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# ISO 9001 Registration

Kuri Tec® hose and tubing is manufactured in our own facilities, which have earned registration under ISO Standard 9001.

The ISO 9000 family of standards represents an international consensus on good management practices with the aim of ensuring that the organization can time and time

again deliver the product or services that meet the customer's quality requirements.

ISO 9001 is a quality assurance model against which a plant's quality system can be audited. The standard sets out the requirements for an organization whose business processes range all the way from design and development to production.

# Kuri Tec® Hose & Tubing Index by Series Number

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# Kuri Tec® Sizing Code

| 02 | = | 1/8"  | 05 | = | 5/16" | 10 | = | 5/8" | 20 | = | 1 1/4" | 36 | = | 2 1/4" |
|----|---|-------|----|---|-------|----|---|------|----|---|--------|----|---|--------|
| 03 | = | 3/16" | 06 | = | 3/8"  | 12 | = | 3/4" | 24 | = | 1 1/2" | 40 | = | 2 1/2" |
| 04 | = | 1/4"  | 08 | = | 1/2"  | 16 | = | 1"   | 32 | = | 2"     | 48 | = | 3"     |

# **Kuri Tec® Color Code**

(Refers to last digit in Series number†)

| 0 | = | Clear/Blue Tint | 2 | = | Orange | 4 | = | Red   | 6 = | Blue  | 8 | = | Grey |
|---|---|-----------------|---|---|--------|---|---|-------|-----|-------|---|---|------|
| 1 | _ | Vellow          | 3 | _ | Black  | 5 | _ | Whit≏ | 7 – | Green |   |   |      |

Example: K1134 Polyair Hose is red . . . the last digit (4) refers to the color code.

† Note: Color code does not apply to 136, 220 and 221 Series Products

NOTE: Although every effort has been made to accurately show the color of the *Kuri Tec®* hoses in this catalog, because of the limitations of four-color process printing, some of the colors shown herein may not be exact.

# **Application Guide**

|  |   | K6155<br>K6158 | K3175 | 136 | A3236 | A3246 | K3150  | K3130  | K7160<br>K7130 | K010     | A1243    | K5090<br>K5094<br>K5096<br>HS5094<br>HS5096 | A1141<br>A1144<br>A1146<br>A1147<br>A1148 | 2840<br>2841<br>2844<br>2846 | 2600 | HSC2840<br>HSC2841<br>HSC2844<br>HSC2846 |
|--|---|----------------|-------|-----|-------|-------|--------|--------|----------------|----------|----------|---|---|------------------------------|------|--|
| Abrasive Slurry Transfer Air Conditioning Drainage Air Lines, Assembly Operations                      |   |                |       |     |       |       |        |        |                | V        |          | V   | V   | ~                            | ~    | V  |
| Air Lines, Breathing Air Lines, Low Temperature  |   |                |       |     |       |       | ~      | ~      | ~              |          | <i>V</i> | v   |   | ~                            |      | V  |
| Air Supply Type C  Car Wash Applications Chemical Transfer Chemical Transfer, Low Temperature          |   |                |       |     |       |       |        |        | ~              |          |          |   |   | <b>V</b>                     |      | ~  |
| Coolant Lines Deionized Water Transfer Drain Lines — Furnace, Refrigeration, etc.                      | ~ | ~              |       |     | V     |       | ~      | ~      | <b>V</b>       | V        |          |   | ~   |                              |      |  |
| Drinking Water Lines, Marine & RV<br>Environmental Clean-Up<br>Flexible Water Connectors               | V |                | ~     | -   | V     |       |        |        |                |          |          |   |   |                              |      |  |
| Food and Beverage Transfer<br>Granular Transfer Lines<br>Ice Making Machines                           |   |                |       |     |       |       | ~      | ~      | ~              | <i>V</i> |          |   |   | •                            | ~    |  |
| Induction Welding Tubing Lines<br>Injection Molding Coolant Lines<br>In-Plant Air/Water Lines          |   |                |       |     |       |       |        |        |                |          |          |   | <b>V</b>                                  |                              |      |  |
| Irrigation Supply Lines<br>Laboratory Tubing<br>Light Duty Washdown                                    |   |                | V     |     |       |       |        |        |                | ~        |          |   |   |                              |      |  |
| Liquid Food Products<br>Lubrication/Air Drop Lines<br>Marine Water Supply Line                         |   |                | V     | V   |       |       | -      | •      | •              |          |          |   | V   | ~                            | ~    |  |
| Metering Pumps<br>Non-Conductive Applications<br>Paint Fluid Transfer — High Pressure                  |   | ~              |       |     |       |       |        |        |                |          |          |   |   | V                            | •    |  |
| Paint Fluid Transfer — Low Pressure<br>Paint Fluid Transfer — Static Conducting<br>Pneumatic Air Lines |   |                |       |     |       |       |        |        |                |          |          | V   |   |                              |      | ~  |
| Pneumatic Lines Pneumatic Parts Transfer Powdered Food Products  |   |                |       |     |       |       | ν<br>ν | ٧<br>٧ | V              |          |          |   |   |                              | V    |  |
| Printing Press Equipment Recreational Vehicle Water Supply Line Robotic Air Lines                      |   |                | ~     | •   |       |       |        |        |                |          |          |   | V   | v                            |      |  |
| Semiconductor Water Transfer<br>Spray, Lawn, Low Pressure<br>Spraying — Agricultural, Vineyard         |   |                |       |     |       |       |        |        |                |          |          |   |   |                              |      |  |
| Spraying, Nursery<br>Spraying, Pest Control<br>Spraying, Tree, High Pressure                           |   |                |       |     |       |       |        |        |                |          |          |   |   |                              |      |  |
| Temporary Residential Water Supply Line<br>Transmission Fluid Transfer<br>Vacuum Pumps & Lines         |   | -              |       |     |       |       |        |        | V              |          |          |   | •   |                              |      |  |
| Washdown, Heavy Duty<br>Water Bottling Equipment<br>Water Distribution Lines                           |   |                |       |     | V     |       |        |        |                | V        |          |   |   |                              |      |  |
| Water Sampling<br>Water Softener Lines<br>Water Transfer   |   |                |       |     |       |       |        |        |                |          |          |   |   |                              |      |  |
| Water Transfer, Potable Watering — Golf Courses, Lawns   | ~ | <b>'</b>       |       |     |       |       | ~      |        |                |          |          |   |   |                              |      |  |

### **CAUTION**

**NOTE:** This application guide provides information on typical hose applications. Actual results may vary due to variances in the operating conditions involving temperature, chemical resistance, working pressure, etc. Please refer to the specifications printed for each product in this catalog, along with information regarding chemical resistance and our Cautionary Statement, to better insure successful results.

# Kuri Tec<sup>®</sup>

# **Application Guide**

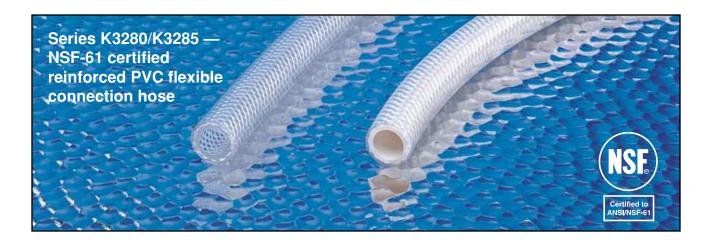
|  |         | K1131          |       | K1171<br>K1174            |       |       |       |        |       |       |       |       |       |       |     |     |
|--|---------|----------------|-------|---------------------------|-------|-------|-------|--------|-------|-------|-------|-------|-------|-------|-----|-----|
|  |         | K1134          |       | K1176<br>HS1171<br>HS1174 |       |       |       |        |       |       |       |       |       |       |     |     |
|  | HSC2950 | K1136<br>K1137 | K1154 | HS1171                    |       |       |       |        |       | A1628 |       | K4131 |       |       |     |     |
|  | HSC2950 | K1138          | K1156 | HS1176                    | A1307 | A1317 | A4143 | A4143S | A4086 | A1661 | A1687 | A1251 | K4350 | A9350 | 220 | 221 |
| Abrasive Slurry Transfer<br>Air Conditioning Drainage<br>Air Lines, Assembly Operations                | V       | ~              | V     | ~                         |       |       |       |        |       |       |       |       |       |       | V   | V   |
| Air Lines, Breathing   |         |                |       |                           |       |       |       |        |       |       |       |       |       |       |     |     |
| Air Lines, Low Temperature<br>Air Supply Type C  | ~       | ~              |       | -                         |       |       |       |        |       |       |       |       |       |       |     |     |
| Car Wash Applications Chemical Transfer Chemical Transfer, Low Temperature                             |         |                |       |                           |       |       | 7     |        | 7     |       |       |       |       |       |     |     |
| Coolant Lines  |         |                |       |                           |       |       |       |        |       |       |       |       |       |       |     |     |
| Deionized Water Transfer<br>Drain Lines — Furnace, Refrigeration, etc.                                 |         |                |       |                           |       |       |       |        |       |       |       |       |       |       | V   | ~   |
| Drinking Water Lines, Marine & RV<br>Environmental Clean-Up<br>Flexible Water Connectors               |         |                |       |                           |       |       |       |        |       |       |       |       |       |       |     |     |
| Food and Beverage Transfer<br>Granular Transfer Lines<br>Ice Making Machines                           |         |                |       |                           |       |       |       |        |       |       |       |       |       |       | V   |     |
| Induction Welding Tubing Lines Injection Molding Coolant Lines In-Plant Air/Water Lines                |         | _              | V     |                           |       |       |       |        |       |       |       |       |       |       |     |     |
| Irrigation Supply Lines  |         |                |       |                           |       | ~     |       |        |       |       |       |       |       |       |     |     |
| Laboratory Tubing<br>Light Duty Washdown   |         |                |       |                           | ~     |       |       |        |       |       |       |       |       |       |     |     |
| Liquid Food Products<br>Lubrication/Air Drop Lines<br>Marine Water Supply Line                         |         |                |       |                           |       |       |       |        |       |       |       |       |       |       | •   |     |
| Metering Pumps<br>Non-Conductive Applications<br>Paint Fluid Transfer — High Pressure                  |         |                |       |                           |       |       |       |        | V     |       |       |       |       |       |     |     |
| Paint Fluid Transfer — Low Pressure<br>Paint Fluid Transfer — Static Conducting<br>Pneumatic Air Lines | V       | V              | V     | V                         |       |       | ~     | V      | ~     |       |       |       |       |       |     |     |
| Pneumatic Lines Pneumatic Parts Transfer Powdered Food Products  |         |                |       |                           |       |       |       |        |       |       |       |       |       |       | •   | •   |
| Printing Press Equipment<br>Recreational Vehicle Water Supply Line<br>Robotic Air Lines                |         |                |       |                           |       |       |       |        |       |       |       |       |       |       |     |     |
| Semiconductor Water Transfer<br>Spray, Lawn, Low Pressure<br>Spraying — Agricultural, Vineyard         |         |                |       |                           |       |       |       |        |       | V     |       | V     | ~     | ~     |     |     |
| Spraying, Nursery<br>Spraying, Pest Control<br>Spraying, Tree, High Pressure                           |         |                |       |                           |       |       |       |        | V     | ~     | V     | ~     |       |       |     |     |
| Temporary Residential Water Supply Line<br>Transmission Fluid Transfer<br>Vacuum Pumps & Lines         |         |                |       |                           |       |       |       |        |       |       |       |       |       |       |     |     |
| Washdown, Heavy Duty<br>Water Bottling Equipment<br>Water Distribution Lines                           |         |                |       |                           |       | ~     |       |        |       |       |       | ~     |       |       | V   |     |
| Water Sampling<br>Water Softener Lines   |         |                |       |                           |       |       |       |        |       |       |       |       |       |       | V   |     |
| Water Transfer   |         | ~              | ~     | ~                         | ~     | ~     |       |        |       |       |       |       |       |       |     |     |
| Water Transfer, Potable Watering — Golf Courses, Lawns   |         |                |       |                           | V     | V     |       |        |       |       |       |       |       |       |     |     |

### **CAUTION**

**NOTE:** This application guide provides information on typical hose applications. Actual results may vary due to variances in the operating conditions involving temperature, chemical resistance, working pressure, etc. Please refer to the specifications printed for each product in this catalog, along with information regarding chemical resistance and our Cautionary Statement, to better insure successful results.

# PVC Flexible Connector Hose — NSF-61 Certified

# Kuri Tec



A flexible, non-contaminating NSF-61 certified hose that is ideal for use in drinking water applications.

#### Construction:

- Tube Clear K3280¹ or white K3285² tube compound is formulated in compliance with applicable FDA³ regulations, certified under NSF-61⁴, and complies with California Proposition 65⁵
- Reinforcement High tensile strength multifilament polyester yarn
- Cover Clear PVC compound formulated in compliance with applicable FDA<sup>3</sup> regulations, certified under NSF-61<sup>4</sup>, and complies with California Proposition 65<sup>5</sup>

#### Features:

• Made with PVC compounds certified under NSF-61

- When coupled properly, hose will pass high temperature extreme test requirement at 180°F (82°C) for 0.5 hr duration (ASME A112.18.1M, Section 6.7) and I. A. P. M. O. PS74-95 Section 5.2
- Closely-packed white polyester yarn design ensures minimal expansion of the hose while in service
- Silicone-free
- One-piece lengths (cut pieces also available)

#### Applications:

- Flexible water connectors
- Transfer of potable water
- Transfer of deionized water
- Water transfer lines for semiconductor manufacturing, where applicable

Service Temperature Range: 14°F (-10°C) to 140°F (60°C)

Domestic Hot and Cold Water

#### Series K3280/K3285 — NSF-61 PVC hose

| Seri           | es No.              | 0:           | Nomi | nal ID | Nomi | nal OD |                  | orking †<br>re (PSI) | Standard        | Approx.         |
|----------------|---------------------|--------------|------|--------|------|--------|------------------|----------------------|-----------------|-----------------|
| K3280<br>Clear | K3285<br>White Tube | Size<br>Code | (In) | (mm)   | (In) | (mm)   | @ 70°F<br>(20°C) | @ 150°F<br>(66°C)    | Length<br>Coils | Wt. per<br>Pkg. |
| ~              | V                   | 04           | .260 | 6.6    | .440 | 11.1   | 180              | 125                  | 500 ft.         | 28 lbs.         |
| \ \            | <i> </i>            | 05           | .320 | 8.1    | .485 | 12.3   | 180              | 125                  | 500 ft.         | 29 lbs.         |
| \ \ \          | <i>v</i>            | 06           | .380 | 9.7    | .595 | 15.1   | 180              | 125                  | 500 ft.         | 46 lbs.         |
| <b>/</b>       | <b>/</b>            | 08           | .505 | 12.8   | .740 | 18.8   | 180              | 125                  | 500 ft.         | 64 lbs.         |

† Note: Working Pressure decreases as temperature increases. The pressure ratings of hose assemblies can be affected by the type of fitting used and the coupling procedure. We cannot be responsible for the suitability of the user's fittings or the coupling method used.

Use of compression fittings with Kuri Tec® yarn-reinforced hose is not recommended. Hose claims involving use of these fittings will be disallowed.

#### **Compliance Footnotes:**

1 Clear PVC compound KC042.

- 2 White PVC compound KC042-W.
- 3 FDA The PVC ingredients used are sanctioned for food contact use under CFR title 21, parts 170-199.
- 4 NSF Certified by NSF under standard 61, for use in drinking water system components to a maximum use level of 90 square inches per litre. This certification applies only to the hose, including tube and cover materials. Other components attached to the hose are not included.
- 5 Proposition 65 Compounds contain no substances designated as hazardous under California Proposition 65.

# "High Purity" PVC Water Hose



#### Construction:

- Tube Clear PVC compound, formulated in compliance with FDA1, NSF2 and California Proposition 653
- Reinforcement High tensile strength yarn
- Cover Non-toxic PVC compound, available in two solid colors: K6155 - white and K6158 - grey. Additional non-toxic colors (red, black, blue, green and sand) are available on a special order basis.

#### Features:

- Made with PVC compounds certified under NSF-51/NSF-61
- White or gray jacket to reduce tendency for algae growth and U. V. degradation in warm sunny applications
- Non-marking cover

- Non-perforated cover
- Non-conductive compounds
- Silicone-free
- One-piece lengths

#### **Applications:**

- Transfer of potable water
- Transfer of deionized water
- Induction welding tubing lines
- Temporary residential water supply lines
- Water transfer lines for semiconductor manufacturing, where applicable
- Applications requiring a non-conductive hose



Service Temperature Range: +25°F (-4°C) to 150°F (65°C)

#### Series K6155/K6158 — Non-toxic PVC hose

|                | dard<br>Colors | Size | Nomi  | nal ID | Nomi  | nal OD |                 | ı Working <sup>†</sup><br>re (PSI) | Standard<br>Length | Approx.<br>Wt. |
|----------------|----------------|------|-------|--------|-------|--------|-----------------|------------------------------------|--------------------|----------------|
| K6155<br>White | K6158<br>Grey  | Code | (In)  | (mm)   | (In)  | (mm)   | @70°F<br>(20°C) | @122°F<br>(50°C)                   | Coils              | per Pkg.       |
|                | <b>V</b>       | 06   | 3/8   | 9.5    | .594  | 15.1   | 225             | 125                                | 300 ft.            | 27 lbs.        |
| <b>V</b>       | <b>/</b>       | 08   | 1/2   | 12.7   | .750  | 19.1   | 200             | 100                                | 300 ft.            | 40 lbs.        |
| <b>V</b>       | <b>/</b>       | 12   | 3/4   | 19.1   | 1.031 | 26.2   | 150             | 85                                 | 200 ft.            | 43 lbs.        |
| <b>V</b>       | <b>/</b>       | 16   | 1     | 25.4   | 1.300 | 33.0   | 125             | 75                                 | 200 ft.            | 59 lbs.        |
|                | <b>/</b>       | 24   | 1 1/2 | 38.1   | 1.938 | 49.2   | 100             | 50                                 | 100 ft.            | 64 lbs.        |

† Note: Working Pressure decreases as temperature increases. Pressure ratings can only be obtained with proper coupling procedures. Use of compression fittings with Kuri Tec® yarn-reinforced hose is not recommended. Hose claims involving use of these fittings will be disallowed.

#### **Compliance Footnotes:**

- 1 FDA CFR Title 21 Parts 170 to 199.
- 2 NSF The tube compound is certified under NSF-51, Plastic materials and components used in food equipment and is also certified under NSF-61 for drinking water system components. (Not to exceed a use of 90 square inches per litre.)
- 3 Proposition 65 Compounds contain no substances designated as hazardous under California Proposition 65.

# Non-Toxic Marine & RV Water Hose Kuri Tec



A water filler hose specifically designed for the recreational vehicle and marine markets.

#### Construction:

- Tube White PVC compound, formulated in compliance with FDA¹ and California Proposition 65³
- Reinforcement High tensile strength yarn
- Cover White PVC compound, formulated in compliance with FDA¹ and California Proposition 65³

#### Features:

- Compounded from ingredients shown on the FDAsanctioned list CFR Title 21 Parts 170 to 199
- Lightweight and extremely flexible
- Good resistance to U. V. and weather aging
- Available in assemblies on special order
- Silicone-free
- One-piece lengths

#### **Applications:**

- Specifically designed and formulated for use as water filler hose for the recreational vehicle and marine markets
- Drinking water lines in recreational vehicles and pleasure craft
- Suitable for non-toxic applications where a transparent hose is not required
- Light duty washdown

Service Temperature Range: +32°F (0°C) to 125°F (+52°C)

Specifically designed for use in water pressure lines on recreational vehicles and boats — certified with I. A. P. M. O. for cold water systems.

#### **Construction:**

- Tube White PVC compound, formulated in compliance with FDA<sup>1</sup>, NSF<sup>2</sup> and California Proposition 65<sup>3</sup>
- Reinforcement High tensile strength yarn
- Cover Clear PVC compound, formulated in compliance with FDA¹, NSF² and California Proposition 65³

#### Features:

- Certified with I. A. P. M. O. for use in recreational vehicle cold water systems
- I. A. P. M. O. T®-2008 listing printed on hose
- Silicone-free
- One-piece lengths

#### **Applications:**

- Specifically designed and formulated for use as water pressure lines in the recreational vehicle and marine markets
- Drinking water lines in recreational vehicles and pleasure craft
- Suitable for non-toxic and potable water applications where a transparent hose is not required

Service Temperature Range:

+25°F (-4°C) to 125°F (+52°C)

### Series K3175 — Food grade PVC marine/RV water hose

| Series | Size | _    | ninal<br>D | _    | ninal<br>D |               | Vorking <sup>†</sup><br>Ire (PSI) | Standard<br>Length | Approx.<br>Wt. per |  |
|--------|------|------|------------|------|------------|---------------|-----------------------------------|--------------------|--------------------|--|
| No.    | Code | (In) | (mm)       | (In) | (mm)       | @ 70°F (20°C) | @ 122°F (50°C)                    |                    | Pkg.               |  |
| K3175  | 80   | 1/2  | 12.7       | .688 | 17.5       | 150           | 60                                | 500 ft.            | 50 lbs.            |  |
| K3175  | 10   | 5/8  | 15.9       | .813 | 20.7       | 125           | 50                                | 300 ft.            | 36 lbs.            |  |

## <u>Series 136 — Food grade PVC cold water hose – I. A. P. M. O. listed</u>

| Series | Size | _    | ninal<br>D | _    | ninal<br>ID |               | Vorking†<br>Ire (PSI) | Standard<br>Length | Approx.<br>Wt. per |
|--------|------|------|------------|------|-------------|---------------|-----------------------|--------------------|--------------------|
| No.    | Code | (In) | (mm)       | (In) | (mm)        | @ 70°F (20°C) | @ 122°F (50°C)        |                    | Pkg.               |
| 136    | 06   | 3/8  | 9.5        | .565 | 16.7        | 150           | 60                    | 500 ft.            | 39 lbs.            |
| 136    | 08   | 1/2  | 12.7       | .688 | 17.5        | 150           | 60                    | 500 ft.            | 49 lbs.            |
| 136    | 10   | 5/8  | 15.9       | .813 | 20.7        | 150           | 60                    | 300 ft.            | 36 lbs.            |

† Note: Working Pressure decreases as temperature increases. Pressure ratings can only be obtained with proper coupling procedures. Use of compression fittings with Kuri Tec® yarn-reinforced hose is not recommended. Hose claims involving use of these fittings will be disallowed.

#### **Compliance Footnotes:**

- 1 FDA CFR Title 21 Parts 170 to 199.
- 2 NSF The materials are certified under NSF-61 for drinking water system components (Not to exceed a use of 90 square inches per litre.)
- 3 Proposition 65 Compounds contain no substances designated as hazardous under California Proposition 65.

8 KKTCA1002

# "High Purity" LLDPE Water Hose



A flexible, non-contaminating food grade hose that is ideal for use in food, beverage and water applications.

#### Construction:

- Tube Special coextruded tube with the inner contact surface meeting applicable FDA1, NSF2, and Proposition 653 requirements.
- Reinforcement High tensile strength yarn
- Cover Blue EVA copolymer . . . complies with FDA regulation 21 CFR 177.1350

#### Features:

- Extremely light weight
- Good resistance to U. V. and weather aging
- Exceptionally low hydrocarbon extraction into water, as compared to the EPA MCL's (maximum contaminant levels) for drinking water
- Extremely low hydrocarbon absorption from contaminated water samples
- Excellent low temperature flexibility

- Excellent chemical resistance
- Silicone-free
- One-piece lengths
- Opaque jacket reduces tendency for algae growth in warm, sunny applications





# ANSI/NSF 61

#### **Applications:**

- Transfer of food, beverages and water
- Transfer of deionized water
- Water sampling
- Water bottling equipment
- Water transfer lines for semiconductor manufacturing, where applicable
- Temporary residential water supply lines
- Environmental clean-up applications involving water and chemicals

Service Temperature Range: -10°F (-23°C) to 140°F (60°C)

#### Series A3236 — Non-toxic LLDPE hose

| Series         | Size     | Nomi       | nal ID       | Nomi          | nal OD       |                  | lorking <sup>†</sup><br>re (PSI) | Standard<br>Length | Approx.<br>Wt. per |
|----------------|----------|------------|--------------|---------------|--------------|------------------|----------------------------------|--------------------|--------------------|
| No.            | Code     | (In)       | (mm)         | (In)          | (mm)         | @ 70°F<br>(20°C) | @ 122°F<br>(50°C)                | Coils              | Pkg.               |
| A3236<br>A3236 | 08<br>12 | 1/2<br>3/4 | 12.7<br>19.1 | .750<br>1.125 | 19.1<br>28.6 | 200<br>200       | 100<br>100                       | 300 ft.<br>300 ft. | 33 lbs.<br>68 lbs. |
| A3236          | 16       | 1          | 25.4         | 1.375         | 34.9         | 150              | 75                               | 200 ft.            | 59 lbs.            |

\* For applications requiring minimal stretch, this hose is also available with longitudinal cords by ordering Series A3246 . . . check with factory for minimum quantity requirements.

Use of compression fittings with Kuri Tec® yarn-reinforced hose is not recommended. Hose claims involving use of these fittings will be disallowed. † Note: Working Pressure decreases as temperature increases. Pressure ratings can only be obtained with proper coupling procedures.

#### **Compliance Footnotes:**

- 1 FDA Material complies with 21 CFR 177.1520 (c) 3.1 (b).
- 2 NSF Hose is listed under Standard 51, Plastic Materials and Components used in Food Equipment for food contact up to 125° F., and under NSF-61 for transfer of drinking water up to a temperature of 87° F.
- 3 Proposition 65 Compounds contain no substances designated as hazardous under California Proposition 65.



#### **Construction:**

Crystal clear PVC compound, formulated with ingredients in compliance with applicable FDA¹ requirements, meets USDA², 3A³ and NSF⁴ criteria and California Proposition 65⁵. Reinforced with spiraled polyester yarn and multiple longitudinal polyester yarn (including orange yarns for identification) to reduce elongation under pressure.

#### Features:

- Constructed with non-toxic compounds
- NSF-51 and NSF-61 certified material
- Crystal clear allows visual confirmation of product flow
- Longitudinally-reinforced to reduce elongation under pressure
- Light weight
- Metric sizes available

- Self-extinguishing
- Non-marking
- Silicone-free
- Non-conductive
- One-piece lengths
- Resistant to chemicals (see chemical-resistance chart)
- Compound hardness 73 ±3 Shore "A"



CERTIFIED UNDE STANDARD 51

#### **Applications:**

- Food & beverage dispensing
- Deionized water
- Liquid food products

Powdered food products

- Air and water lines
- Potable water transfer
- Air breathing lines
- Pneumatic lines
- Packaging machines

**Service Temperature Range:** +25°F (-4°C) to 150°F (+65°C)

# CLEARBRAID® K3150 Series RF — Standard wall PVC food & beverage hose

| Series | Size | Nominal<br>ID |      | Nominal<br>OD |      |               | lorking <sup>†</sup><br>re (PSI) | Standard Lengths |            | Approx. Wt.<br>per Pkg. |            |
|--------|------|---------------|------|---------------|------|---------------|----------------------------------|------------------|------------|-------------------------|------------|
| No.    | Code | (In)          | (mm) | (In)          | (mm) | @ 70°F (20°C) | @ 122°F (50°C)                   | Full Coil        | Cut Length | Full Coil               | Cut Length |
| K3150  | 03   | 3/16          | 4.8  | .375          | 9.5  | 250           | 150                              | 300 ft.          | 100 ft.    | 13 lbs.                 | 4 lbs.     |
| K3150  | 04   | 1/4           | 6.5  | .438          | 11.1 | 250           | 150                              | 300 ft.          | 100 ft.    | 17 lbs.                 | 6 lbs.     |
| K3150  | 05   | 5/16          | 7.9  | .531          | 13.5 | 250           | 135                              | 300 ft.          | 100 ft.    | 24 lbs.                 | 8 lbs.     |
| K3150  | 06   | 3/8           | 9.5  | .594          | 15.1 | 225           | 125                              | 300 ft.          | 100 ft.    | 27 lbs.                 | 9 lbs.     |
| K3150  | 08   | 1/2           | 12.7 | .750          | 19.1 | 200           | 100                              | 300 ft.          | 100 ft.    | 40 lbs.                 | 13 lbs.    |
| K3150  | 10   | 5/8           | 15.9 | .891          | 22.6 | 200           | 100                              | 200 ft.          | 100 ft.    | 35 lbs.                 | 18 lbs.    |
| K3150  | 12   | 3/4           | 19.1 | 1.031         | 26.2 | 150           | 85                               | 200 ft.          | 100 ft.    | 43 lbs.                 | 22 lbs.    |
| K3150  | 16   | 1             | 25.4 | 1.300         | 33.0 | 125           | 75                               | 200 ft.          | 100 ft.    | 59 lbs.                 | 30 lbs.    |
| K3150  | 20   | 1 1/4         | 31.8 | 1.620         | 41.1 | 100           | 55                               | 100 ft.          | 50 ft.     | 45 lbs.                 | 23 lbs.    |
| K3150  | 24   | 1 1/2         | 38.1 | 1.938         | 49.2 | 100           | 50                               | 100 ft.          | 50 ft.     | 64 lbs.                 | 32 lbs.    |
| K3150  | 32   | 2             | 50.8 | 2.490         | 63.2 | 75            | 35                               | 100 ft.          | 50 ft.     | 94 lbs.                 | 47 lbs.    |
| K3150  | MM04 | .157          | 4.0  | .354          | 9.0  | 250           | 150                              | _                | 100 ft.    | _                       | 4 lbs.     |
| K3150  | MM06 | .236          | 6.0  | .433          | 11.0 | 250           | 150                              |                  | 100 ft.    |                         | 6 lbs.     |
| K3150  | 80MM | .315          | 8.0  | .531          | 13.5 | 250           | 135                              |                  | 100 ft.    |                         | 8 lbs.     |
| K3150  | MM10 | .394          | 10.0 | .630          | 16.0 | 225           | 125                              | _                | 100 ft.    | _                       | 10 lbs.    |
| K3150  | MM12 | .472          | 12.0 | .709          | 18.0 | 200           | 100                              |                  | 100 ft.    |                         | 12 lbs.    |
| K3150  | MM19 | .748          | 19.0 | 1.024         | 26.0 | 150           | 85                               | _                | 100 ft.    | _                       | 21 lbs.    |

† Note: Working Pressure decreases as temperature increases. Pressure ratings can only be obtained with proper coupling procedures. Use of compression fittings with Kuri Tec® yarn-reinforced hose is not recommended. Hose claims involving use of these fittings will be disallowed.

#### **Compliance Footnotes:**

- 1 FDA CFR Title 21 Parts 170 to 199.
- 2 USDA Chemically suitable for general use in slaughtering, processing, transporting, or storage areas in direct contact with meat or poultry food product prepared under Federal Inspection.
- 3 3A Complies with the criteria in 3-A Sanitary Standards for Multiple-use Plastic Materials used as Product Contact Surfaces for Dairy Equipment, Number 20-18 as amended.
- 4 NSF Certified under Standard 51, Plastic materials and components used in food equipment. Compound is also certified under Standard NSF-61 for drinking water system components.
- 5 Proposition 65 Compounds contain no substances designated as hazardous under California Proposition 65.



#### **Construction:**

Crystal clear PVC compound, formulated with ingredients in compliance with applicable FDA¹ requirements, meets USDA², 3A³ and NSF⁴ criteria and California Proposition 65⁵. Reinforced with spiraled polyester yarn and longitudinal blue tracer yarn for identification.

#### Features:

- Constructed with non-toxic compounds
- NSF-51 and NSF-61 certified material
- Crystal clear allows visual confirmation of product flow
- Light weight
- Self-extinguishing
- Non-marking
- Silicone-free
- · One-piece lengths

- Resistant to chemicals (see chemical-resistance chart)
- Compound hardness 73 ±3 Shore "A"

#### Applications:

- Food & beverage dispensing
- Deionized water
- Liquid food products
- Air and water lines
- Powdered food products
- Potable water transfer
- Air breathing lines
- Pneumatic lines
- Packaging machines



Service Temperature Range: +25°F (-4°C) to 150°F (+65°C)

### CLEARBRAID® K3130 Series BF — Heavy wall PVC food & beverage hose

| Series | Size | Nominal<br>ID |      | Nominal<br>OD |      |               | lorking <sup>†</sup><br>re (PSI) | Standard  | d Lengths  | Approx. Wt.<br>per Pkg. |            |  |
|--------|------|---------------|------|---------------|------|---------------|----------------------------------|-----------|------------|-------------------------|------------|--|
| No.    | Code | (In)          | (mm) | (In)          | (mm) | @ 70°F (20°C) | @ 122°F (50°C)                   | Full Coil | Cut Length | Full Coil               | Cut Length |  |
| K3130  | 02   | 1/8           | 3.2  | .328          | 8.3  | 350           | 200                              | 300 ft.   | 100 ft.    | 12 lbs.                 | 4 lbs.     |  |
| K3130  | 03   | 3/16          | 4.8  | .406          | 10.3 | 350           | 200                              | 300 ft.   | 100 ft.    | 17 lbs.                 | 6 lbs.     |  |
| K3130  | 04   | 1/4           | 6.5  | .500          | 12.7 | 350           | 200                              | 300 ft.   | 100 ft.    | 24 lbs.                 | 8 lbs.     |  |
| K3130  | 05   | 5/16          | 7.9  | .563          | 14.3 | 275           | 160                              | 300 ft.   | 100 ft.    | 28 lbs.                 | 9 lbs.     |  |
| K3130  | 06   | 3/8           | 9.5  | .625          | 15.9 | 275           | 145                              | 300 ft.   | 100 ft.    | 32 lbs.                 | 11 lbs.    |  |
| K3130  | 80   | 1/2           | 12.7 | .813          | 20.7 | 250           | 130                              | 300 ft.   | 100 ft.    | 52 lbs.                 | 17 lbs.    |  |
| K3130  | 10   | 5/8           | 15.9 | 1.000         | 25.4 | 225           | 125                              | 200 ft.   | 100 ft.    | 52 lbs.                 | 26 lbs.    |  |
| K3130  | 12   | 3/4           | 19.1 | 1.125         | 28.6 | 200           | 120                              | 200 ft.   | 100 ft.    | 60 lbs.                 | 30 lbs.    |  |
| K3130  | 16   | 1             | 25.4 | 1.375         | 34.9 | 150           | 85                               | 200 ft.   | 100 ft.    | 76 lbs.                 | 38 lbs.    |  |
| K3130  | 20   | 1 1/4         | 31.8 | 1.750         | 44.5 | 125           | 75                               | 100 ft.   | 50 ft.     | 64 lbs.                 | 32 lbs.    |  |
| K3130  | 24   | 1 1/2         | 38.1 | 2.000         | 50.8 | 100           | 65                               | 100 ft.   | 50 ft.     | 75 lbs.                 | 38 lbs.    |  |
| K3130  | 32   | 2             | 50.8 | 2.500         | 63.5 | 75            | 55                               | 100 ft.   | 50 ft.     | 96 lbs.                 | 48 lbs.    |  |

† **Note:** Working Pressure decreases as temperature increases. Pressure ratings can only be obtained with proper coupling procedures. Use of compression fittings with Kuri Tec® yarn-reinforced hose is not recommended. Hose claims involving use of these fittings will be disallowed.

#### **Compliance Footnotes:**

- 1 FDA CFR Title 21 Parts 170 to 199.
- 2 USDA Chemically suitable for general use in slaughtering, processing, transporting, or storage areas in direct contact with meat or poultry food product prepared under Federal Inspection.
- 3 3A Complies with the criteria in 3-A Sanitary Standards for Multiple-use Plastic Materials used as Product Contact Surfaces for Dairy Equipment, Number 20-18 as amended.
- 4 NSF Certified under Standard 51, Plastic materials and components used in food equipment. Compound is also certified under Standard NSF-61 for drinking water system components.
- 5 Proposition 65 Compounds contain no substances designated as hazardous under California Proposition 65.



Standard wall food and beverage grade vacuum/ transfer hose with rated working pressures.

#### Construction:

Crystal clear PVC compound, formulated with ingredients in compliance with applicable FDA¹ requirements, meets USDA<sup>2</sup>, 3A<sup>3</sup> and NSF<sup>4</sup> criteria and California Proposition 655. Reinforced with helically-wound spring steel wire.

#### Features:

- 29.9" HG vacuum rating
- Spiral wire reinforcement prevents kinking or collapsing ... hose diameter will not expand under normal rated
- Crystal clear allows visual confirmation of product flow
- Glass-smooth interior reduces material buildup

- Electrogalvanized helical steel wire can be used for static dissipation (see below#)
- Resistant to chemicals (see chemical-resistance chart)
- Self-extinguishing
- Non-marking
- Non-toxic
- Silicone-free

Coolant lines

Air breathing lines

- One-piece lengths
- Special cut piece lengths available through 1" ID size — check with factory

#### Applications:

- Full vacuum lines
- Industrial vacuum pumps
- Food & beverage dispensing
   Deionized water systems
- Air and water supply lines
- Pneumatic parts transfer
- Car wash applications

CERTIFIED UNDER

Series K7160 — PVC food & beverage vacuum/transfer hose — crystal clear

| Series | Size | Nomi  | ninal ID Nominal OD |       |      |               | Norking†<br>Ire (PSI) | Standard<br>Length | Approx.<br>Wt. per | Min. Bend<br>Radius |
|--------|------|-------|---------------------|-------|------|---------------|-----------------------|--------------------|--------------------|---------------------|
| No.    | Code | (In)  | (mm)                | (In)  | (mm) | @ 70°F (20°C) | @ 122°F (50°C)        | Coils              | Pkg.               | @ 70°F              |
| K7160  | 04   | 1/4   | 6.4                 | .460  | 11.7 | 150           | 70                    | 100 ft.            | 7 lbs.             | 1"                  |
| K7160  | 06   | 3/8   | 9.5                 | .600  | 15.2 | 100           | 70                    | 100 ft.            | 11 lbs.            | 1 1/2"              |
| K7160  | 80   | 1/2   | 12.7                | .750  | 19.1 | 100           | 70                    | 100 ft.            | 15 lbs.            | 2"                  |
| K7160  | 10   | 5/8   | 15.9                | .891  | 22.6 | 100           | 50                    | 100 ft.            | 19 lbs.            | 2 1/2"              |
| K7160  | 12   | 3/4   | 19.1                | 1.031 | 26.2 | 70            | 50                    | 100 ft.            | 24 lbs.            | 3"                  |
| K7160  | 16   | 1     | 25.4                | 1.297 | 32.9 | 70            | 35                    | 100 ft.            | 33 lbs.            | 4"                  |
| K7160  | 20   | 1 1/4 | 31.8                | 1.609 | 40.9 | 70            | 35                    | 50 ft.             | 25 lbs.            | 5"                  |
| K7160  | 24   | 1 1/2 | 38.1                | 1.860 | 47.2 | 50            | 30                    | 50 ft.             | 29 lbs.            | 6"                  |
| K7160  | 32   | 2     | 50.8                | 2.391 | 60.7 | 50            | 30                    | 50 ft.             | 42 lbs.            | 8"                  |
| K7160  | 36   | 2 1/4 | 57.2                | 2.750 | 69.9 | 50            | 30                    | 50 ft.             | 58 lbs.            | 9"                  |
| K7160  | 40   | 2 1/2 | 63.5                | 3.000 | 76.2 | 50            | 30                    | 50 ft.             | 69 lbs.            | 10"                 |
| K7160  | 48   | 3     | 76.2                | 3.500 | 88.9 | 50            | 30                    | 50 ft.             | 81 lbs.            | 12"                 |

Service Temperature Range: +25°F (-4°C) to 150°F (+65°C)

† Note: Working Pressure decreases as temperature increases. Pressure ratings can only be obtained with proper coupling procedures.

‡ CAUTION: This product is designed to dissipate static electricity when the metal wire is properly connected to ground, through the fitting or other means. **Compliance Footnotes:** 

#### 1 FDA — CFR Title 21 Parts 170 to 199.

- USDA Chemically suitable for general use in slaughtering, processing, transporting, or storage areas in direct contact with meat or poultry food product prepared under Federal Inspection.
- 3A Complies with the criteria in 3-A Sanitary Standards for Multiple-use Plastic Materials used as Product Contact Surfaces for Dairy Equipment, Number 20-18 as amended.
- NSF Certified under Standard 51, Plastic materials and components used in food equipment. Compound is also certified under Standard NSF-61 for drinking water system components.
- 5 Proposition 65 Compounds contain no substances designated as hazardous under California Proposition 65.

# **PVC Food & Beverage Hose**



Heavy wall food and beverage grade vacuum/transfer hose with rated working pressures.

#### **Construction:**

Crystal clear PVC compound, formulated with ingredients in compliance with applicable FDA¹ requirements, meets USDA², 3A³ and NSF⁴ criteria and California Proposition 65⁵. Reinforced with helically-wound spring steel wire.

#### Features:

- 29.9" HG vacuum rating
- Spiral wire reinforcement prevents kinking or collapsing

   . . . hose diameter will not expand under normal rated working pressures
- Crystal clear allows visual confirmation of product flow
- Glass-smooth interior reduces material buildup
- Electrogalvanized helical steel wire can be used for static dissipation (see below‡)

- Resistant to chemicals (see chemical-resistance chart)
- Compound hardness 73 ±3 Shore "A"
- Self-extinguishing
- Non-markingNon-toxic
- Silicone-free
- One-piece lengths
- Special cut piece lengths available through 1" ID size — check with factory

#### Applications:

- Full vacuum lines
- Industrial vacuum pumps
- Food & beverage dispensing
- · Air and water supply lines
- Car wash applications
- Coolant lines
- Air breathing lines
- Pneumatic parts transfer
- Deionized water systems



Service Temperature Range: +25°F (-4°C) to 150°F (+65°C)

### Series K7130 — PVC food & beverage vacuum/transfer hose — crystal clear

| Series | Size | Nomi  | nal ID | Nomi  | nal OD |               | Vorking <sup>†</sup><br>Ire (PSI) | Standard<br>Length | Approx.<br>Wt. per | Min. Bend<br>Radius |
|--------|------|-------|--------|-------|--------|---------------|-----------------------------------|--------------------|--------------------|---------------------|
| No.    | Code | (In)  | (mm)   | (In)  | (mm)   | @ 70°F (20°C) | @ 122°F (50°C)                    | Coils              | Pkg.               | @ 70°F              |
| K7130  | 04   | 1/4   | 6.4    | .500  | 12.7   | 250           | 80                                | 100 ft.            | 10 lbs.            | 1"                  |
| K7130  | 06   | 3/8   | 9.5    | .625  | 15.9   | 150           | 80                                | 100 ft.            | 13 lbs.            | 1 1/2"              |
| K7130  | 08   | 1/2   | 12.7   | .813  | 20.7   | 150           | 80                                | 100 ft.            | 21 lbs.            | 2"                  |
| K7130  | 10   | 5/8   | 15.9   | 1.000 | 25.4   | 150           | 65                                | 100 ft.            | 30 lbs.            | 2 1/2"              |
| K7130  | 12   | 3/4   | 19.1   | 1.125 | 28.6   | 150           | 65                                | 100 ft.            | 36 lbs.            | 3"                  |
| K7130  | 16   | 1     | 25.4   | 1.375 | 34.9   | 100           | 45                                | 100 ft.            | 44 lbs.            | 4"                  |
| K7130  | 20   | 1 1/4 | 31.8   | 1.750 | 44.5   | 100           | 50                                | 50 ft.             | 37 lbs.            | 5"                  |
| K7130  | 24   | 1 1/2 | 38.1   | 2.000 | 50.8   | 100           | 35                                | 50 ft.             | 42 lbs.            | 6"                  |
| K7130  | 32   | 2     | 50.8   | 2.500 | 63.5   | 100           | 35                                | 50 ft.             | 56 lbs.            | 8"                  |

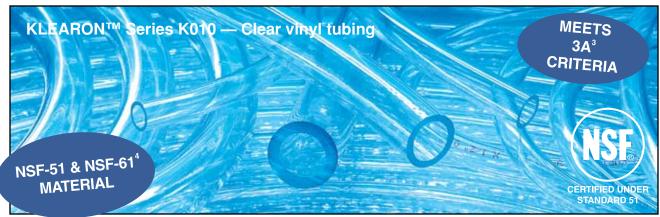
- † Note: Working Pressure decreases as temperature increases. Pressure ratings can only be obtained with proper coupling procedures.
- **‡ CAUTION:** This product is designed to dissipate static electricity when the metal wire is properly connected to ground, through the fitting or other means.

#### **Compliance Footnotes:**

- 1 FDA CFR Title 21 Parts 170 to 199.
- 2 USDA Chemically suitable for general use in slaughtering, processing, transporting, or storage areas in direct contact with meat or poultry food product prepared under Federal Inspection.
- 3 3A Complies with the criteria in 3-A Sanitary Standards for Multiple-use Plastic Materials used as Product Contact Surfaces for Dairy Equipment, Number 20-18 as amended.
- 4 NSF Certified under Standard 51, Plastic materials and components used in food equipment. Compound is also certified under Standard NSF-61 for drinking water system components.
- 5 Proposition 65 Compounds contain no substances designated as hazardous under California Proposition 65.

BECAUSE WE CONTINUALLY EXAMINE WAYS TO IMPROVE OUR PRODUCTS, WE RESERVE THE RIGHT TO ALTER SPECIFICATIONS OR DISCONTINUE PRODUCTS WITHOUT PRIOR NOTICE.

KKTCA0603 13



Non-toxic food and beverage grade non-reinforced clear vinyl tubing

ID

Series

No.

Size

Code

**Nominal** 

OD

Wall

Pressure

Standard

Length

Approx.

#### Construction:

Crystal clear PVC compound. formulated with ingredients in compliance with applicable FDA1 requirements, meets USDA<sup>2</sup>, 3A<sup>3</sup> and NSF4 criteria and California Proposition 655.

#### Features:

- High gloss crystal clear appearance with glass smooth interior to reduce sediment buildup
- Non-toxic blue tint to enhance clarity
- NSF-51 and NSF-61 certified material
- Self-extinguishing
- Compound hardness 73 ±3 Shore "A"

#### **Applications:**

- Tubing for laboratories
- Water distillation lines
- Deionized water systems
- Air conditioning drainage
- Refrigeration drainage
- Air lines
- Bottling plants
- Beverage dispensing units
- Ice making machines
- Printing press equipment
- High efficiency furnace drainage
- Transfer of weak chemicals and acids

**Service Temperature Range:** +25°F (-4°C) to 150°F (+65°C)

|      | •    | •    | •          |
|------|------|------|------------|
| Comp | lian | ce F | Footnotes: |

- **FDA** CFR Title 21 Parts 170 to 199.
- Wt. per (PSI) @70°F Pkg. Ctn/Coils (In) (mm) (ln) (mm) (ln) (mm) (20°C) K010 0204 1/8 3.2 1/4 6.4 1/16 1.6 65 100 ft. 2.0 lbs K010 0304 3/16 4.8 1/4 6.4 1/32 0.8 50 100 ft. 1.2 lbs K010 0305 3/16 4.8 5/16 7.9 55 100 ft. 2.7 lbs 1/16 1.6 K010 0306 3/16 4.8 3/8 9.5 3/32 2.4 60 100 ft. 4.5 lbs. 55 K010 0406 1/4 6.4 3/8 9.5 1/16 1.6 100 ft. 3.4 lbs. 58 K010 0407 1/4 6.4 7/16 3/32 2.4 100 ft. 5.5 lbs 11.1 K010 0408 1/4 6.4 1/2 12.7 1/8 3.2 60 100 ft. 8.0 lbs 7/16 50 K010 0507 5/16 7.9 11.1 1/16 1.6 100 ft. 4.0 lbs 3/32 55 100 ft. K010 0508 5/16 7.9 1/2 2.4 6.5 lbs 12.7 K010 0509 5/16 7.9 9/16 14.3 1/8 3.2 60 100 ft. 9.4 lbs K010 0608 3/8 9.5 1/2 12.7 1/16 1.6 45 100 ft. 4.7 lbs. 50 K010 0609 3/8 9.5 9/16 14.3 3/32 2.4 100 ft. 7.5 lbs 3/8 9.5 5/8 15.9 1/8 3.2 55 100 ft. K010 0610 10.7 lbs K010 0709 7/16 11.1 9/16 14.3 1/16 1.6 35 100 ft. 6.0 lbs. K010 0810 1/2 12.7 5/8 15.9 1/16 1.6 30 100 ft. 6.0 lbs. K010 3/32 40 100 ft. 0811 1/2 12.7 11/16 17.5 2.4 9.5 lbs 3.2 100 ft. K010 0812 1/2 12.7 3/4 19.1 1/8 45 13.4 lbs 25 5/8 3/4 1/16 K010 1012 15.9 19.1 1.6 100 ft. 8.2 lbs 5/8 13/16 20.6 3/32 35 100 ft. 11.6 lbs K010 1013 15.9 2.4 K010 15.9 22.2 1/8 3.2 40 100 ft. 1014 5/8 7/8 16.1 lbs K010 1216 3/4 19.1 25.4 1/8 3.2 35 100 ft. 18.8 lbs. 1 40 K010 1218 3/4 19.1 1 1/8 28.6 3/16 4.8 100 ft. 30.0 lbs. K010 1220 3/4 19.1 1 1/4 31.8 1/4 6.4 45 100 ft. 42.9 lbs 1/8 3.2 30 21.4 lbs. K010 1418 7/8 22.2 1 1/8 28.6 100 ft. K010 1420 7/8 22.2 1 1/4 31.8 3/16 4.8 35 100 ft. 34.1 lbs K010 1620 25.4 1 1/4 31.8 1/8 3.2 25 100 ft. 24.1 lbs K010 1622 25.4 1 3/8 34.9 3/16 4.8 30 100 ft. 38.2 lbs 1624 25.4 1 1/2 1/4 35 53.6 lbs K010 38.1 6.4 100 ft. K010 2024 1 1/4 31.8 1 1/2 38.1 1/8 3.2 20 50 ft. 14.8 lbs. K010 2026 1 1/4 31.8 1 5/8 41.3 3/16 4.8 30 50 ft. 23.1 lbs K010 2028 1 1/4 31.8 1 3/4 44.5 1/4 6.4 40 50 ft. 32.2 lbs K010 2430 1 1/2 38.1 1 7/8 47.6 3/16 4.8 30 50 ft. 27.1 lbs. 2432 1 1/2 1/4 35 K010 38.1 50.8 6.4 50 ft.
- Working Pressure decreases as temperature increases. Pressure ratings can only be obtained with proper coupling procedures. Use of compression fittings with Kuri Tec® non-reinforced PVC tubing is not recommended. Hose claims involving use of these fittings will be disallowed.

63.5

2 1/2

1/4

6.4

USDA — Chemically suitable for general use in slaughtering, processing, transporting, or storage areas in direct contact with meat or poultry food product prepared under Federal Inspection.

50.8

- 3A Complies with the criteria in 3-A Sanitary Standards for Multiple-use Plastic Materials used as Product Contact Surfaces for Dairy Equipment, Number 20-18 as amended.
- NSF Certified under Standard 51, Plastic materials and components used in food equipment. Compound is also certified under Standard NSF-61 for drinking water system components.
- **Proposition 65** Compounds contain no substances designated as hazardous under California Proposition 65.

K010

3240

# Kuri Tec<sup>®</sup>

# **Non-toxic PVC Air Breathing Hose**



A specially-designed non-toxic air breathing hose that provides low temperature flexibility and low odor.

#### **Construction:**

- Tube Clear PVC compound, formulated in compliance with FDA CFR Title 21 Parts 170 – 199 and with California Proposition 65¹
- Reinforcement High tensile strength yarn
- Cover Non-toxic, U. V. and weather resistant black PVC compound

#### Features:

- Good low temperature flexibility
- Low odor, compared with traditional rubber hose
- Heavy wall construction matches the dimensions of rubber hose

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- Light-wall version available (1/4" size)
- One-piece lengths

#### **Applications:**

- General Type C<sup>2</sup> air supply lines
- · Paint spray booths
- Indoor, in-plant air service
- Outdoor, open air service

**Service Temperature Range:** -15°F (-26°C) to 150°F (+65°C)

## Series A1243 — Non-toxic air breathing hose

| Series | Size | Nom<br>II |      | _    | ninal<br>)D | Max. W<br>Pressur |                | Standard<br>Length | Approx.<br>Wt. per |
|--------|------|-----------|------|------|-------------|-------------------|----------------|--------------------|--------------------|
| No.    | Code | (In)      | (mm) | (In) | (mm)        | @ 70°F (20°C)     | @ 122°F (50°C) |                    | Pkg.               |
| A1243H | 04   | 1/4       | 6.5  | .625 | 15.9        | 250               | 150            | 300 ft.            | 42 lbs.            |
| A1243  | 04   | 1/4       | 6.5  | .500 | 12.7        | 250               | 150            | 500 ft.            | 40 lbs.            |
| A1243H | 06   | 3/8       | 9.5  | .688 | 17.5        | 250               | 150            | 300 ft.            | 43 lbs.            |
| A1243  | 08   | 1/2       | 12.7 | .840 | 21.3        | 250               | 150            | 300 ft.            | 66 lbs.            |

† Note: Working Pressure decreases as temperature increases. Pressure ratings can only be obtained with proper coupling procedures.

#### **Compliance Notes:**

- 1. Proposition 65 Compound contains no substances designated as hazardous under California Proposition 65.
- 2. When properly coupled with suitable fittings, this hose will satisfy the air supply line requirements of Type C respirators, as described in 30 CFR Part 11 Subpart J, 11.124-7, including the gasoline permeation test.

This hose will satisfy the "off-gassing tests," as described in MIL-H-2815 F, Sections 3.12.2 and 4.5.10.

NOTE: NIOSH only certifies complete breathing respirators and does not issue certifications on individual components, such as hoses. All replacement hoses for NIOSH-certified apparatus must have prior NIOSH certification as a part of that unit.

# **Lightweight Polyurethane Pneumatic Air Tool Hose**

# Kuri Tec<sup>®</sup>



An extremely lightweight, tough, flexible pneumatic air tool hose that is suitable for a wide range of industrial and construction applications.

#### **Construction:**

- Tube Clear ether-based polyurethane
- Reinforcement High tensile strength yarn
- Cover Ether-based polyurethane, available in three colors: K5090 – turquoise tint, K5094 – red and K5096 – blue

#### Features:

- Very lightweight and flexible . . . helps to cut down on work-related injuries
- Good flex fatigue and resilience characteristics
- Excellent resistance to oils and solvents
- High oil resistance, complies with RMA's Class A Designation

- Superior cut-resistance
- High abrasion-resistance . . . provides extra long life compared with conventional PVC or rubber air hoses
- Good resistance to hydrolysis and algae in warm water applications
- Silicone-free core and cover
- Non-marking cover
- Non-conductive compounds
- One-piece lengths

#### **Applications:**

- For use with pneumatic air tools such as roofing nailers, sanders, chippers, impact wrenches, screwdrivers and staplers
- In-plant assembly line air service
- Automotive repair and body shops
- Construction sites
- Marine applications
- Air service for spray painting equipment

Service Temperature Range: -40°F (-40°C) to 185°F (+85°C)

## Series K5090/K5094/K5096 — Reinforced polyurethane pneumatic air tool hose

| Standard           | Stock Colors            | Size     | Nomi        | inal ID     | Nomi         | nal OD       |                 | n Working <sup>†</sup><br>ire (PSI) | Stand<br>Leng      |                    | Approx<br>per f    |                   |
|--------------------|-------------------------|----------|-------------|-------------|--------------|--------------|-----------------|-------------------------------------|--------------------|--------------------|--------------------|-------------------|
| K5090<br>Turquoise | K5094 Red<br>K5096 Blue | Code     | (In)        | (mm)        | (In)         | (mm)         | @70°F<br>(20°C) | @122°F<br>(50°C)                    | Reel               | Coil/Box           | 500 ft.            | 100 ft.           |
| ~                  | \ \ \ \ \               | 04<br>05 | 1/4<br>5/16 | 6.5<br>8.0  | .395<br>.472 | 10.0<br>12.0 | 250<br>250      | 200<br>200                          | 500 ft.<br>500 ft. | 100 ft.<br>100 ft. | 27 lbs.<br>32 lbs. | 4 lbs.<br>5 lbs.  |
| ~                  | ~                       | 06<br>08 | 3/8<br>1/2  | 9.5<br>12.5 | .560<br>.688 | 14.2<br>17.5 | 250<br>250      | 200<br>200                          | 500 ft.<br>500 ft. | 100 ft.<br>100 ft. | 47 lbs.<br>57 lbs. | 8 lbs.<br>10 lbs. |

#### Series HS5090/HS5094/HS5096 —

## Reinforced polyurethane pneumatic air tool hose assemblies

| Standard | Stock Colors              | Size | Nomi       | inal ID    | Nomi         | nal OD       |                 | n Working <sup>†</sup><br>ıre (PSI) | Assembled                      |                    | pprox. V<br>per Pkg |                  |
|----------|---------------------------|------|------------|------------|--------------|--------------|-----------------|-------------------------------------|--------------------------------|--------------------|---------------------|------------------|
|          | HS5094 Red<br>HS5096 Blue | Code | (In)       | (mm)       | (In)         | (mm)         | @70°F<br>(20°C) | @122°F<br>(50°C)                    | Lengths                        | 25 ft.             | 50 ft.              | 100 ft.          |
| <b>V</b> | <i>y y</i>                |      | 1/4<br>3/8 | 6.5<br>9.5 | .395<br>.560 | 10.0<br>14.2 | 250<br>250      | 200<br>200                          | 25/50/100 ft.<br>25/50/100 ft. | 1 lbs.<br>1.5 lbs. | 2 lbs.<br>3 lbs.    | 4 lbs.<br>6 lbs. |

<sup>†</sup> Note: Working Pressure decreases as temperature increases. Pressure ratings can only be obtained with proper coupling procedures.

BECAUSE WE CONTINUALLY EXAMINE WAYS TO IMPROVE OUR PRODUCTS, WE RESERVE THE RIGHT TO ALTER SPECIFICATIONS OR DISCONTINUE PRODUCTS WITHOUT PRIOR NOTICE.

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# Special Purpose PVC/Polyurethane Alloy Air Hose



#### Construction:

- Tube Grey PVC/polyurethane alloy
- Reinforcement High tensile strength yarn
- Cover PVC/polyurethane alloy, available in five colors: A1141 – yellow, A1144 — red, A1146 — blue, A1147 — green and A1148 – grey

#### Features:

- Grey core tube has excellent cut resistance . . . complies with RMA's Class A designation for high oil resistance
- Highly abrasion-resistant alloy jacket
- Smooth, non-marking pin-pricked cover
- Good flexibility over a wide temperature range
- Good fitting retention at elevated temperatures
- Silicone-free
- One-piece lengths

### **Applications:**

- Transfer of air and water
- Ideal for applications in rugged or higher temperature environments
- Induction welding tubing lines
- Injection molding coolant lines
- Transfer of deionized water
- Transfer of transmission and power steering fluids
- Lubrication/air drop lines
- Robotic and pneumatic air lines
- Automotive assembly line air hoses

Note: Not recommended for transfer of brake fluids.

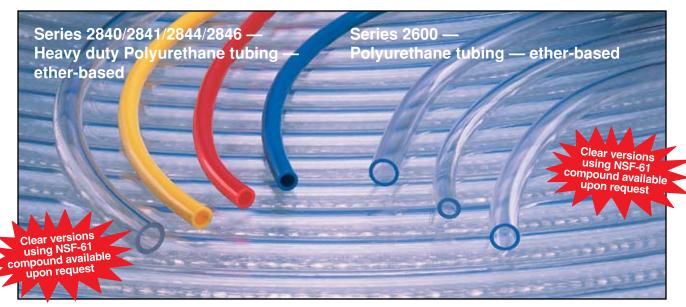
Service Temperature Range: 0°F (-18°C) to +185°F (+85°C)

# Series A1141/A1144/A1146/A1147/A1148 — Special purpose PVC/polyurethane alloy air hose

| St          | andard Stock Co                          | lors        | a:                               | Nomir                                   | nal ID                                    | Nomi  | nal OD                                       | Maximum<br>Pressui                     |   | Standard   | Approx.  |
|-------------|--|-------------|----------------------------------|---|---|---|--|--|---|--|--|
| A1144 Red   | A1141 Yellow<br>A1146 Blue<br>A1148 Grey | A1147 Green | Size<br>Code                     | (In)                                    | (mm)                                      | (In)  | (mm)   | @70°F<br>(20°C)                        | @122°F<br>(50°C)                              | Length<br>Reels  | Weight<br>per<br>Pkg.  |
| *********** | > >> >                                   | V           | 04<br>05<br>06<br>08<br>10<br>12 | 1/4<br>5/16<br>3/8<br>1/2<br>5/8<br>3/4 | 6.5<br>8.0<br>9.5<br>12.7<br>15.9<br>19.0 | .460<br>.520<br>.625<br>.770<br>.969<br>1.060 | 11.7<br>13.2<br>15.9<br>19.6<br>24.6<br>26.9 | 300<br>300<br>300<br>300<br>300<br>300 | 200<br>200<br>200<br>200<br>200<br>175<br>150 | 500 ft.<br>500 ft.<br>500 ft.<br>500 ft.<br>300 ft.<br>300 ft. | 37 lbs.<br>44 lbs.<br>67 lbs.<br>88 lbs.<br>76 lbs.<br>79 lbs. |

<sup>†</sup> Note: Working Pressure decreases as temperature increases. Pressure ratings can only be obtained with proper coupling procedures.

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#### Construction:

Series 2840/2841/2844/2846 — 95 Shore "A" Durometer ether-based polyurethane tubing in transparent blue tint, as well as three standard solid colors: 2840 – blue tint, 2841 – yellow, 2844 – red, 2846 – blue

Series 2600 — 85 Shore "A" Durometer ether-based polyurethane tubing with transparent blue tint. ★The following colors are available on special order: 2601 – yellow, 2604 – red, 2606 – blue

#### Features:

- Abrasion and cut resistance
- Good flex fatigue and resilience characteristics
- Excellent resistance to ozone, solvents and fuel
- Good resistance to hydrolysis and algae
- Slight blue tint allows see-through convenience
- \*Blue tint 2600 material conforms to FDA CFR 21-177-2600
- Complies with RMA's Class A designation for high oil resistance
- Silicone-free
- One-piece lengths

#### **Applications:**

- Transfer of air and fluids under severe conditions
- Feed and return lines
- Insulating sleeves
- Abrasive slurry transfer
- Lubrication lines
- Granular transfer lines
- Metering pumps
- Robotics control lines

**Note:** When exceptional oil and fuel resistance is needed, we suggest use of Series 2810 ester-based tubing — call for details.

Note: Not recommended for transfer of brake fluids

Service Temperature Range: -40°F (-40°C) to 175°F (+80°C)

# Series 2840/2841/2844/2846 — Ether-based polyurethane tubing — heavy duty construction

|               | Serie    | s No.    |              | Size     | Nomi        | nal ID     | Nomin        | al OD        | Max. Working <sup>†</sup><br>Pressure (PSI) |                   | Standard           | Lengths            | Approx. Wt.<br>per Pkg. |            |
|---------------|----------|----------|--------------|----------|-------------|------------|--------------|--------------|---|-------------------|--------------------|--------------------|-------------------------|------------|
| 2840<br>Clear |          |          | 2846<br>Blue |          | (In)        | (mm)       | (In)         | (mm)         | @ 70°F<br>(20°C)                            | @ 122°F<br>(50°C) | Spool/Box          | Coil/Box           | 300 ft.                 | 100 ft.    |
| ~             | <b>/</b> | ~        | ~            | 04       | 1/4         | 6.5        | .375         | 9.5          | 125   | 75                | 300 ft.            | 100 ft.            | 9.5                     | 3.1        |
|               | <b>V</b> | <b>V</b> | 1            | 05<br>06 | 5/16<br>3/8 | 8.0<br>9.5 | .472<br>.570 | 12.0<br>14.5 | 125<br>125                                  | 75<br>75          | 300 ft.<br>300 ft. | 100 ft.<br>100 ft. | 14.7<br>21.7            | 4.9<br>7.2 |

# Series 2600 — Ether-based polyurethane tubing — transparent blue tint

| Series | Code |      | -    |      | ninal<br>D | Nominal<br>Wall |      |               | lorking <sup>†</sup><br>re (PSI) | Standard<br>Length | Approx.<br>Wt. per |
|--------|------|------|------|------|------------|-----------------|------|---------------|----------------------------------|--------------------|--------------------|
| No.    | Code | (In) | (mm) | (In) | (mm)       | (In)            | (mm) | @ 70°F (20°C) | @ 122°F (50°C)                   |                    | Pkg.               |
| 2600   | 0204 | 1/8  | 3.2  | 1/4  | 6.4        | 1/16            | 1.6  | 100           | 75                               | 100 ft.            | 2 lbs.             |
| 2600   | 0305 | 3/16 | 4.8  | 5/16 | 7.9        | 1/16            | 1.6  | 75            | 50                               | 100 ft.            | 3 lbs.             |
| 2600   | 0406 | 1/4  | 6.4  | 3/8  | 9.5        | 1/16            | 1.6  | 60            | 45                               | 100 ft.            | 3.5 lbs.           |
| 2600   | 0507 | 5/16 | 7.9  | 7/16 | 11.1       | 1/16            | 1.6  | 50            | 35                               | 100 ft.            | 4 lbs.             |
| 2600   | 0608 | 3/8  | 9.5  | 1/2  | 12.7       | 1/16            | 1.6  | 45            | 30                               | 100 ft.            | 5 lbs.             |
| 2600   | 0812 | 1/2  | 12.7 | 3/4  | 19.1       | 1/8             | 3.2  | 60            | 45                               | 100 ft.            | 13 lbs.            |

<sup>†</sup> Note: Working Pressure decreases as temperature increases. Pressure ratings can only be obtained with proper coupling procedures.

# Polyurethane Self-Store Tubing & Reinforced Hose



#### Features:

- Offers strength with flexibility, highly kink-resistant
- Light weight (up to 15% lighter than our previous design), easy to use — helps to reduce worker fatigue
- Highly abrasion-resistant and non-marking
- Superior oil resistance complies with RMA's Class A designation for high oil resistance
- Reinforcement high tensile strength yarn reinforcement provides increased working pressure (HSC2950 only)
- Standard tubing/hose assemblies have 4" pigtail and 20" whip end
- Permanent crimped male swivel brass fittings provide

greater strength and pull-out resistance . . . heat shrink tubing over fittings prevents scratches and scuffs

- Good resistance to hydrolysis and algae growth in warm water applications
- Silicone-free

#### **Applications:**

- Assembly line air tools and work stations
- Automotive repair and body shops
- Transfer of air, fluids and chemicals
- Transparent blue tint (HSC2840) allows monitoring of flow
- Car wash soap dispensers

Note: Not recommended for transfer of brake fluids

**Service Temperature Range:** -40°F (-40°C) to 175°F (+80°C)

# HSC2840, HSC2841, HSC2844, HSC2846 — Polyurethane self-store coiled tubing, coupled HSC2950 — Polyurethane reinforced hose, coupled

| Series No.<br>HSC2840<br>HSC2841 | Size<br>Code<br>X | Nom<br>I | inal<br>D | _    | ninal<br>ID |                 | Working <sup>†</sup><br>re (PSI) | Working<br>Length | Coil<br>OD | Standard | Approx.<br>Wt.<br>per |
|----------------------------------|-------------------|----------|-----------|------|-------------|-----------------|----------------------------------|-------------------|------------|----------|-----------------------|
| HSC2844<br>HSC2846               | Length            | (In)     | (mm)      | (In) | (mm)        | @70°F<br>(20°C) | @122°F<br>(50°C)                 | (ft.)             | (In)       | Package  | Pkg.                  |
| <b>✓</b>                         | 04 x 10           | 1/4      | 6.5       | .375 | 9.5         | 125             | 75                               | 8                 | 2          | 10       | 5 lbs.                |
| <b>✓</b>                         | 04 x 15           | 1/4      | 6.5       | .375 | 9.5         | 125             | 75                               | 12                | 2          | 10       | 6.5 lbs.              |
| <b>✓</b>                         | 04 x 20           | 1/4      | 6.5       | .375 | 9.5         | 125             | 75                               | 16                | 2          | 10       | 8.5 lbs.              |
| <b>✓</b>                         | 04 x 25           | 1/4      | 6.5       | .375 | 9.5         | 125             | 75                               | 20                | 2          | 10       | 10 lbs.               |
| <b>✓</b>                         | 04 x 30           | 1/4      | 6.5       | .375 | 9.5         | 125             | 75                               | 24                | 2          | 10       | 12 lbs.               |
| <b>✓</b>                         | 04 x 50           | 1/4      | 6.5       | .375 | 9.5         | 125             | 75                               | 40                | 2          | 1        | 2 lbs.                |
| <b>✓</b>                         | 06 x 10           | 3/8      | 9.5       | .570 | 14.5        | 125             | 75                               | 8                 | 3          | 5        | 5 lbs.                |
| <b>✓</b>                         | 06 x 15           | 3/8      | 9.5       | .570 | 14.5        | 125             | 75                               | 12                | 3          | 5        | 7 lbs.                |
| <b>✓</b>                         | 06 x 20           | 3/8      | 9.5       | .570 | 14.5        | 125             | 75                               | 16                | 3          | 5        | 9 lbs.                |
| <b>✓</b>                         | 06 x 25           | 3/8      | 9.5       | .570 | 14.5        | 125             | 75                               | 20                | 3          | 5        | 11 lbs.               |
| <b>✓</b>                         | 06 x 30           | 3/8      | 9.5       | .570 | 14.5        | 125             | 75                               | 24                | 3          | 5        | 12 lbs.               |
| <b>✓</b>                         | 06 x 50           | 3/8      | 9.5       | .570 | 14.5        | 125             | 75                               | 40                | 3          | 1        | 4 lbs.                |
| HSC2950                          |                   |          |           |      |             |                 |                                  |                   |            |          |                       |
| <b>✓</b>                         | 04 x 15           | 1/4      | 6.5       | .395 | 9.5         | 225             | 125                              | 12                | 2          | 10       | 6.5 lbs.              |
| <b>✓</b>                         | 04 x 25           | 1/4      | 6.5       | .395 | 9.5         | 225             | 125                              | 20                | 2<br>2     | 10       | 10 lbs.               |
| <b>✓</b>                         | 04 x 50           | 1/4      | 6.5       | .395 | 9.5         | 225             | 125                              | 40                | 2          | 1        | 2 lbs.                |
| <b>✓</b>                         | 06 x 15           | 3/8      | 9.5       | .570 | 14.5        | 225             | 125                              | 12                | 3          | 5        | 7 lbs.                |
| <b>✓</b>                         | 06 x 25           | 3/8      | 9.5       | .570 | 14.5        | 225             | 125                              | 20                | 3          | 5        | 11 lbs.               |
| <b>✓</b>                         | 06 x 50           | 3/8      | 9.5       | .570 | 14.5        | 225             | 125                              | 40                | 3          | 1        | 4 lbs.                |

Note: Each length of assembled tubing or hose includes a 4" pigtail and a 20" whip end, assembled to 1/4" or optional 3/8" (priced upon request) male NPT permanent crimped swivel brass fittings. Working length is 80% of nominal length shown. 5/16" & 1/2" ID size tubing is priced upon request. Check for availability.

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<sup>†</sup> Warning: Working pressure rating decreases as operating temperature increases. Exceeding the rated limit may cause the tubing to rupture.

BECAUSE WE CONTINUALLY EXAMINE WAYS TO IMPROVE OUR PRODUCTS, WE RESERVE THE RIGHT TO ALTER SPECIFICATIONS OR DISCONTINUE PRODUCTS WITHOUT PRIOR NOTICE.



Our high quality flexible PVC compounds are uniquely blended to make this hose look and feel like comparable rubber hose and stay flexible at low temperatures. Its light weight makes it an ideal hose for air tool applications.

#### Construction:

- Tube Black PVC compound
- Reinforcement Spiral polyester yarn with additional longitudinal yarns . . . reduces elongation under pressure
- Cover PVC compound in a variety of colors

#### Features:

- U. V. and weather resistant
- Excellent cold weather flexibility
- Easily re-coiled after use

- Medium/high oil resistance, complies with RMA's Class B Designation
- Non-marking pin-pricked cover
- Lightweight
- One-piece lengths
- Chemical resistance of PVC
- Silicone-free core and cover

#### Applications:

- Ideal for in-plant applications requiring color coding of hose supply lines
- Transfer of air, water and mild water-soluble chemicals
- Outdoor applications requiring a low temperature hose
- General air supply line for pneumatic tools and paint spray systems.
- Low pressure spray hose for water-soluble chemicals

Service Temperature Range: -15°F (-26°C) to 150°F (65°C)

### Series K1131/K1134/K1136/K1137/K1138 — Multi-purpose air & water hose

| Star      | idard Stock Co           | olors       |      | Nomi | nalID | Nomir | al OD |                 | Vorking <sup>†</sup><br>re (PSI) | Stan<br>Len |         | Appı<br>Wei | ght     |
|-----------|--------------------------|-------------|------|------|-------|-------|-------|-----------------|----------------------------------|-------------|---------|-------------|---------|
|           | K1131 Yellow             |             | Size |      |       |       |       | 110334          | 10 (1 01)                        | Long        | guio    | per Pkg.    |         |
| K1134 Red | K1136 Blue<br>K1138 Grey | K1137 Green | Code | (ln) | (mm)  | (In)  | (mm)  | @70°F<br>(20°C) | @122°F<br>(50°C)                 | Reel        | Coil    | Reel        | Coil    |
| ~         | <b>/</b>                 |             | 04   | 1/4  | 6.5   | .500  | 12.7  | 300             | 180                              | 500 ft.     | 100 ft. | 44 lbs.     | 8 lbs.  |
| <b>/</b>  |                          |             | 05   | 5/16 | 8.0   | .625  | 15.9  | 300             | 180                              | 500 ft.     | 100 ft. | 67 lbs.     | 13 lbs. |
| <b>/</b>  | ~                        | ~           | 06   | 3/8  | 9.5   | .625  | 15.9  | 300             | 180                              | 500 ft.     | 100 ft. | 58 lbs.     | 11 lbs. |
| <b>/</b>  | ~                        |             | 08   | 1/2  | 12.7  | .813  | 20.7  | 300             | 180                              | 500 ft.     | 100 ft. | 93 lbs.     | 18 lbs. |
| <b>/</b>  |                          |             | 10   | 5/8  | 15.9  | .906  | 23.0  | 250             | 125                              | 300 ft.     | 100 ft. | 64 lbs.     | 19 lbs. |
| <b>/</b>  | ~                        |             | 12   | 3/4  | 19.0  | 1.125 | 28.6  | 250             | 100                              | 300 ft.     | 100 ft. | 96 lbs.     | 30 lbs. |
| <b>/</b>  | ~                        |             | 16   | 1    | 25.4  | 1.406 | 35.7  | 250             | 100                              | 300 ft.     | 100 ft. | 130 lbs.    | 41 lbs. |

Note: 100 ft. lengths not available at all locations. Please check with your local warehouse for availability. ✓ indicates stock item.

† Note: Working Pressure decreases as temperature increases. Pressure ratings can only be obtained with proper coupling procedures.



#### **Construction:**

#### Series K1154/K1156

- Tube Black PVC compound
- Reinforcement High tensile strength yarn
- Cover PVC compound, available in two colors: K1154 red & K1156 blue

#### Features:

- Economical, flexible and lightweight . . . all sizes are within UPS weight limits for significant freight savings
- Excellent abrasion resistance
- U. V. and weather resistant
- Non-marking pin-pricked cover
- Silicone-free core and cover
- Complies with RMA's Class B designation for medium/ high oil resistance
- One piece packaging, no random lengths

#### **Applications:**

- Transfer of air, water and mild water soluble chemicals
- Ideal for in-plant applications that require an economical general purpose hose
- Excellent air supply line for pneumatic tools and paint spray systems

Service Temperature Range: +14°F (-10°C) to 150°F (+65°C)

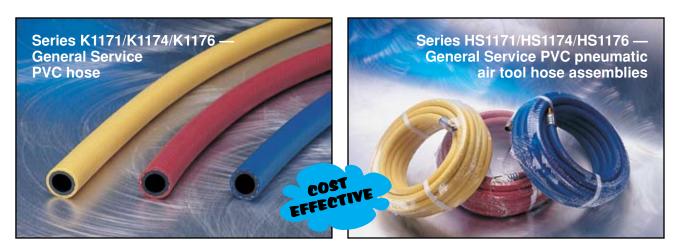
### Series K1154/K1156 — General purpose PVC hose

|              | es No.        | Size | Nomir | nal ID | Nomin | al OD |                 | Vorking†<br>re (PSI) |         | idard<br>igth | Appro<br>per l |         |
|--------------|---------------|------|-------|--------|-------|-------|-----------------|----------------------|---------|---------------|----------------|---------|
| K1154<br>Red | K1156<br>Blue | Code | (In)  | (mm)   | (In)  | (mm)  | @70°F<br>(20°C) | @122°F<br>(50°C)     | Reel    | Coil          | Reel           | Coil    |
| <b>~</b>     | <b>/</b>      | 04   | 1/4   | 6.4    | .500  | 12.7  | 300             | 150                  | 500 ft. | 100 ft.       | 44 lbs.        | 8 lbs.  |
| <b>/</b>     | <b>/</b>      | 05   | 5/16  | 7.9    | .625  | 15.9  | 300             | 150                  | 500 ft. | 100 ft.       | 68 lbs.        | 13 lbs. |
| <b>/</b>     | <b>/</b>      | 06   | 3/8   | 9.5    | .625  | 15.9  | 300             | 150                  | 500 ft. | 100 ft.       | 56 lbs.        | 11 lbs. |
| <b>/</b>     | <b>/</b>      | 08   | 1/2   | 12.7   | .750  | 19.1  | 300             | 150                  | 500 ft. | 100 ft.       | 77 lbs.        | 14 lbs. |
| <b>/</b>     | <b>/</b>      | 10   | 5/8   | 15.9   | .895  | 22.6  | 200             | 100                  | 300 ft. | 100 ft.       | 60 lbs.        | 18 lbs. |
| <b>/</b>     | <b>/</b>      | 12   | 3/4   | 19.1   | 1.030 | 26.2  | 200             | 75                   | 300 ft. | 100 ft.       | 72 lbs.        | 22 lbs. |
| <b>V</b>     | <b>/</b>      | 16   | 1     | 25.4   | 1.313 | 33.3  | 150             | 75                   | 300 ft. | 100 ft.       | 105 lbs.       | 31 lbs. |

<sup>†</sup> Note: Working Pressure decreases as temperature increases. Pressure ratings can only be obtained with proper coupling procedures.

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#### Construction:

- Tube Black PVC compound
- Reinforcement High tensile strength yarn
- Cover PVC compound, available in three colors: K1171 – yellow, K1174 – red, K1176 – blue

#### Features:

- Economical, lightweight, low temperature alternative to rubber hose.
- Excellent abrasion resistance
- 300 PSI working pressure on all sizes
- U. V. and weather resistant
- Non-marking pin-pricked cover

- Complies with RMA's Class B designation for medium/ high oil resistance
- One piece packaging, no random lengths
- Formulated for low temperature flexibility
- Assemblies (Series HS1171/HS1174/HS1176) are individually shrink-wrapped

#### **Applications:**

- Transfer of air, water and mild water soluble chemicals
- Ideal for in-plant and outdoor applications that require an economical general purpose hose
- Excellent air supply line for pneumatic tools and paint spray systems

Service Temperature Range: -15°F (-26°C) to 150°F (+65°C)

#### Series K1171/K1174/K1176 — General Service PVC hose

|                 | Standard Stock C |               | Size | Nomi | nal ID | Nomin | al OD |                  | Vorking <sup>†</sup><br>re (PSI) | Standard<br>Length | Approx.<br>Wt. per |
|-----------------|------------------|---------------|------|------|--------|-------|-------|------------------|----------------------------------|--------------------|--------------------|
| K1171<br>Yellow | K1174<br>Red     | K1176<br>Blue | Code | (In) | (mm)   | (In)  | (mm)  | @ 70°F<br>(20°C) | @ 122°F<br>(50°C)                | Coils              | Pkg.               |
| <b>V</b>        | ~                | ~             | 04   | 1/4  | 6.5    | .475  | 12.1  | 300              | 150                              | 500 ft.            | 36 lbs.            |
| <b>'</b>        | <b>✓</b>         | <b>/</b>      | 06   | 3/8  | 9.5    | .600  | 15.2  | 300              | 150                              | 500 ft.            | 48 lbs.            |
| <b>'</b>        | <b>✓</b>         | <b>/</b>      | 80   | 1/2  | 12.7   | .750  | 19.1  | 300              | 150                              | 300 ft.            | 42 lbs.            |
|                 | <b>/</b>         |               | 10   | 5/8  | 15.9   | .860  | 21.8  | 250              | 125                              | 300 ft.            | 46 lbs.            |

### Series HS1171/HS1174/HS1176 — General Service PVC pneumatic air tool hose assemblies

| Stand            | ard Stock | Colors         | Size | Nomi | inal ID | Nomi | nal OD |                 | n Working <sup>†</sup><br>Ire (PSI) | Assembled     |          | pprox. W<br>per Pkg |           |
|------------------|-----------|----------------|------|------|---------|------|--------|-----------------|-------------------------------------|---------------|----------|---------------------|-----------|
| HS1171<br>Yellow |           | HS1176<br>Blue | Code | (In) | (mm)    | (In) | (mm)   | @70°F<br>(20°C) | @122°F<br>(50°C)                    | Lengths       | 25 ft.   | 50 ft.              | 100 ft.   |
| ~                | ~         | ~              | 04   | 1/4  | 6.5     | .475 | 12.1   | 300             | 150                                 | 25/50/100 ft. | 1.9 lbs. | 3.7 lbs.            | 7.4 lbs.  |
| <b>/</b>         | <b>/</b>  | <b>/</b>       | 06   | 3/8  | 9.5     | .600 | 15.2   | 300             | 150                                 | 25/50/100 ft. | 2.6 lbs. | 5.1 lbs.            | 10.2 lbs. |
| <b>'</b>         | <b>/</b>  | <b>/</b>       | 08   | 1/2  | 12.7    | .750 | 19.1   | 300             | 150                                 | 25/50/100 ft. | 3.5 lbs. | 7.0 lbs.            | 14.0 lbs. |

**Note:** Hose assemblies are furnished with the following fittings: 1/4" ID - 1/4" X 1/4"M NPT, 3/8" ID - 3/8" X 1/4"M NPT, 1/2" ID - 1/2" X 3/8"M NPT. † **Note:** Working Pressure decreases as temperature increases. Pressure ratings can only be obtained with proper coupling procedures.

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# **Reinforced PVC Water Hose**



An all-purpose PVC hose for light duty industrial watering applications.

#### Construction:

- Tube Smooth black PVC compound
- Reinforcement High tensile strength yarn
- Cover Smooth opaque green PVC compound

#### Features:

- Economical
- Lightweight and easy to handle
- Good resistance to weather aging, ozone and ultraviolet light
- Available in assemblies on special order
- Silicone-free
- · One-piece lengths

#### Applications:

- · Light duty industrial watering
- Lawn and garden watering
- Nursery water supply lines
- Light duty commercial washdown

An all-purpose heavy duty PVC hose that's ideal for golf courses, parks and construction projects.

#### Construction:

- Tube Smooth black PVC compound
- Reinforcement High tensile strength yarn
- Cover Smooth transparent green PVC compound

#### Features:

- Higher working and burst pressures
- Abrasion-resistant cover
- Good resistance to weather aging
- Available in assemblies on special order
- Silicone-free
- One-piece lengths

#### **Applications:**

- Golf course water lines
- Heavy duty commercial and construction use
- Municipal maintenance and park departments
- Irrigation supply lines
- Heavy duty washdown

**Service Temperature Range:** +25°F (-4°C) to 150°F (+65°C)

### Series A1307 — Standard duty reinforced PVC water hose — solid green cover

|          |      |      |        | •          |      |               |                      |                          |                         |  |  |
|----------|------|------|--------|------------|------|---------------|----------------------|--------------------------|-------------------------|--|--|
| No. Code | Size | Nomi | nal ID | Nominal OD |      |               | Vorking†<br>re (PSI) | Standard<br>Length Coils | Approx. Wt.<br>per Pkg. |  |  |
|          | Code | (In) | (mm)   | (In)       | (mm) | @ 70°F (20°C) | @ 122°F (50°C)       |                          | <b>p</b> g.             |  |  |
| A1307    | 08   | 1/2  | 12.7   | .692       | 17.6 | 125           | 50                   | 300 ft.                  | 34 lbs.                 |  |  |
| A1307    | 10   | 5/8  | 15.9   | .817       | 20.8 | 125           | 50                   | 300 ft.                  | 40 lbs.                 |  |  |
| A1307    | 12   | 3/4  | 19.1   | .972       | 24.7 | 100           | 40                   | 300 ft.                  | 53 lbs.                 |  |  |
| A1307    | 16   | 1    | 25.4   | 1.297      | 32.9 | 100           | 40                   | 200 ft./300 ft.          | 69 lbs./104 lbs.        |  |  |

## Series A1317 — Heavy duty reinforced PVC water hose — green tint cover

|  | Series<br>No.  | Size     | odo      |              | Nominal OD     |              |               | Vorking†<br>re (PSI) | Standard<br>Length Coils   | Approx. Wt.<br>per Pkg.    |
|--|----------------|----------|----------|--------------|----------------|--------------|---------------|----------------------|----------------------------|----------------------------|
|  |                | Code     | (In)     | (mm)         | (In)           | (mm)         | @ 70°F (20°C) | @ 122°F (50°C)       |                            | , ,                        |
|  | A1317<br>A1317 | 12<br>16 | 3/4<br>1 | 19.1<br>25.4 | 1.025<br>1.297 | 26.0<br>32.9 | 125<br>125    | 50<br>50             | 300 ft.<br>200 ft./300 ft. | 65 lbs.<br>60 lbs./90 lbs. |

<sup>†</sup> Note: Working Pressure decreases as temperature increases. Pressure ratings can only be obtained with proper coupling procedures.

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Lightweight polyethylene-lined rubber blend hoses that are the ideal choice for handling paint and paint-related products in a variety of applications.

#### Construction:

#### Series A4143

- Tube Co-extruded blue LLDPE/rubber blend
- Reinforcement High tensile strength yarn
- Cover Black rubber blend compound; Branded "Paint Fluid"

#### Series A4143S

- Tube Co-extruded blue LLDPE/rubber blend
- Static wire Embedded copper wire for static conductivity (see note below)‡
- Reinforcement High tensile strength yarn
- Cover Black rubber blend compound with green identification stripe; Branded "Conductive Paint Fluid"

#### Features:

- Excellent resistance to paint fluids, lacquers and solvents
   . . . see chemical resistance chart, referring to both core and cover materials, on Page 33
- Excellent flexibility
- Lightweight
- Silicone-free
- One-piece lengths
- Compatible with popular spray fittings, such as Binks and DeVilbiss
- Excellent cold weather properties
- Static conductivity (Series A4143S only)

#### **Applications:**

- Lower pressure transfer of enamels, lacquers and other finishes
- Robotic paint spraying equipment
- Manual paint spraying
- Spraying of automobile "rustproofing" fluids
- Low temperature transfer of chemicals

Service Temperature Range: -40°F (-40°C) to +125°F (+52°C)

**CAUTION:** NOT FOR USE WITH HOT PAINT. DO NOT EXCEED TEMPERATURE OF 125°F (+52°C). **WARNING:** IMMERSION OF THE HOSE IN SOLVENTS FOR AN EXTENDED PERIOD OF TIME IS NOT RECOMMENDED DUE TO POTENTIAL SWELLING OF THE HOSE JACKET.

#### Series A4143/A4143S — Paint fluid transfer hose

| Sei   | ries   | Size | Nomi | nal ID | Nomin | al OD |                 | Vorking†<br>re (PSI) |         | ndard<br>ngth |         | x. Wt.<br>Pkg. |
|-------|--------|------|------|--------|-------|-------|-----------------|----------------------|---------|---------------|---------|----------------|
| N     | 0.     | Code | (In) | (mm)   | (In)  | (mm)  | @70°F<br>(20°C) | @122°F<br>(50°C)     | Reel    | Coil          | Reel    | Coil           |
| A4143 | A4143S | 04   | 1/4  | 6.5    | .500  | 12.7  | 175             | 85                   | 500 ft. | 100 ft.       | 36 lbs. | 7 lbs.         |
| A4143 | A4143S | 06   | 3/8  | 9.5    | .690  | 17.3  | 175             | 85                   | 500 ft. | 100 ft.       | 60 lbs. | 12 lbs.        |
| A4143 | A4143S | 08   | 1/2  | 12.7   | .875  | 22.2  | 175             | 85                   | 500 ft. | 100 ft.       | 93 lbs. | 18 lbs.        |
| A4143 | A4143S | 12   | 3/4  | 19.0   | 1.188 | 30.2  | 150             | 75                   | _       | 300/100 ft.   | _       | 85/28 lbs.     |
| A4143 | A4143S | 16   | 1    | 25.4   | 1.500 | 38.1  | 125             | 60                   | _       | 200/100 ft.   | _       | 86/43 lbs.     |

<sup>†</sup> Note: Working Pressure decreases as temperature increases. Pressure ratings can only be obtained with proper coupling procedures. Compatible with popular spray fittings, such as Binks and DeVilbiss.

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**<sup>‡</sup> Caution:** This product is designed to dissipate static electricity when the metal wire is properly grounded through the fitting or by other means.

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# High Pressure Polyethylene/ **Kuri Tec** Rubber Blend Spray and Transfer Hose



A premium chemical spray and transfer hose for applications requiring greater chemical-resistance . . . excellent for high pressure tree and orchard spraying, as well as paint, solvent and chemical transfer.

#### Construction:

- Tube Co-extruded blue LLDPE/rubber blend
- Reinforcement High tensile strength yarn . . . two-pass spiral construction
- Cover Blue rubber blend compound

#### Features:

- Excellent chemical-resistance
- Extremely light weight
- Excellent low temperature properties
- Pin-pricked cover vents vapor . . . helps prevent ballooning
- Silicone-free

#### **Applications:**

- For use in applications where additional chemical resistance is required . . . see chemical resistance chart, referring to both core and cover materials, on Page 33
- High pressure tree, orchard and vineyard spraying
- Concrete curing and spraying
- Paint and solvent transfer
- Chemical transfer



Service Temperature Range: -40°F (-40°C) to 130°F (+54°C)

# Series A4086 — High pressure 2-pass spiral construction polyethylene-lined rubber blend chemical spray & transfer hose

| . , ,  |      |           |      |       |            |               |                      |                    |                    |
|--------|------|-----------|------|-------|------------|---------------|----------------------|--------------------|--------------------|
| Series | Size | Nom<br>II |      | _     | iinal<br>D |               | Vorking†<br>re (PSI) | Standard<br>Length | Approx.<br>Wt. per |
| No.    | Code | (In)      | (mm) | (In)  | (mm)       | @ 70°F (20°C) | @ 122°F (20°C)       | Coils              | Pkg.               |
| A4086  | 06   | 3/8       | 9.5  | .688  | 17.5       | 800           | 300                  | 300/100 ft.        | 33/11 lbs.         |
| A4086  | 08   | 1/2       | 12.7 | .840  | 21.3       | 800           | 300                  | 300/100 ft.        | 45/15 lbs.         |
| A4086  | 10   | 5/8       | 15.9 | 1.000 | 25.4       | 800           | 250                  | 300/100 ft.        | 60/20 lbs.         |
| A4086  | 12   | 3/4       | 19.1 | 1.140 | 29.0       | 800           | 250                  | 300/100 ft.        | 72/24 lbs.         |
| A4086  | 16   | 1         | 25.4 | 1.400 | 35.6       | 400           | 125                  | 200/100 ft.        | 65/33 lbs.         |

† Note: Working Pressure decreases as temperature increases. Pressure ratings can only be obtained with proper coupling procedures.

**Note:** Use of hydraulic or reusable-type fittings are not recommended for coupling Kuri Tec® hose products. Hose claims involving use of these fittings will be disallowed.

# 300/600/800 PSI PVC/Polyurethane Blend Reinforced Spray Hoses

# Kuri Tec<sup>®</sup>



Unique PVC/polyurethane blended core provides excellent resistance to hydrocarbon-based lawn care and pest control chemicals. Reinforced with high tensile strength yarn. PVC ribbed cover provides abrasion resistance.

#### Construction:

- Tube Black PVC/polyurethane blend
- Reinforcement High tensile strength yarn
- Cover Ribbed PVC

#### Features:

- Extremely tough and kink resistant
- PVC/polyurethane blended core provides better chemical resistance than comparable all-PVC hoses
- Ribbed cover provides excellent abrasion-resistance

- Choice of 300, 600, or 800 PSI working pressures
- Pin-pricked cover vents vapor . . . helps prevent ballooning
- Silicone-free
- One-piece lengths

#### **Applications:**

- · Agricultural spraying
- Commercial weed spraying
- Pest control spraying (Series A1628 & A1661)
- Tree spraying (Series A1687 only)

Service Temperature Range: +15°F (-10°C) to 160°F (+70°C)

Series A1628 — 300 PSI PVC/polyurethane blend spray hose – 1-pass spiral construction

|      | Series | Size | Nomir | nal ID | Nomi  | nal OD |               | lorking'<br>re (PSI) | Standard<br>Coil | Appro:<br>per l |              |
|------|--------|------|-------|--------|-------|--------|---------------|----------------------|------------------|-----------------|--------------|
| PEST | No.    | Code | (In)  | (mm)   | (In)  | (mm)   | @ 70°F (20°C) | @ 122°F (50°C)       | Lengths          | 300 ft. Coil    | 400 ft. Coil |
|      | A1628  | 06   | 3/8   | 9.5    | .625  | 15.9   | 300           | 150                  | 300 or 400 ft.   | 36 lbs.         | 47 lbs.      |
|      | A1628  | 08   | 1/2   | 12.7   | .770  | 19.6   | 300           | 150                  | 300 or 400 ft.   | 49 lbs.         | 65 lbs.      |
|      | A1628  | 12   | 3/4   | 19.1   | 1.060 | 26.9   | 200           | 100                  | 300 ft.          | 80 lbs.         | _            |
|      | A1628  | 16   | 1     | 25.4   | 1.306 | 33.2   | 200           | 100                  | 200 ft.          | 67 I            | bs.          |

### Series A1661 — 600 PSI PVC/polyurethane blend spray hose – 2-pass spiral construction

| PEST &           | Series | Size | Codo |      | Nominal OD |      |               | /orking <sup>†</sup><br>re (PSI) | Standard<br>Coil | Appro:<br>per l |              |
|------------------|--------|------|------|------|------------|------|---------------|----------------------------------|------------------|-----------------|--------------|
| LAWN<br>SPRAYING | No.    | Code | (In) | (mm) | (In)       | (mm) | @ 70°F (20°C) | @ 122°F (50°C)                   | Lengths          | 300 ft. Coil    | 400 ft. Coil |
|                  | A1661  | 06   | 3/8  | 9.5  | .650       | 16.5 | 600           | 350                              | 300 or 400 ft.   | 41 lbs.         | 54 lbs.      |
|                  | A1661  | 08   | 1/2  | 12.7 | .790       | 20.1 | 600           | 350                              | 300 or 400 ft.   | 57 lbs.         | 76 lbs.      |
|                  | A1661  | 10   | 5/8  | 15.9 | 1.030      | 26.2 | 600           | 300                              | 300 ft.          | 96 lbs.         | _            |
|                  | A1661  | 12   | 3/4  | 19.1 | 1.170      | 29.7 | 600           | 300                              | 300 ft.          | 126 lbs.        |              |

## Series A1687 — 800 PSI PVC/polyurethane blend spray hose – 2-pass spiral construction

|                  | Series | Size | . ——— |      | Nominal OD |      |               | lorking <sup>†</sup><br>re (PSI) | Standard<br>Coil | Appro<br>per l |              |
|------------------|--------|------|-------|------|------------|------|---------------|----------------------------------|------------------|----------------|--------------|
| TREE<br>SPRAYING | No.    | Code | (In)  | (mm) | (In)       | (mm) | @ 70°F (20°C) | @ 122°F (50°C)                   | Lengths          | 300 ft. Coil   | 400 ft. Coil |
|                  | A1687  | 06   | 3/8   | 9.5  | .650       | 16.5 | 800           | 450                              | 300 or 400 ft.   | 41 lbs.        | 54 lbs.      |
|                  | A1687  | 08   | 1/2   | 12.7 | .850       | 21.6 | 800           | 450                              | 300 or 400 ft.   | 68 lbs.        | 90 lbs.      |
|                  | A1687  | 10   | 5/8   | 15.9 | 1.030      | 26.2 | 800           | 400                              | 300 ft.          | 96 lbs.        |              |
|                  | A1687  | 12   | 3/4   | 19.1 | 1.170      | 29.7 | 800           | 400                              | 300 ft.          | 126 lbs.       |              |

Note: Working Pressure decreases as temperature increases. Pressure ratings can only be obtained with proper coupling procedures.
 Note: Use of hydraulic or reusable-type fittings are not recommended for coupling Kuri Tec® hose products. Hose claims involving use of these fittings will be disallowed.

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# 600 PSI PVC **Reinforced Spray Hoses**



Excellent quality spray hoses made with premium quality PVC compounds, ideally-suited for lawn and ornamental spray applications using wettable powder chemicals. (Not recommended for high pressure tree spray applications.)

#### Construction:

#### Series K4131

- Tube Yellow PVC
- Reinforcement High tensile strength yarn; one-pass spiral construction
- Cover Yellow ribbed PVC

#### Features:

- Economically priced
- Ribbed cover for reduced drag and increased flexibility
- Pin-pricked cover vents vapor . . . helps prevent ballooning
- Light weight easily coiled after use
- Longitudinal reinforcing yarns enhance coupling retention and reduce elongation under pressure
- Chemical resistance of quality PVC for the transfer or spraying of "wettable powder" type chemicals. Not recommended for use with emulsifiable chemicals based on hydrocarbon carriers.
- Silicone-free

One-piece lengths

#### Construction:

#### Series A1251

- Tube Black PVC
- Reinforcement High tensile strength yarn; two-pass spiral construction
- Cover Yellow ribbed PVC with black stripe

#### Features:

- Ribbed cover for reduced drag and increased flexibility
- Unique heavy duty design offers optimum performance
- Highly abrasion-resistant cover
- Cover is pin-pricked to vent vapor pressure and prevent ballooning
- Chemical resistance of quality PVC for the transfer or spraying of "wettable powder" type chemicals. Not recommended for use with emulsifiable chemicals based on hydrocarbon carriers.
- Silicone-free

One-piece lengths

Service Temperature Range: +25°F (-5°C) to 150°F (+65°C) Service Temperature Range: 0°F (-18°C) to 150°F (+65°C)

Applications: • Agricultural spraying • Vineyard spraying • Nursery spraying • Building washdown

## Series K4131 — 600 PSI all-PVC spray hose with 1-pass spiral construction

| Series | Size | Nominal ID |      | Nominal OD |      |               | lorking <sup>†</sup><br>re (PSI) | Standard<br>Coil | Appro<br>per l |              |
|--------|------|------------|------|------------|------|---------------|----------------------------------|------------------|----------------|--------------|
| No.    | Code | (In)       | (mm) | (In)       | (mm) | @ 70°F (20°C) | @ 122°F (50°C)                   | Lengths          | 300 ft. Coil   | 400 ft. Coil |
| K4131  | 06   | 3/8        | 9.5  | .625       | 15.9 | 600           | 250                              | 300 or 400 ft.   | 35 lbs.        | 46 lbs.      |
| K4131  | 08   | 1/2        | 12.7 | .790       | 20.0 | 600           | 250                              | 300 or 400 ft.   | 54 lbs.        | 72 lbs.      |

## Series A1251 — 600 PSI all-PVC spray hose with 2-pass spiral construction

| Series | Size<br>Code | Nomi | Nominal ID |      | nal OD |               | lorking <sup>†</sup><br>re (PSI) | Standard<br>Coil | Appro<br>per l |              |
|--------|--------------|------|------------|------|--------|---------------|----------------------------------|------------------|----------------|--------------|
| No.    |              | (In) | (mm)       | (In) | (mm)   | @ 70°F (20°C) | @ 122°F (50°C)                   | Lengths          | 300 ft. Coil   | 400 ft. Coil |
| A1251  | 06           | 3/8  | 9.5        | .650 | 16.5   | 600           | 300                              | 300 or 400 ft.   | 45 lbs.        | 60 lbs.      |
| A1251  | 08           | 1/2  | 12.7       | .790 | 20.0   | 600           | 300                              | 300 or 400 ft.   | 59 lbs.        | 78 lbs.      |

† Note: Working Pressure decreases as temperature increases. Pressure ratings can only be obtained with proper coupling procedures.

Use of hydraulic or reusable-type fittings are not recommended for coupling Kuri Tec® hose products. Hose claims involving use of these fittings will be disallowed.



#### Construction:

#### Series K4350

- Tube Translucent EVA copolymer
- Reinforcement High tensile strength yarn
- Cover Translucent EVA copolymer

#### Features:

- Highly flexible
- Higher working pressures than non-reinforced EVA tubing
- Excellent low temperature flexibility
- Excellent chemical-resistance
- Silicone-free
- One-piece lengths

#### **Applications:**

- Agricultural spray applications, including anhydrous ammonia fertilizer
- Low pressure lawn spray
- Low pressure transfer of liquids and gases, including chemicals

#### Series A9350

- Tube Special translucent LLDPE
- Reinforcement High tensile strength yarn
- Cover Special "low friction" translucent copolymer

#### Features:

- Extremely light weight
- Exceptionally low resistance to dragging
- Both core and cover offer excellent chemical-resistance and resistance to environmental stress cracking
- Silicone-free
- One-piece lengths

#### **Applications:**

- Spot herbicide treatment, while fertilizing
- Automatic dilution of liquid concentrate at the spray head

Service Temperature Range: -30°F (-35°C) to 150°F (+65°C)

### Series K4350 — EVA spray hose

|        |      |      |         | ,     |        |               |                             |          |           |         |                |
|--------|------|------|---------|-------|--------|---------------|-----------------------------|----------|-----------|---------|----------------|
| Series | Size | Nom  | inal ID | Nomi  | nal OD | Max. Working  | Pressure (PSI) <sup>†</sup> | Standard | d Lengths |         | x. Wt.<br>Pkg. |
| No.    | Code | (In) | (mm)    | (In)  | (mm)   | @ 70°F (20°C) | @ 122°F (50°C)              | Coil     | Reel      | Coil    | Reel           |
| K4350  | 06   | 3/8  | 9.5     | .594  | 15.1   | 300           | 100                         | 300 ft.  | 500 ft.   | 22 lbs. | 41 lbs.        |
| K4350  | 08   | 1/2  | 12.7    | .719  | 18.3   | 250           | 75                          | 300 ft.  | 500 ft.   | 26 lbs. | 51 lbs.        |
| K4350  | 12   | 3/4  | 19.1    | .970  | 24.6   | 150           | 40                          | 300 ft.  | _         | 36 lbs. |                |
| K4350  | 16   | 1    | 25.4    | 1.313 | 33.4   | 150           | 30                          | 200 ft.  | _         | 47 lbs. | _              |

### Series A9350 — Polyethylene dual line spray hose

| ъ.              |                      | Lin | e 1                           |      |     | Lin             | e 2          |                | Max. Working  | Pressure (PSI)† | Standard        | Approx.         |
|-----------------|----------------------|-----|-------------------------------|------|-----|-----------------|--------------|----------------|---------------|-----------------|-----------------|-----------------|
| Part<br>No.     | 3S <b>1/4 6.5</b> .4 |     |                               |      |     | inal ID<br>(mm) | Nomi<br>(In) | nal OD<br>(mm) | @ 70°F (20°C) | @ 122°F (50°C)  | Length<br>Coils | Wt. per<br>Pkg. |
| A9350-04060-03S | 1/4                  | 6.5 | (In) (mm) (In<br>.457 11.6 3/ |      | 3/8 | 9.5             | .593         | 15.1           | 250           | 100             | 300 ft.         | 37 lbs.         |
| A9350-04060-04S | 1/4                  | 6.5 | .457                          | 11.6 | 3/8 | 9.5             | .593         | 15.1           | 250           | 100             | 400 ft.         | 49 lbs.         |
| A9350-04080-03S | 1/4                  | 6.5 | .457                          |      |     | 12.7            | .740         | 18.8           | 250           | 100             | 300 ft.         | 46 lbs.         |
| A9350-04080-04S | 1/4                  | 6.5 | .457                          | 11.6 | 1/2 | 12.7            | .740         | 18.8           | 250           | 100             | 400 ft.         | 61 lbs.         |

Note: Individual components of Series A9350 Dual Line Spray Hose are available on special order as Series A1710S.

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<sup>†</sup> Note: Working Pressure decreases as temperature increases. Pressure ratings can only be obtained with proper coupling procedures.



#### Construction:

#### 220 Series

 Linear low density polyethylene tubing natural colorfood grade

#### Features:

- Economical and lightweight
- LLDPE resin provides excellent environmental stress crack resistance
- Natural color
- Excellent resistance to solvents
- Chemically inert

#### **Applications:**

- Transfer of air and liquids in industrial applications
- Water lines

221

221

221

221

0462x2K

0562x15C

0662x1K

0862x500

1062x500

1/4

5/16

3/8

1/2

6.4

7.9

9.5

12.7

15.9

.125

.188

.250

.375

.500

- Water softener lines
- Pneumatic logic control lines
- Vending equipment

#### 221 Series

• Linear low density polyethylene tubing - black color

#### Features:

- Economical and lightweight
- LLDPE resin provides excellent environmental stress crack resistance
- Resistant to sunlight and other forms of ultra-violet radiation
- Chemically inert
- Excellent resistance to solvents

#### **Applications:**

- Transfer of air and liquids in industrial applications
- Humidifier fill lines
- For outdoor uses where exposure to sunlight occurs
- Air conditioning drain lines Instrument air lines

The following colors are available on special order: 2231-Yellow 2232-Orange 2234-Red 2236-Blue 2237-Green

Service Temperature Range: - 50°F (- 45°C) to + 140°F (+ 60°C)

### 220 Series — LLDPE polyethylene tubing – food grade – natural color

|        |           |      | P - 1 - 1   | ,      |            | <u> </u> | 9.1          |                  |                       |               |       |                    |
|--------|-----------|------|-------------|--------|------------|----------|--------------|------------------|-----------------------|---------------|-------|--------------------|
| Series | Size      |      | ninal<br>)D | _      | ninal<br>D | Nom<br>W | iinal<br>all | -                | Vorking†<br>ire (PSI) | Stand<br>Leng |       | Approx.<br>Wt. per |
| No.    | Code      | (In) | (mm)        | (In)   | (mm)       | (In)     | (mm)         | @ 70°F<br>(20°C) | @ 122°F<br>(50°C)     | Spool/Coil    | Pkg.  | Pkġ.               |
| 220    | 0440x2K   | 1/4  | 6.4         | .170   | 4.3        | .040     | 1.0          | 140              | 60                    | 2000 ft.      | Spool | 22 lbs.            |
| 220    | 0440x500  | 1/4  | 6.4         | .170   | 4.3        | .040     | 1.0          | 140              | 60                    | 500 ft.       | Spool | 6 lbs.             |
| 220    | 0440x100  | 1/4  | 6.4         | .170   | 4.3        | .040     | 1.0          | 140              | 60                    | 100 ft.       | Coil  | 1 lbs.             |
| 220    | 0462x2K   | 1/4  | 6.4         | .125   | 3.1        | .062     | 1.6          | 150              | 75                    | 2000 ft.      | Spool | 30 lbs.            |
| 220    | 0562x15C  | 5/16 | 7.9         | .188   | 4.8        | .062     | 1.6          | 150              | 75                    | 1500 ft.      | Spool | 30 lbs.            |
| 220    | 0662x1K   | 3/8  | 9.5         | .250   | 6.4        | .062     | 1.6          | 125              | 50                    | 1000 ft.      | Spool | 25 lbs.            |
| 220    | 0662x500  | 3/8  | 9.5         | .250   | 6.4        | .062     | 1.6          | 125              | 50                    | 500 ft.       | Spool | 13 lbs.            |
| 220    | 0662x100  | 3/8  | 9.5         | .250   | 6.4        | .062     | 1.6          | 125              | 50                    | 100 ft.       | Coil  | 3 lbs.             |
| 220    | 0862x500  | 1/2  | 12.7        | .375   | 9.5        | .062     | 1.6          | 100              | 35                    | 500 ft.       | Spool | 18 lbs.            |
| 220    | 1062x500  | 5/8  | 15.9        | .500   | 12.7       | .062     | 1.6          | 75               | 25                    | 500 ft.       | Coil  | 23 lbs.            |
| 221 Se | ries — LI | DPE  | polye       | thylen | e tubir    | ng – in  | dustri       | al grade         | - black               | color         |       |                    |
| 221    | 0440x2K   | 1/4  | 6.4         | .170   | 4.3        | .040     | 1.0          | 140              | 60                    | 2000 ft.      | Spool | 22 lbs.            |

.062

.062

.062

.062

.062

1.6

1.6

1.6

1.6

1.6

150

150

125

100

75

75

75

50

35

2000 ft.

1500 ft.

1000 ft.

500 ft.

500 ft.

Spool

Spool

Spool

Spool

30 lbs.

30 lbs.

25 lbs.

18 lbs.

23 lbs.

3.1

4.8

6.4

9.5

12.7

<sup>†</sup> Note: Working Pressure decreases as temperature increases. Pressure ratings can only be obtained with proper coupling procedures.

# Considerations for Selecting and Using Spray Hose

One of the most demanding hose applications is chemical spray, as seen in lawn care and pest control. The hose is subject to both internal and external stress. Internal hose stress results from the high pressures used and the aggressive nature of the chemicals. External stress is applied to the hose by pulling and dragging the hose, as well as exposure to the freshly applied chemicals.

Several Kuri Tec® hoses are offered for use in chemical spray applications and, in order to obtain optimum performance and service life, it is essential that the proper hose be selected and that proper care be taken in handling the hose.

#### What type of chemical is being conveyed?

In general, lawn care and pest control chemicals fall into two classifications, based on the physical form of the substance: wettable powders (WP) and emulsifiable liquid concentrates (EC).

Wettable powders are supplied in dry powder or granular form and are dissolved in water to create a sprayable solution. The substances are generally stable when in solution and will not "settle out" when allowed to stand. All of our pest control, lawn, and tree chemical spray hoses will handle most of these wettable concentrates in aqueous solutions at normal suggested concentrations.

Emulsifiable concentrates are supplied in a liquid form in which the herbicide or pesticide is dissolved in a carrier that is itself a solvent or oil-based substance. When mixed with water, these substances become "emulsions" in which the chemicals are not truly dissolved in the water. When allowed to stand, the chemicals will separate from the water, generally floating to the top. The emulsified carriers themselves have an effect on the hose's core tube and, in combination with the other chemicals being used, can have a significant effect on the hose material when they separate and form a more concentrated phase.

For emulsifiable concentrate chemicals, we suggest the use of Kuri Tec hoses using PVC/Polyurethane blend compounds in the core tube, such as Series A1628, A1661 and A1687. "All PVC" spray hoses such as Series K4131

and K1251 are not suggested for use with these chemicals, because of the possibility of phase separation in the mixture.

Regardless of the type of hose used with the emulsifiable concentrate chemicals, it is recommended that the hose be drained if it is going to stand for an extended period of time, since even on a reel the chemicals may separate out of the water emulsion and collect in concentrated bands at the top of the reel.

NOTE: All Kuri Tec hose suggestions are for aqueous solutions or emulsions of the chemical herbicide, pesticide or fertilizer in the suggested concentrations. For transfer of an emulsifiable concentrate in its pure form, a premium chemical spray hose such as Series A4086, with its polyethylene liner, is suggested.

# At what working pressure and operating temperature will the hose be used?

All hoses, but particularly thermoplastic hoses, are affected by temperature. As the operating temperature rises, the material will soften slightly and the working and burst pressures will be reduced. It is not unusual for the hose temperature in a lawn spraying application to rise to 120° F. in summer. The individual pressure rating tables should be consulted to determine the maximum working pressure at 122° F. In general, one can expect a reduction of 40% to 60% in the working pressure rating at 120° F., when compared to the working pressures for the same hose at 70° F. This factor must be considered when selecting the proper hose.

#### What type of fittings should be used?

As explained in the Fitting Compatibility Guide, a double-barbed fitting held in place with two band clamps appears to be the best choice for Kuri Tec spray hoses. In addition, the use of spring guards is highly recommended in order to prevent kinking of the hose at the fittings. Properly crimped ferrules over multi-barbed fittings are also suitable, provided a gap is provided at the end of the ferrule to avoid "wicking" of the fluid along the yarn.

# Summary of Suggested Spray Hose Applications

|           |           |          | Descript    | ion        |              |                          | Suit     | ability      |
|-----------|-----------|----------|-------------|------------|--------------|--------------------------|----------|--------------|
| Series    | Core      |          | Jacket F    | Properties |              | Working                  | Wettable | Emulsifiable |
|           | Materials | Material | Color       | Surface    | Perforations | Pressure<br>(PSI @ 70°F) | Powders  | Liquids      |
| K3150     | PVC       | PVC      | Clear       | Smooth     | No           | 250                      | Yes      | No           |
| K4131     | PVC       | PVC      | Yellow      | Ribbed     | Yes          | 600                      | Yes      | No           |
| A1251 (i) | PVC       | PVC      | Yellow      | Ribbed     | Yes          | 600                      | Yes      | No           |
| A1628     | PVC/TPU   | PVC      | Grey        | Ribbed     | Yes          | 300                      | Yes      | Yes          |
| A1661 (i) | PVC/TPU   | PVC      | Yellow      | Ribbed     | Yes          | 600                      | Yes      | Yes          |
| A1687 (i) | PVC/TPU   | PVC      | Green       | Ribbed     | Yes          | 800                      | Yes      | Yes          |
| A4086 (i) | LLDPE     | TPE      | Blue        | Smooth     | Yes          | 800                      | Yes      | Yes (ii)     |
| A1710S    | LLDPE     | EVA      | Translucent | Smooth     | No           | 250                      | Yes      | Yes (ii)     |
| K4350     | EVA       | EVA      | Translucent | Smooth     | No           | 150 - 250                | Yes      | Yes (ii)     |

NOTE: (i) Two-pass reinforcement provides improved kink resistance and pressure performance.

(ii) Suitable for transfer of emulsifiable concentrate in undiluted form.

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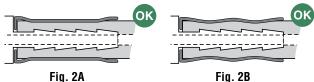
# Fitting Compatibility Guide

# Fitting Suggestions for Kuri Tec® Hose & Tubing

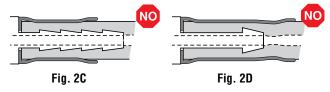
It is extremely important that the fitting and hose or tubing be properly matched in size and type. The insert should always be slightly larger than the tubing to create a slight expansion of the tube and provide a good consistent seal. If a clamp or ferrule is used to compress the hose, caution must be used to prevent over-crimping the ferrule or over-tightening the clamp. More pressure does not necessarily improve fitting retention.

We do not recommend the use of reusable fittings unless the hose and fitting have been specifically designed to be compatible and have been thoroughly tested in combination prior to use. do not recommend the use of one-piece crimped hydraulic fittings with Kuri Tec hoses.

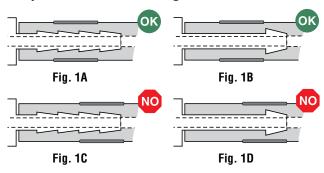
for hydraulic fittings. For this reason, as a general rule we



In figures 2A and 2B above, two styles of crimping die have been used successfully. The ferrules and fittings are properly matched in length.



Clamps over barbed fittings



In the illustrations above, the clamps are properly positioned in Figure 1A and 1B, directly over the middle barbs and behind the first barb. This is extremely important in the case of single-barb fittings, as shown in Figure 1B, since the barb is generally much larger than the shank of the fitting. The compressed material cannot pass over the barb when under tension, thus securely holding the fitting to the hose.

In Figures 1C and 1D, the clamp has been improperly positioned too close to the end of the fitting. In Figure 1C, only the barb nearest the end of the fitting is effective in maintaining fitting retention. The first two barbs serve no purpose whatsoever in providing fitting retention or leak resistance. In Fig. 1D, the situation is even worse, since the clamp can very easily cut the core tube over the enlarged barb, leading to leakage and subsequent cover blisters or bursts.

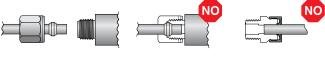
When choosing multi-barb fittings for use with Kuri Tec hose, as in Fig. 1A and 1C, it is important that the barbs not be too deep. The core tubes in Kuri Tec hoses are generally somewhat harder than conventional rubber tubes and therefore the material cannot flow into the deep barb, as it would with a soft rubber compound.

In Fig. 2C, the ferrule is much shorter than the barbed insert. Without the protection of the ferrule, repeated harsh flexing of the hose at the fitting can damage the tube. In addition, the short ferrule does not take full advantage of the sealing or retention properties of the barbed insert.

In figure 2D, there are two potential problems: 1) The excessively-long ferrule can reduce the inside diameter of the hose just beyond the fitting; and 2) a single-barb fitting is not the ideal insert for a crimped ferrule. Because of the increased depth of the single barb, the tube can be cut by the force of the crimping before sufficient compression is exerted on the shank of the fitting.

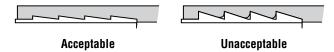
#### **Compression Fittings**

Compression fittings depend solely on contact with the outer surface of the tubing to provide sealing and holding power. There is no seal on the inner surface of the tubing. With the exception of 220/221 Series LLDPE tubing, we do not recommend the use of compression fittings with Kuri Tec hose and tubing. To work properly, the material must be hard and smooth and there must be no yarn reinforcement layer.



Compression Sleeve

Push-to-connect

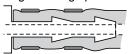


#### Ferrules crimped over barbed fittings

When properly crimped, a metal ferrule over a multibarbed fitting can provide excellent fitting retention and leak resistance. However, excessive crimping pressure can damage the core tube, leading to hose failure. Extreme care must also be taken to control the crimping diameter

#### Fitting suggestions for Kuri Tec® spray hoses

In addition to the properly installed fittings shown in Fig. 1A, 1B, 2A and 2B above, we also suggest the use of a two-barb clamped fitting when high pressures are involved.



The double-barb fitting, held in place by two properly positioned clamps, provides excellent fitting retention and

# **Fitting Compatibility Guide**

leak resistance without risk of damage to the core tube or deterioration of the yarn reinforcement due to wicking.

#### Hose failure near a fitting

A hose is most susceptible to failure near the fitting. The installation of the fitting involves some risk of damage to the core tube. There is also some possibility of slight leakage along a fitting and subsequent yarn wicking, particularly if a one-piece crimped fitting is used. The greatest amount of flexing often occurs near the fitting at either the supply or service end of the hose.

In the investigation of a hose failure near the fitting, it is essential that the fitting/hose interface be examined. In the field, if the failure or deterioration is isolated to the area near the fitting, it is best to cut off the end of the hose, reinstall a new fitting, and monitor the hose in service to see if the problem reoccurs.

If the problem involves a spray hose and fluid slowly leaking through the cover perforations near the fitting, the most likely cause is wicking along the reinforcing yarn from the end of the hose or from a cut or break in the core tube.

Such wicking can extend over several feet and a leak may be seen at a considerable distance from the source of the leak

If a hose is being returned to the supplier for investigation of a failure, it is essential that the fitting . . . or at least the section of hose in contact with the fitting . . . be returned. Only by examining the inner surface of the tube that was in contact with the fitting can one determine with certainty if the problem began at the fitting.

#### WARNING

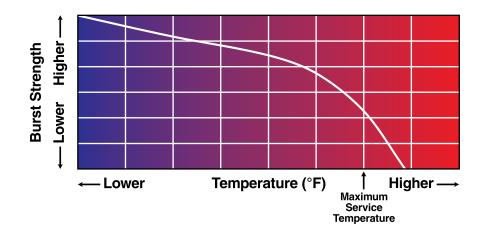
The above comments and fitting suggestions are intended for use as guidelines only. The information provided is based on tests which we believe to be reliable and on our past observations and experience. No warranty is expressed or implied, as applications and methods of fitting installation can vary widely. Before placing a hose in service, the user *must* determine the suitability of the fitting and hose/tube for his or her intended use. The user assumes all risk and liability resulting from the use of any Kuri Tec product with any fitting whatsoever.

# **Temperature Dependence of Pressure Rating**

As a general rule, the working pressure ratings for plastic reinforced hoses are based on room temperature conditions. The maximum allowable pressure for a hose decreases as the temperature increases and the material becomes softer and more elastic. Fitting retention decreases at higher temperatures as the compression on the material declines.

Working pressure ratings can be affected significantly by the type of fitting used, the method of attachment, and the temperature to which the hose assembly is exposed in service. Repeated intermittent periods of exposure to elevated temperatures can affect fitting retention and it is, therefore, very difficult to assign working pressure ratings at high temperatures. The graph below demonstrates the overall trend.

# Burst strength decreases as temperature increases



# Working Pressure Ratings

Working pressure ratings are given in this catalog at 70°F and 122°F. Between 122°F and the maximum service temperature, it must be noted that a rapid decline in the pressure rating of the hose may occur, and all factors relating to the hose, fittings and service conditions must be taken into consideration.

No warranty is expressed or implied, as applications and methods of fitting installation may vary widely. Before placing a hose in service, the user *must* determine the suitability of the product under the correct working conditions, and assumes all risk and liability in connection therewith.

Many new materials have been developed to handle the wide range of modern chemicals being used in industry today. Many of these materials are now being used in the construction of Kuri Tec® hose and tubing products.

The following guide has been prepared to assist the user in the selection of the correct hose for the application. The recommendations are based on the best chemical data available at the time of printing. This guide will be continuously reviewed and new information added as it becomes available.

A material's resistance to the effects of a chemical depends not only upon the particular chemical, but also on other factors such as length of exposure, service temperature, pressure, fluid velocity, and the relative concentration of each component in multicomponent mixtures. Therefore, no guarantee is expressed or implied.

The chemical resistance ratings for materials are based on pure material samples and may not take into account specific factors related to the material when used in a hose or tube. It is always advisable that the product be tested under actual conditions.

Additionally, the Chemical Resistance Guide which follows does not imply conformance to any food handling regulations or federal or state/provincial laws governing hose and tubing applications.

Before using any Kuri Tec hose/tubing product with any chemical substance the user must determine the suitability of the product for his/her intended use. The user assumes all risk and liability for the use of any Kuri Tec product with any chemical or other substance.

# **Key to Chemical Resistance Guide Ratings**

- E = Excellent Little or no effect due to exposure to the chemical.
- G = Good Satisfactory service expected, but some deterioration may occur after lengthy exposure or under extreme conditions.
- L = Limited Variable resistance depending upon the conditions of use (e.g. nature of the chemical, its concentration, service temperature, pressure, etc.).
- U = Unsuitable Not resistant. Not recommended for use under any conditions.
- C = Cautionary Although the chemical resistance of the material may be good, special factors exist that must be considered in hose applications, such as regulatory issues, permeation of vapors, and safety, health or environmental concerns.

### Key: E=Excellent G=Good L=Limited U=Unsatisfactory C=Cautionary

| Motorial Handled  | P۱                    | /C                    | PVC<br>Ble            | nd                    | Rub<br>Ble            | nd                    |                       | PE                    |                       | /A                    | TI                    | PU                    | Motorial Handled   | P۱                    | vc                    | PVC<br>Ble            | nd   | Ble                   | end              |             | PE          |             | A           | TPU                             |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|--|-----------------------|-----------------------|-----------------------|--|-----------------------|------------------|-------------|-------------|-------------|-------------|---------------------------------|
| Material Handled  | 70                    | 150                   | 70                    |                       | mp<br>70              |                       |                       |                       |                       | 150                   | 70                    | 150                   | Material Handled   | 70                    | 150                   | 70                    |  |                       | erat             |             |             |             | 150         | 70 15                           |
| Acetaldehyde<br>Acetate Solvents - Pure<br>Acetic Acid - Glacial<br>Acetic Acid 0-10%<br>Acetic Acid 10-20%       | U<br>U<br>L<br>E<br>G | U<br>U<br>U<br>G<br>L | U<br>U<br>L<br>G      | U<br>U<br>U           | L<br>G<br>U<br>E<br>G | U<br>L<br>U<br>G<br>L | G<br>E<br>L<br>E      | L<br>G                | G<br>L<br>U<br>E      | U<br>U<br>U<br>E<br>G | U<br>L<br>U<br>U      | U<br>U<br>U<br>U      | Arylsulfonic Acid<br>Asphalt<br>ASTM #1 Oil<br>ASTM #3 Oil<br>ASTM Fuel A                            | LLLL                  | U<br>U<br>U<br>U      | L                     | U  | _                     |                  | _           | –<br>U<br>– | –<br>U<br>– | _<br>U<br>_ | U U<br>G L<br>G G<br>G G        |
| Acetic Acid 20-30 Pct<br>Acetic Acid 30-60%<br>Acetic Acid 80%<br>Acetic Acid Vapors<br>Acetic Anhydride          | G<br>G<br>L<br>G<br>U | L<br>L<br>G<br>U      | G<br>G<br>L<br>G<br>U | L<br>L<br>G<br>U      | G<br>L<br>U<br>G<br>U | L<br>U<br>L<br>U      | E G U G U             | G<br>L<br>U<br>L<br>U | E<br>L<br>G<br>L      | L<br>U<br>U<br>L<br>L | U<br>U<br>U<br>U<br>U | U<br>U<br>U<br>U<br>U | ASTM Fuel B<br>ASTM Fuel C<br>Barium Carbonate<br>Barium Chloride<br>Barium Hydroxide                | U<br>U<br>E<br>E      | U<br>U<br>E<br>E<br>E | U U E E E             | U<br>U<br>E<br>E                                     | -<br>E<br>E<br>E      | –<br>E<br>E<br>E |             | Ε           | E           | -<br>-<br>- | G L<br>G L<br>E E<br>G L        |
| Acetone<br>Acetylene<br>Acrylonitrile<br>Adipic Acid<br>Alcohol (See Type)  | U<br>C<br>L<br>G      | U<br>C<br>U<br>L      | U C L G -             | U C U L -             | L<br>U<br>-<br>G<br>- |                       | E<br>U<br>-<br>E<br>- | G<br>U<br>-<br>G      | L<br>U<br>-<br>E<br>- | U<br>U<br>-<br>G      | C - U -               | U<br>C<br>-<br>U      | Barium Sulfate<br>Barium Sulfide<br>Beer<br>Beet-Sugar Liquor<br>Benzaldehyde                        | E E E U               | E<br>E<br>L<br>E<br>U | _                     | E<br>E<br>-<br>U                                     | E<br>E<br>E<br>U      | –<br>E           | E<br>E      | E<br>L<br>E | E<br>-<br>E | -<br>-<br>- | E E E E U U                     |
| Allyl Alcohol 96%<br>Allyl Chloride<br>Alum<br>Aluminum Chloride<br>Aluminum Fluoride                             | U<br>U<br>E<br>G      | U<br>U<br>E<br>G      | U U E G               | U U E G               | E G E G G             | G<br>L<br>E<br>G      |                       | G                     | E<br>L<br>E<br>G      | G U G C L             | U<br>U<br>E<br>G<br>G | U<br>U<br>E<br>G<br>L | Benzene<br>Benzoic Acid<br>Benzol<br>Bismuth Carbonate<br>Black Liquor (Paper industry               | U G<br>U E<br>y)E     | U L U E E             | L<br>G<br>L<br>E<br>E | U<br>L<br>U<br>E<br>E                                | U<br>G<br>U<br>E<br>E | U                |             | G<br>U<br>E | Ü           | U           | L U<br>U U<br>L U<br>E E        |
| Aluminum Hydroxide<br>Aluminum Nitrate<br>Aluminum Oxychloride<br>Aluminum Sulfate<br>Ammonia - Aqueous           | E<br>E<br>E<br>L      | E<br>E<br>E<br>U      | E E E L               | E<br>E<br>E<br>U      | G<br>E<br>G<br>E<br>G | G<br>E<br>G<br>E<br>G | G<br>E<br>G<br>E<br>E | G<br>E<br>G<br>E<br>G | G<br>E<br>G<br>E<br>E | G<br>-<br>-           | G<br>L<br>-<br>G<br>U | L<br>L<br>G<br>U      | Bleach - 12.5% Active CL<br>Borax<br>Boric Acid<br>Boron Trifluoride<br>Brake Fluid                  | G<br>E<br>E<br>U      | L<br>E<br>E<br>U      | G<br>E<br>E<br>U      | L<br>E<br>E<br>U                                     | G<br>E<br>E<br>E      |                  |             | E<br>E      | Ē           | -           | L U<br>E E<br>G U<br>E E<br>U U |
| Ammonia - Dry Gas<br>Ammonia - Liquid<br>Ammonium Carbonate<br>Ammonium Chloride<br>Ammonium Fluoride 25%         | L<br>U<br>E<br>U      | U U E E U             | L<br>U<br>E<br>E<br>U | U U E E U             | E G E E G             | E<br>L<br>E<br>G      | E E E G               | G<br>L<br>E<br>G      | E<br>E<br>E<br>G      | _<br>U<br>_<br>_      | U U E G L             | UUELU                 | Brine<br>Bromic Acid<br>Bromine - Liquid<br>Bromine - Water<br>Butadiene                             | E<br>E<br>U<br>U<br>L | E L U U U             | E<br>E<br>U<br>U<br>L | E<br>L<br>U<br>U<br>L                                | E G U U U             | G<br>U<br>U      | G<br>U<br>U | G<br>U<br>U | G<br>U<br>U | –<br>U      | G U<br>U U<br>U U<br>U U        |
| Ammonium Hydroxide 28%<br>Ammonium Metaphosphate<br>Ammonium Nitrate<br>Ammonium Persulfate<br>Ammonium Phosphate | E<br>E<br>E           | U E E G               | L<br>E<br>E<br>G      | U E E G               | Ε                     | G<br>G<br>E<br>G      | E<br>G<br>E<br>E<br>E | Ε                     | Ē                     | E<br>E<br>-<br>-      | L<br>G<br>G<br>G      | U<br>G<br>G<br>G      | Butane<br>Butanol - Primary<br>Butanol - Secondary<br>Butter<br>Butyl Acetate                        | C U U L U             | CUULU                 | C U U - L             | C<br>U<br>U<br>-<br>U                                | U<br>E<br>E<br>-<br>U |                  | E<br>E<br>L | G<br>G<br>L | G<br>G<br>– | -<br>-<br>- | C C<br>L U<br>L U<br><br>L U    |
| Ammonium Phosphate –<br>Neutral<br>Ammonium Sulfate<br>Ammonium Sulfide<br>Ammonium Thiocyanate                   | E<br>E<br>E           | E<br>E<br>E           | E<br>E<br>E           | E<br>E<br>E           | G<br>E<br>E<br>E      | G<br>E<br>E<br>E      | E<br>E<br>E           | G<br>E<br>E<br>E      | E<br>E<br>E<br>E      | -<br>-<br>-<br>-      | G<br>E<br>G           | G<br>E<br>E<br>G      | Butyl Alcohol<br>Butyl Cellosolve<br>Butyl Phenol<br>Butylene<br>Butyric Acid 20%                    | LULCL                 | U U C U               | LULCL                 | $\begin{array}{c} L \\ U \\ U \\ C \\ U \end{array}$ |                       | L<br>U<br>U      | E<br>U<br>U | G<br>U<br>U | _<br>U<br>_ | –<br>U      | L U<br><br>C C<br>L U           |
| Amyl Acetate<br>Amyl Alcohol<br>Amyl Chloride<br>Aniline<br>Aniline Chlorohydrate                                 | U<br>L<br>U<br>U<br>U | U<br>U<br>U<br>U<br>U | U<br>L<br>U<br>U<br>U | U<br>U<br>U<br>U<br>U |                       | U<br>L<br>U<br>U<br>U | L<br>G<br>U<br>U<br>U | U<br>L<br>U<br>U<br>U | U<br>G<br>U<br>U<br>U | _<br>L<br>_<br>U<br>U | U<br>U<br>-<br>U<br>U | U<br>U<br>-<br>U<br>U | Calcium Bisulfite Calcium Carbonate Calcium Chlorate Calcium Chloride Calcium Hydroxide              | EEEE                  | E E E E               | E E E E               |  | E E E E               | E<br>E           | E<br>E      | E<br>E<br>E | E           | -<br>-<br>- | E E<br>E E<br>G L<br>E G<br>G L |
| Aniline Hydrochloride<br>Animal Oils<br>Anthraquinone<br>Anthraqunonesulfonic Acid<br>Antimony Trichloride        | U<br>L<br>E<br>E      | U<br>U<br>E<br>E<br>E | U<br>E<br>E<br>E      | U<br>U<br>E<br>E<br>E | U<br>U<br>E<br>E<br>E | U<br>U<br>E<br>E<br>E | U<br>L<br>E<br>E      | U<br>U<br>E<br>E<br>E | U<br>E<br>E<br>E      | U<br>U<br>-<br>-      | U<br>G<br>-<br>U<br>E | U<br>L<br>-<br>U<br>E | Calcium Hypochlorite<br>Calcium Nitrate<br>Calcium Sulfate<br>Cane Sugar Liquors<br>Carbon Bisulfide | E<br>E<br>E<br>U      | E E E U               |                       | E<br>E<br>E<br>-<br>U                                | E<br>E<br>G<br>U      | E<br>G           | E<br>G      | E<br>E<br>G | E<br>G      | _           | U U<br>E E<br>E E<br>           |
| Apple (Sauce or Juice)<br>Aqua Regia<br>Aromatic Hydrocarbons<br>Arsenic Acid 80%                                 | E<br>L<br>U<br>E      | E<br>U<br>U<br>G      | _<br>L<br>_<br>E      | _<br>U<br>_<br>G      | –<br>U<br>–<br>E      | _                     | E<br>U<br>-<br>E      | _                     | _<br>U<br>_<br>G      | _<br>U<br>_<br>_      | -<br>U<br>-<br>U      | _<br>U<br>_<br>U      | Carbon Dioxide<br>(Aqueous Solution)<br>Carbon Dioxide Gas (Wet)<br>Carbon Monoxide                  | E<br>E<br>E           | E<br>E<br>E           | E<br>E<br>E           | E<br>E<br>E  | E<br>E<br>G           | E<br>E<br>G      | Ε           |             |             |             | E E E                           |

### Key: E=Excellent G=Good L=Limited U=Unsatisfactory C=Cautionary

| Material Handled  | P۱                    | /C                    | PVC<br>Ble            | end                   | Rub                   | end                   |                       | PE                    | E۱                    | ۷A                    | T                     | PU                    |   | Material Handled   | P۱                    | /C                    | PVC<br>Ble            | IIu                   | DIE                   | ilu                   |                       |                       | ΕV                    | /Α                    | TP               | U,                    |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|---|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------|-----------------------|
| wateriai nandied  | 70                    | 150                   | 70                    |                       | emp                   |                       |                       | •                     |                       | 150                   | 70                    | 150                   |   | Material Handled   | 70                    | 150                   | 70                    |                       |                       |                       |                       | (°F)<br>150           |                       | 150                   | 70               | 150                   |
| Carbon Tetrachloride<br>Carbonic Acid<br>Casein<br>Castor Oil<br>Catsup   | U<br>L<br>E<br>E      | U<br>U<br>L<br>E<br>G | L<br>G<br>E<br>E      | U<br>G<br>E           | U                     | U<br>G<br>E           | L<br>G<br>E           | U<br>G<br>E<br>U      | U                     | U<br>G<br>-           | L<br>U<br>E           | U<br>U<br>E<br>E      | J | Diethylene Glycol Diglycolic Acid Di-isodecyl Phthalate Dimethylamine Dioctyl Phthalate          | G E U U U             | L<br>G<br>U<br>U      | G<br>E                | L<br>E<br>-<br>U      | Ε                     | L<br>G                | E<br>E<br>-           | G<br>G<br>-           | G<br>E                | L<br>-<br>-           |                  | U<br>-<br>-<br>U<br>- |
| Caustic Potash<br>Caustic Soda<br>Cellosolve<br>Chloracetic Acid<br>Chloral Hydrate                             | E<br>E<br>L<br>E      | E<br>E<br>U<br>U<br>E | E<br>G<br>E<br>E      | E<br>E<br>L<br>U<br>E | L<br>G<br>G<br>U<br>U | L<br>L<br>U<br>U      | L<br>G<br>G<br>U      | L<br>L<br>L<br>U      | L<br>G<br>L<br>U<br>L | -<br>U<br>U<br>U      | L<br>G<br>U<br>G      | U<br>U<br>L<br>U<br>L |   | Disodium Phosphate<br>Distilled Water<br>Ethers<br>Ethyl Acetate<br>Ethyl Acrylate               | E<br>U<br>U<br>U      | E<br>U<br>U<br>U      | E<br>L<br>L<br>U      | E<br>E<br>U<br>U<br>U | E<br>U<br>L           | E<br>U<br>U<br>-      |                       | E<br>L<br>G           | E<br>U<br>L           |                       | E<br>G<br>L      | E<br>L<br>U<br>–      |
| Chloric Acid 20%<br>Chlorinated Hydrocarbons<br>Chlorine Gas (Dry)<br>Chlorine Gas (Moist)<br>Chlorine Water 2% | E<br>U<br>G<br>L<br>G | E<br>U<br>G<br>U<br>L | E<br>U<br>G<br>L<br>G | E<br>U<br>G<br>L<br>L | -<br>U<br>U<br>U<br>L | -<br>U<br>U<br>U<br>U | -<br>U<br>U<br>U<br>G | -<br>U<br>U<br>U<br>L | -<br>U<br>U<br>U<br>G | -<br>U<br>U<br>U<br>L | U<br>U<br>U<br>U<br>L |                       |   | Ethyl Alcohol 0-50%<br>Ethyl Alcohol 50-98%<br>Ethyl Chloride<br>Ethyl Ether<br>Ethylene Bromide | G<br>L<br>U<br>U<br>E | L<br>U<br>U<br>U<br>U | E<br>G<br>U<br>U<br>U | G<br>L<br>U<br>U<br>U | G<br>L<br>U<br>U<br>U | L<br>U<br>U<br>U<br>U | E<br>U<br>U<br>U      | U                     | G<br>L<br>U<br>U<br>U | U<br>U<br>U           | E<br>U<br>G      | L<br>G<br>U<br>L<br>U |
| Chlorine Water Saturated<br>Chlorobenzene<br>Chloroform<br>Chlorsulfonic Acid<br>Chrome Alum                    | L<br>U<br>U<br>L<br>E | U U U U E             | L<br>U<br>U<br>L<br>E | U U U U E             | -<br>U<br>U<br>U<br>G | -<br>U<br>U<br>U<br>G | E                     |                       | E<br>U<br>U<br>U<br>E | -                     | _<br>U<br>U<br>U<br>E | –<br>U<br>U<br>U<br>E |   | Ethylene Dichloride<br>Ethylene Glycol<br>Ethylene Oxide<br>Fatty Acids<br>Ferric Chloride       | U E U E E             | U E U E E             | U<br>E<br>U<br>E<br>E | U E U E E             | U E U G E             | U<br>G<br>U<br>L<br>E | U E U G E             |                       | U<br>E<br>U<br>L<br>E | U                     |                  | U<br>L<br>U<br>L<br>E |
| Chromic Acid 10%<br>Chromic Acid 25%<br>Chromic Acid 30%<br>Chromic Acid 40%<br>Chromic Acid 50%                | G<br>G<br>L<br>L<br>L | L<br>U<br>U<br>U      | G<br>G<br>L<br>L<br>L | L<br>U<br>U<br>U      |                       | L<br>U<br>U<br>U      | L<br>L                | L<br>U<br>U<br>U      | G<br>G<br>L<br>L<br>L | -<br>U<br>U<br>U      | _                     | _                     |   | Ferric Nitrate Ferric Sulfate Ferrous Chloride Ferrous Sulfate Fish Solubles                     | E<br>E<br>E<br>E<br>E | E<br>E<br>E<br>E<br>E | E<br>E<br>E<br>E<br>E | E<br>E<br>E<br>U      | E<br>E<br>E<br>E      | E<br>E<br>E<br>E      | E<br>E<br>E<br>E      | E<br>E<br>E<br>E      | E<br>E<br>E<br>E      | -<br>-<br>-<br>-      | E<br>E<br>E<br>E | E<br>E<br>E<br>G      |
| Chromic Acid Plating Solution Cider Citric Acid Coal Tar  | –<br>E<br>E<br>U      | -<br>L<br>E<br>U      | -<br>E<br>U           | -<br>E<br>U           | -<br>E<br>U           | –<br>–<br>E<br>U      | –<br>E<br>E<br>U      | -<br>G<br>E<br>U      | E<br>E<br>E<br>U      | E<br>L<br>E<br>U      | U<br>-<br>U<br>U      | U<br>-<br>U<br>U      |   | Fluorine Gas - Dry<br>Fluorine Gas - Wet<br>Fluoroboric Acid<br>Fluorosilicic Acid<br>Foric Acid | U U E E E             | U U E E L             | U<br>U<br>E<br>E<br>E | U<br>U<br>E<br>E<br>L | U<br>U<br>E<br>G<br>E | U<br>U<br>E<br>L<br>G | U<br>U<br>E<br>G<br>E |                       | Ξ                     | <u>-</u>              | Ü                | U<br>U<br>E<br>U<br>U |
| Coconut Oil<br>Copper Chloride<br>Copper Cyanide<br>Copper Fluoride 2%<br>Copper Nitrate                        | G<br>E<br>E<br>E      | L<br>E<br>E<br>G      |                       | G<br>E<br>E<br>E<br>E | G<br>E<br>E<br>E<br>E | L<br>E<br>E<br>G      | G<br>E<br>E<br>E<br>E | L<br>E<br>E<br>G      | L<br>E<br>E<br>E      | U<br>-<br>-<br>-      | E<br>E<br>E<br>E      | E<br>E<br>E<br>E      |   | Formaldehyde<br>(40% Aqueous)<br>Formic Acid 3%<br>Formic Acid 10%<br>Formic Acid 25%            | U<br>-<br>-           | U<br>-<br>-           | G<br>-<br>-           | G<br>-<br>-           | G<br>-<br>-           | L<br>-<br>-           | G<br>-<br>-           | L<br>-<br>-           | E<br>E<br>E           | G<br>E<br>E<br>E      | -<br>-<br>-      | -<br>-<br>-           |
| Copper Sulfate<br>Corn Oils<br>Cottonseed Oil<br>Creosote<br>Cresol   | E<br>G<br>U<br>U      | G<br>G<br>L<br>U<br>U | E<br>E<br>U           | E<br>E<br>U           | E<br>-<br>E<br>U<br>U | E<br>G<br>U<br>U      | E<br>L<br>E<br>U<br>U | E<br>U<br>G<br>U<br>U | E - E U U             | -<br>-<br>U<br>U      | E<br>E<br>L           | E<br>E<br>-<br>U      |   | Formic Acid 50% Formic Acid 100% Freon-12 Fructose Fruit Pulps and Juices                        | -<br>L<br>E<br>E      | -<br>U<br>E<br>E      | –<br>G<br>–           | -<br>L<br>-           | –<br>G<br>E<br>E      | –<br>L<br>E<br>E      | –<br>G<br>E<br>E      | -<br>L<br>E<br>E      | E<br>U<br>G<br>E<br>E | E<br>U<br>-<br>-      | Ε                | –<br>E<br>E<br>E      |
| Cresylic Acid 50%<br>Crude Oil - Sour<br>Crude Oil - Sweet<br>Cyclohexane<br>Cyclohexanol                       | U<br>L<br>L<br>U<br>U | U<br>U<br>U<br>U<br>U | L<br>L<br>U<br>U      | L<br>U<br>U<br>U<br>U | U<br>U<br>U<br>L<br>L | U<br>U<br>U<br>U<br>U | U<br>U<br>U<br>G<br>G | U<br>U<br>U<br>G<br>L | U U U L               | U<br>U<br>U<br>U<br>L | U<br>E<br>G<br>L      | U<br>E<br>L<br>U      |   | Fuel Oil<br>Furfural<br>Furfuryl Alcohol<br>Gallic Acid<br>Gas - Coke Oven                       | G<br>U<br>E<br>G      | L<br>U<br>E<br>G      | G<br>U<br>E<br>G      | U<br>E<br>G           | U<br>U<br>-<br>E<br>- | U<br>U<br>-<br>E<br>- | U<br>-                | U<br>U<br>-<br>E<br>- | U<br>U<br>U<br>E<br>- | U<br>U<br>U<br>-      | U<br>-<br>-      | G<br>U<br>-<br>G      |
| Cyclohexanone<br>Demineralized Water<br>Dextrin<br>Dextrose<br>Di-acetone Alcohol                               | U<br>E<br>E<br>E      |                       | U<br>E<br>-<br>-      | U<br>E<br>E<br>-      | U<br>E<br>E<br>E      | U<br>E<br>E<br>E      | G<br>E<br>E<br>E      | L<br>E<br>E<br>G      |                       | L<br>E<br>-<br>-      |                       | U<br>E<br>E           |   | Gas - Natural (Dry)<br>Gas - Natural (Wet)<br>Gasoline<br>Gasoline - Refined<br>Gasoline - Sour  | C                     | CCUUU                 | U<br>G                | CCUUU                 | U<br>U<br>U<br>L<br>U | U<br>U<br>U<br>U<br>U | U<br>G<br>L<br>U      |                       | U<br>U<br>-<br>U<br>U | U<br>U<br>-<br>U<br>U | C<br>E           | C C G G               |
| Diazo Salts<br>Dichlorobenzene<br>Diesel Oils<br>Diethyl Ether  | E<br>U<br>L<br>U      | E<br>U<br>U<br>U      | E<br>U<br>L<br>U      | E<br>U<br>U<br>U      | _                     |                       | L<br>-                | G<br>U<br>-<br>L      | E<br>U<br>-<br>U      | _<br>U<br>_<br>U      | G                     | -<br>L<br>L           |   | Gelatine<br>Glucose<br>Glycerine (Glycerol)<br>Glycol  | E<br>E<br>E           | E<br>E<br>E           |                       |                       | E<br>E<br>E           | E<br>E<br>E           | Ε                     |                       | _                     | _                     |                  | E<br>E<br>G           |

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### Key: E=Excellent G=Good L=Limited U=Unsatisfactory C=Cautionary

| Motorial Handled  | P                | vc                    | PVC<br>Ble            | nd                    | Rub                   | end                   |                       |                       | E۱                    | ۷A                    | TI                    | PU               | Motorial Handlad  | P                     | vc                    | PVC<br>Ble            | nd                    | Ble                   | nd                    | LLC                   |             | E۱                    | /A                    | TP                    | υ'                    |
|---|------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Material Handled  | 70               | 150                   | 70                    |                       | emp<br>70             |                       |                       |                       |                       | 150                   | 70                    | 150              | Material Handled  | 70                    | 150                   | 70                    |                       | -                     |                       |                       | (°F)<br>150 |                       | 150                   | 70                    | 150                   |
| Glycolic Acid 30% Grease Green Liquor (Paper industry) Heptane  | E<br>E<br>E      | E<br>L                | E E G                 | E<br>G<br>E<br>U      |                       | E - E U               |                       |                       | E - E U               | -<br>-<br>-<br>U      | U<br>E<br>-<br>E      | U<br>G           | Linseed Oil Liquors (Chemical) Lubricating Oils Magnesium Carbonate Magnesium Chloride                      | EEGEE                 | E G L E E             | E                     | EGGEE                 | U                     | U<br>-                | L<br>E<br>U<br>E<br>E | U<br>G<br>U | L<br>E<br>U           | U<br>G<br>U<br>-      | E - E E E             | E<br>-<br>E<br>E<br>E |
| Hexadecanol<br>Hexane<br>Hexanol, Tertiary<br>Hydrobromic Acid 20%<br>Hydrochloric Acid 10%                               | -<br>L<br>L<br>E | - U U G G             | - L L E E             | - U U G G             | -                     | -<br>L<br>L<br>G<br>E | - EGGE                | UELGE                 | U - L G E             | U<br>-                | <u>-</u>              | -<br>-<br>U<br>U | Magnesium Hydroxide<br>Magnesium Nitrate<br>Magnesium Sulfate<br>Maleic Acid 25% Aqueous<br>Maleic Acid 50% | E E E E -             | E<br>E<br>E           | E E E E -             | E<br>E<br>E           | E<br>E<br>E           | E<br>E<br>E           | E<br>E<br>E           | E<br>E<br>E | E<br>E<br>E           | -<br>-<br>E<br>E      | G<br>E<br>E           | L<br>E<br>U           |
| Hydrochloric Acid 48%<br>Hydrofluoric Acid 4%<br>Hydrofluoric Acid 10%<br>Hydrofluoric Acid 48%<br>Hydrofluoric Acid 60%  | E<br>G<br>G<br>G | G<br>G<br>L<br>U<br>U | E G G G               | G<br>G<br>L<br>L<br>U | E<br>G<br>G<br>G      | G<br>G<br>L<br>L      | E G G G               | G<br>G<br>L<br>L      | G<br>E<br>E<br>E      | Ε                     | U<br>U<br>U<br>U<br>U | U<br>U<br>U<br>U | Maleic Acid Concentrated<br>Malic Acid<br>Mayonnaise<br>Mercuric Chloride<br>Mercuric Cyanide               | -<br>E<br>G<br>U      | –<br>E<br>L<br>U      | –<br>G                | _                     | -<br>G<br>-<br>G<br>G | –<br>G                | G<br>G                | G<br>-<br>G |                       | G<br>-<br>G<br>G      | –<br>L<br>–<br>G      | _<br>U<br>_<br>L      |
| Hydrofluorosilic Acid<br>Hydrogen<br>Hydrogen Bromide (Dry)<br>Hydrogen Chloride (Dry)<br>Hydrogen Cyanide                | G<br>C<br>-<br>C | C - C                 | G<br>C<br>-<br>C      | L<br>C<br>-<br>C      | -<br>C<br>-<br>C      | -<br>C<br>-<br>C      | -<br>C<br>-<br>-<br>C | -<br>C<br>-<br>C      | - C E E C             | -<br>E<br>E<br>C      | U<br>-<br>-<br>U      | U<br>C<br>-<br>U | Mercurous Nitrate<br>Mercury<br>Methyl Acetate<br>Methyl Alcohol<br>Methyl Bromide                          | G<br>G<br>U<br>L<br>U | G<br>G<br>U<br>U<br>U |                       |                       | G<br>G<br>G<br>-      | G                     | G<br>–                | G<br>-<br>G | G<br>U<br>E<br>U      | _<br>L<br>U<br>_<br>U | G<br>-<br>-<br>L<br>- | G<br>-<br>U<br>-      |
| Hydrogen Peroxide 3 -12%<br>Hydrogen Peroxide 30%<br>Hydrogen Peroxide 50%<br>Hydrogen Peroxide 90%<br>Hydrogen Phosphide | E<br>E<br>U<br>E | G<br>G<br>L<br>U<br>L | E<br>E<br>U<br>E      | G<br>G<br>L<br>U<br>L | G<br>G<br>L<br>U<br>G | L<br>U<br>U<br>G      | L<br>U                | L<br>U<br>U<br>G      | G<br>G<br>U<br>U<br>E | L<br>U<br>U<br>E      | G<br>G<br>L<br>U      | L<br>U<br>U      | Methyl Chloride<br>Methyl Ethyl Ketone<br>Methyl Isobutyl Ketone<br>Methyl Sulfate<br>Methyl Sulfuric Acid  | U U U E E             | U<br>U<br>U<br>G<br>E | Ε                     | UUUGE                 | U<br>L<br>G           | U<br>U<br>-           | U<br>E<br>E<br>G      | G<br>G      | L<br>–                | U<br>U<br>U<br>–<br>E | Ľ<br>-<br>E           | U<br>U<br>G<br>U      |
| Hydrogen Sulfide<br>(Aqueous Solution)<br>Hydrogen Sulfide - Dry<br>Hydrombromic Acid 20%<br>Hydroquinone                 | E<br>E<br>E      | E<br>G<br>E           | E<br>E<br>E           | E<br>E<br>G<br>E      | E<br>E<br>G<br>E      | G<br>G<br>E           | E<br>E<br>G<br>E      | G<br>G<br>E           | E<br>G<br>E           | -<br>-<br>-           | -<br>U<br>E           | –<br>U<br>E      | Methylated Spirit<br>Methylene Chloride<br>Milk<br>Mineral Oils<br>Mineral Spirits                          | –<br>U<br>E<br>G      | –<br>U<br>E<br>L      | _<br>L<br>_<br>E<br>_ | –<br>U<br>–<br>E<br>– | -<br>U<br>-<br>L      | -<br>U<br>-<br>U<br>- | –<br>U<br>E<br>L<br>E | _           | E<br>U<br>G<br>L      | G<br>U<br>L<br>U      | _                     | –<br>U<br>–<br>E<br>– |
| Hypochlorous Acid<br>Inks<br>Iodine (In Alcohol)<br>Iso-octane<br>Isopropyl Acetate                                       | E                | E<br>-<br>U<br>U<br>U | E<br>-<br>U<br>L      | E<br>-<br>U<br>U<br>- | E<br>-<br>U<br>-      | G<br>-<br>U<br>-      | E<br>E<br>U<br>-      | G<br>E<br>U<br>-      | L<br>E<br>U<br>-      | U<br>E<br>U<br>-      | L<br>-<br>U<br>-      | U<br>-<br>U<br>- | Molasses<br>Monochlorobenzene<br>Naphtha<br>Napthalene<br>Nickel Acetate                                    | E                     | E U U U E             | E<br>U<br>L<br>U<br>E | E<br>U<br>U<br>U<br>E | E<br>-<br>U<br>L<br>E | _                     | E<br>G<br>L<br>E      | L<br>U      | E<br>-<br>U<br>U<br>E | -<br>U<br>U<br>-      | E<br>-<br>G<br>-<br>E | E<br>U<br>-<br>E      |
| Isopropylalcohol<br>Jelly<br>Jet Fuels JP 3, 4, 5<br>Kerosene<br>Ketones  | E<br>U<br>U<br>U | G<br>E<br>U<br>U<br>U | E - U L U             | G<br>-<br>U<br>U<br>U | E<br>-<br>U<br>U<br>L | _<br>U<br>U           | E<br>-<br>L<br>E      | E<br>-<br>U<br>G      | E<br>-<br>U<br>L      | -<br>-<br>U<br>U      | Ε                     | –<br>L<br>G<br>L | Nickel Chloride<br>Nickel Nitrate<br>Nickel Sulphate<br>Nicotine<br>Nicotine Acid                           | EEEEE                 |                       | E<br>E<br>E<br>E      | E<br>E<br>E<br>E      | E<br>E<br>E<br>E      | Ε                     | Ε                     | E<br>E      | Е                     | -                     | E<br>E                | E<br>E<br>C<br>C      |
| Kraft Liquor (Paper industry<br>Lacquer Thinners<br>Lactic Acid 28%<br>Lard Oil<br>Lauric Acid                            | U<br>E<br>E<br>E | E U E G E             | E U E E E             |                       | E<br>G<br>E<br>G      | L<br>E                | E<br>E<br>G<br>L      | G<br>G<br>E<br>L<br>U |                       | _<br>U<br>_<br>L      | -<br>G<br>L<br>E<br>L |                  | Nitric Acid (Anhydrous)<br>Nitric Acid 10%<br>Nitric Acid 25%<br>Nitric Acid 35%<br>Nitric Acid 40%         | U<br>E<br>G<br>G      | U<br>G<br>L<br>L      | G<br>G                | L<br>L                |                       | L<br>L<br>U           | G<br>G<br>G           | G<br>G<br>U | G<br>G<br>L           | G<br>L<br>U           | U<br>U<br>U<br>U      | U<br>U<br>U           |
| Lauryl Chloride<br>Lauryl Sulfate<br>Lead Acetate<br>Lead Arsenate<br>Lead Nitrate  | E<br>E<br>E<br>E | E<br>E<br>E<br>E      | E<br>E<br>E<br>E<br>E | E<br>E<br>E<br>E      | L<br>U<br>E<br>-      | U<br>U<br>E<br>-      | L<br>U<br>E<br>-      | U<br>U<br>E<br>-      | L<br>U<br>E<br>E      | –<br>U<br>–<br>E<br>E | E<br>-<br>E<br>-      | G<br>-<br>E<br>- | Nitric Acid 50%<br>Nitric Acid 60%<br>Nitric Acid 68%<br>Nitric Acid 70%<br>Nitrobenzene                    | G<br>G<br>L<br>U<br>U | U<br>U<br>U<br>U<br>U | U                     | U<br>U                | U                     | U<br>U                | L<br>U<br>U           |             | Ū                     | Ü<br>U<br>U           | U<br>U<br>U<br>U      | U<br>U<br>U           |
| Lead Tetra-ethyl<br>Lemon Juice<br>Lime Sulfur<br>Linoleic Acid   | E<br>E<br>E      | E<br>G<br>E<br>E      | E<br>-<br>E<br>E      | E<br>-<br>E<br>E      | –<br>G<br>–           | –<br>G<br>–           | –<br>G<br>–           | –<br>G<br>–           | E<br>-<br>G<br>-      | E<br>-<br>-           | -<br>-<br>L           | -<br>-<br>U      | Nitrous Oxide Oils and Fats Oils, Petroleum Oleic Acid  | E<br>E<br>G           | E<br>G<br>G<br>L      | E<br>E                |                       | G                     | L                     | -<br>G<br>G<br>L      |             | G                     | U                     | E<br>E<br>U           | Е                     |

### Key: E=Excellent G=Good L=Limited U=Unsatisfactory C=Cautionary

| Motorial Use dis d   | PVC                                     |            | C/PU<br>lend      | Rub              |                  | LLC              | PE               | E۱                    | /A                    | TF                    | PU                    | Motovial Handlad   | P۱                    | /C                    | PVC<br>Ble            | /PU<br>nd             | Rub<br>Ble       |                       | LLD                   | PE                    | E۷                    | /Α               | TP               | U                     |
|--|---|------------|-------------------|------------------|------------------|------------------|------------------|-----------------------|-----------------------|-----------------------|-----------------------|--|-----------------------|-----------------------|-----------------------|-----------------------|------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------|------------------|-----------------------|
| Material Handled   | 70 15                                   | 0 70       |                   | emp              |                  |                  |                  |                       | 150                   | 70                    | 150                   | Material Handled   | 70                    | 150                   | 70                    |                       | -                |                       |                       | (°F)<br>150           |                       | 150              | 70 -             | 150                   |
| Oleum Orange Juice Oxalic Acid Oxygen Ozone  | U L<br>E E<br>E G<br>L L                | J U        | U G G             | U<br>-           | U<br>-           | U<br>G<br>E      | U<br>L           |                       | U<br>-<br>G<br>L<br>U |                       | U -<br>U E -          | Potassium Bromide Potassium Carbonate Potassium Chlorate Potassium Chloride Potassium Chromate 40%                                   | E<br>E<br>E<br>E      | E<br>E<br>E<br>E      | E<br>E                | E<br>E<br>E<br>E<br>E | E<br>E<br>E      | G<br>E                | E<br>E<br>E           | G<br>E<br>E           | E<br>E<br>E           | -<br>-<br>-<br>- | E<br>E<br>G<br>E | E<br>E<br>G<br>G      |
| Palmitic Acid 10%<br>Palmitic Acid 70%<br>Paraffin<br>Pentane<br>Peracetic Acid 40%  | E E L L L L L L L L L L L L L L L L L L | J L<br>i E | . U<br>: G<br>. U | G<br>G<br>-<br>- | -                | G                | L<br>U<br>L<br>G | E<br>L<br>L           | G<br>U<br>U<br>-      |                       | U<br>G<br>-<br>U      | Potassium Cuprocyanide<br>Potassium Cyanide<br>Potassium Dichromate 40%<br>Potassium Ferricyanide<br>Potassium Fluoride              | E<br>C<br>E<br>E      | E<br>C<br>E<br>E      | E<br>C<br>E<br>E<br>E | E<br>E                | E C E E E        | E<br>C<br>E<br>E<br>E | Ε                     | E<br>E                | _                     | <u>-</u>         | G<br>E           | –<br>C<br>G<br>E<br>G |
| Perchlorethylene<br>Perchloric Acid 10%<br>Perchloric Acid 70%<br>Petrol<br>Petroleum Ether                                | U L<br>G L<br>L U<br>U L                | . G        | i L<br>. U        | _                | U<br>G<br>L<br>U |                  | -<br>G<br>L<br>- | -<br>G<br>G<br>U<br>U | -<br>G<br>-<br>U<br>U | -<br>U<br>U<br>-      | _<br>U<br>U<br>_      | Potassium Hydroxide 10%<br>Potassium Hydroxide 20%<br>Potassium Hydroxide 35%<br>Potassium Hydroxide Conc.<br>Potassium Hypochlorite |                       | E<br>E<br>E<br>-<br>L | Ε                     | E<br>E<br>-           | G<br>–           | L<br>-                |                       | G<br>–                | E<br>G<br>E<br>E      | –<br>L           | Ū<br>U<br>–      | U<br>U<br>U<br>–<br>U |
| Phenol Phenylhydrazine Phenylhydrazine Hydrochoride  | U L<br>U L                              | J Ū        | Ü                 | Ĺ                | U                | U<br>L<br>L      | U<br>U<br>U      | U<br>-                | U<br>-                | U<br>-<br>-           | U<br>-                | Potassium Nitrate Potassium Perborate Potassium Perchlorite Potassium Potassium  | E E E                 | E E E                 | Ε                     | E                     | G<br>G           | L<br>G                | G<br>G                | G                     | E<br>E<br>G           | E<br>-           | E<br>G           | E<br>E<br>L           |
| Phosgene (Gas)   | CC                                      |            | C                 | -                | -                | -                | -                | С                     | U                     | -                     | -                     | Permanganate 10%   | G                     | G                     | E                     | E                     | E                | E                     | E                     | E                     | U                     | U                | G                | L                     |
| Phosgene (Liquid)<br>Phosphoric Acid 0-25%<br>Phosphoric Acid 25-50%<br>Phosphoric Acid 50-90%<br>Phosphorus (Yellow)      | U L<br>E G<br>E G<br>G L                | i E        | G                 | E<br>E<br>G<br>L |                  |                  | G<br>G<br>L<br>L | E<br>E<br>E<br>U      |                       | -                     | _<br>U<br>U<br>U      | Potassium Persulfate<br>Potassium Phosphate<br>Potassium Sulfate<br>Potassium Sulfide<br>Potassium Thiosulfate                       | E<br>E<br>E<br>E      | E                     | E                     | E<br>E<br>E<br>E      | E<br>E<br>E<br>E | E<br>E<br>E<br>E      | E<br>E<br>E<br>E      | Ε                     | E<br>E<br>E<br>E      | E<br>-<br>-      | –<br>E<br>E      | E<br>E<br>E<br>E      |
| Phosphorus Pentoxide<br>Phosphorus Trichloride<br>Photographic Developers<br>Photographic Emulsions<br>Photographic Fixers |   | J U<br>J L | U                 | L<br>-<br>-      |                  | G<br>L<br>E<br>E | L<br>U<br>E<br>E | G<br>L<br>E<br>E      | L<br>U<br>E<br>E      | -<br>L<br>-           | -<br>-<br>-<br>-      | Power Steering Fluid<br>Propane<br>Propargyl Alcohol<br>Propyl Alcohol<br>Propylene Dichloride                                       | E C E E U             | LCELU                 | E C E E U             | Ε                     | G<br>E           | G<br>E                |                       | -<br>U<br>G<br>E<br>U | –<br>U<br>E<br>E<br>U | E<br>-           | C<br>-<br>G      | E<br>C<br>-<br>L<br>U |
| Picric Acid Pitch Plating Solutions Brass Cadmium  | U L<br>G L<br>E E                       | . G        | i L               | G<br>-<br>G      | U<br>-<br>G      | G<br>E<br>G      | U<br>G<br>G      | G<br>-<br>L<br>L      | L<br>-<br>-           | U<br>-<br>E<br>E      | U<br>-<br>E<br>E      | Propylene Glycol<br>Prune Juice<br>Ritchfield "A" Weed Killer<br>Salicylic Acid<br>Salt Water  | –<br>E<br>E<br>–<br>E | -<br>E<br>L<br>-<br>E | -<br>E<br>-<br>E      | –<br>G<br>–<br>E      | -<br>-<br>-<br>E | -<br>-<br>-<br>E      | -<br>-<br>-<br>E      | -<br>-<br>-<br>E      | E<br>-<br>E<br>E      | E<br>-<br>E<br>E | -<br>-<br>-<br>E | -<br>-<br>-<br>L      |
| Chromium<br>Copper<br>Gold<br>Judium<br>Lead   | G G<br>E E<br>E E<br>E E                | E          | E<br>E<br>E       | U G G G          | G<br>G           | G<br>G           | U<br>G<br>G<br>G | U<br>L<br>L<br>L      | U<br>-<br>-<br>-      | G<br>E<br>E<br>E      | G<br>E<br>E<br>E<br>E | Selenic Acid<br>Shortening<br>Silicic Acid<br>Silicone Fluids<br>Silver Cyanide  | E<br>G<br>E<br>-<br>E | G<br>L<br>E<br>-<br>E | E<br>-<br>E<br>-<br>E | G<br>-<br>E<br>-<br>E |                  | L<br>E<br>E           | G<br>E<br>E<br>-<br>E | L<br>E<br>E           | G<br>E<br>E<br>E<br>E | L<br>E<br>E      | U<br>–           | U<br>-<br>U<br>-<br>E |
| Nickel<br>Rhodium<br>Silver<br>Tin<br>Zinc   | E E E E E E E                           | E E        | E<br>E<br>E       | G<br>G<br>G<br>G | G<br>G           | G<br>G           | G<br>G<br>G<br>G |                       | -<br>-<br>-<br>-      | E<br>E<br>E<br>E      | E<br>E<br>E<br>E<br>E | Silver Nitrate<br>Silver Plating Solutions<br>Soap Solution<br>Sodium Acetate<br>Sodium Acid Sulfate                                 | E<br>E<br>E<br>E      | E<br>G<br>E<br>E      | Ε                     | E<br>G<br>G<br>E<br>E | E<br>E           | E<br>G<br>E<br>E      |                       | E<br>G<br>L<br>E<br>E | E<br>E<br>G<br>E<br>E | -<br>L<br>-      | E<br>G<br>E      | E<br>U<br>E<br>E      |
| Potable Water Potassium Acid Sulfate Potassium Antimonate Potassium Bicarbonate Potassium Bichromate                       | E G<br>E E<br>E E<br>E E                | E          | E<br>E            | _<br>E<br>E<br>E | -<br>G<br>E<br>E | E<br>E<br>E<br>E | E<br>G<br>E<br>E | E<br>G<br>E<br>E<br>E | G<br>-<br>-<br>-      | -<br>E<br>E<br>E<br>E | _<br>E<br>E<br>E      | Sodium Antimonate<br>Sodium Arsenite<br>Sodium Benzoate<br>Sodium Bicarbonate<br>Sodium Bisulfate                                    | E<br>E<br>E<br>E      | E<br>G<br>E<br>E      |                       | E<br>E<br>E<br>E      | E<br>E<br>E<br>E | E<br>E<br>E<br>E      |                       | Ε                     | E<br>E<br>E<br>E      | -<br>-<br>-<br>- | E<br>E<br>E      | E<br>E<br>E<br>E      |
| Potassium Bisulfite<br>Potassium Bisulphate<br>Potassium Borate 1%<br>Potassium Bromate 10%                                | E E E                                   |            | E<br>-<br>E<br>E  | E<br>-<br>E<br>E | E<br>E<br>G      | E<br>E<br>E      | E<br>E<br>G      | E<br>E<br>E           | -<br>-<br>-           | E<br>-<br>E<br>E      | E<br>E<br>E           | Sodium Bisulfite<br>Sodium Bromide<br>Sodium Carbonate<br>(Soda Ash)   | E<br>E                | E<br>E                | E<br>E                |                       | E<br>E           | E<br>E                | E<br>E                | E<br>E                | E<br>E                |                  | Ε                | E<br>G<br>E           |

#### Key: E=Excellent G=Good L=Limited U=Unsatisfactory C=Cautionary

| Material Handled  | P                | vc                    |                  | end                   | Rub              | end                   |                       | DPE              | E'               | VA                    | TI                    | PU                    | Material Handled   | P۱                    | /C                    | PVC                   | nd                    | Rub              | nd               | LLC              |                  | E۱          | /A               | TF                    | U                |
|---|------------------|-----------------------|------------------|-----------------------|------------------|-----------------------|-----------------------|------------------|------------------|-----------------------|-----------------------|-----------------------|--|-----------------------|-----------------------|-----------------------|-----------------------|------------------|------------------|------------------|------------------|-------------|------------------|-----------------------|------------------|
| - Wateriai Fiandieu   | 70               | 150                   | 70               |                       | emp<br>70        |                       |                       | -                | -                | 150                   | 70                    | 150                   | wateriai riandied  | 70                    | 150                   | 70                    |                       |                  |                  |                  | (°F)<br>150      |             | 150              | 70                    | 150              |
| Sodium Chlorate Sodium Chloride Sodium Cyanide Sodium Dichromate Sodium Ferricyanide  | G<br>E<br>E<br>E | L<br>E                | G                | L<br>E<br>G<br>E      | E                | E<br>E<br>E<br>E      | EEEE                  | E<br>E<br>E<br>E | E<br>E<br>E      | -<br>-<br>-<br>-      | G                     | G<br>G<br>E<br>G<br>E | Titanium Trichloride Toluol or Toluene Tomato Juice Transformer Oil Transmission Fluid | -<br>U<br>E<br>-<br>E | -<br>U<br>E<br>-<br>L | _                     | _                     | -<br>U<br>-<br>- | _<br>U           | _                | -<br>G<br>L      | U           | U<br>U<br>U      | _                     | –<br>U<br>–<br>E |
| Sodium Ferrocyanide<br>Sodium Fluoride<br>Sodium Hydroxide 10%<br>Sodium Hydroxide 35%<br>Sodium Hydroxide 50%                      | E<br>E<br>E<br>G | E<br>E<br>G<br>L      | E<br>E<br>E      | E<br>E<br>E<br>E      | E<br>E<br>E<br>E | E<br>E<br>E<br>E      | E<br>E<br>E<br>E      |                  | E                | -<br>-<br>-<br>-      | E<br>G<br>L           | E<br>G<br>L<br>U      | Trichloroethylene  | U<br>U<br>U<br>U<br>L | U<br>U<br>U<br>U<br>U | U<br>U<br>L<br>U<br>G |                       | U<br>L           | U<br>L           | G<br>L           | -<br>L<br>L<br>L | U           | U                | L                     | –<br>U<br>U      |
| Sodium Hypochlorite<br>Sodium Nitrate<br>Sodium Nitrite<br>Sodium Phosphate-Acid<br>Sodium Silicate                                 | E<br>E<br>G<br>E | E<br>E<br>G<br>E      | E<br>E<br>G<br>E | E<br>E<br>G<br>E      | E E E E          | E<br>E<br>E<br>E<br>E | EEEE                  | E<br>E<br>E<br>E | Ē                | -<br>-<br>-<br>-      | U<br>E<br>E<br>U<br>E | U<br>E<br>U<br>E      | Triethylamine<br>Trimethyl Propane<br>Trisodium Phosphate<br>Turpentine<br>Urea        | G<br>L<br>E<br>L<br>E | L<br>U<br>E<br>U<br>E | G<br>L<br>E<br>G<br>E | L<br>U<br>E<br>L<br>E |                  | –<br>E<br>U<br>E | –<br>E<br>G<br>E |                  |             | -<br>-<br>-<br>- |                       | –<br>E<br>G<br>E |
| Sodium Sulfate<br>Sodium Sulfide<br>Sodium Sulfite<br>Sodium Thisulfate (Hypo)<br>Soft Drinks                                       |                  | E<br>E<br>E<br>G      | E<br>E<br>E<br>- | E<br>E<br>E<br>E      | Ε                | E<br>E<br>E<br>E      |                       |                  | Ē                | -<br>-<br>-<br>L      | E<br>E<br>E           | E<br>E<br>G<br>-      | Varsol   | E<br>U<br>-<br>G<br>E | _                     | E<br>U<br>-<br>G      | U<br>-                | G<br>-<br>-      | L<br>-<br>-      | E<br>-           | L<br>G<br>–      | U<br>-<br>U | –<br>U           | E<br>E<br>-<br>G      | -<br>-           |
| Soya Oil<br>Soybean Oil<br>Stannic Chloride<br>Stannous Chloride<br>Starch  | E<br>G<br>E<br>E | G<br>L<br>E<br>G      | -<br>E<br>E      | –<br>E<br>G           | -<br>E<br>E      | -<br>E<br>E           | -<br>E<br>E           | -<br>E<br>E      | -<br>E<br>E<br>E | -<br>-<br>-<br>E      | -<br>E<br>E           | –<br>G<br>G           | Vinyl Chloride<br>Water-Acid Mine Water<br>Water-Distilled                             | U<br>U<br>E<br>E      | U<br>U<br>E<br>E<br>E | U<br>U<br>E<br>E<br>E | U<br>U<br>E<br>E<br>E | –<br>Е<br>Е      | Ε                | –<br>Е<br>Е      | –<br>Е<br>Е      | –<br>Е<br>Е | -<br>-<br>-      | -<br>G<br>G           |                  |
| Stearic Acid<br>Stoddard Solvent<br>Styrene<br>Sucrose<br>Sulfur  | L<br>U<br>G      | L<br>U<br>U<br>-<br>G |                  | L<br>U<br>G           | G<br>-<br>-      | E<br>L<br>-<br>E      | E<br>G<br>-<br>E      | E<br>L<br>-<br>E | E<br>L<br>E<br>E | -<br>U<br>-<br>E<br>- |                       | U<br>U<br>-<br>-      | Whey<br>Whiskey  | E<br>L<br>E<br>/)     | E<br>G<br>U<br>E<br>E | E<br>-<br>E<br>E      | –<br>–<br>E           | -<br>-           | -<br>-           | G<br>E           |                  | G<br>–      | L<br>-           | G<br>-<br>-<br>E<br>- | <u>-</u>         |
| Sulfuric Acid 0-10%<br>Sulfuric Acid 10-40%<br>Sulfuric Acid 50-60%<br>Sulfuric Acid 70%<br>Sulfuric Acid 95%                       | EEEU             |                       |                  | G<br>G                | G<br>G           | G<br>G<br>L<br>U<br>U | E<br>G<br>G<br>L<br>U | G                |                  | -<br>G<br>L<br>U      | U<br>U<br>U<br>U      | U<br>U<br>U<br>U<br>U | - Wines Xylene or Xylol Zinc Chloride Zinc Chromate Zinc Cyanide                       | GUEEE                 | LUEEE                 | - L E E E             | - U E E E             | - U E E E        | -<br>U<br>E<br>E | E G E E E        | E L E E E        | - U E E E   | _<br>U<br>_<br>_ | -<br>G<br>E<br>E      | -<br>L<br>E<br>E |
| Sulfuric Acid 95% to Fuming<br>Sulfurous Acid<br>Sulphur Dioxide - Liquid<br>Sulphur Dioxide Gas - Dry<br>Sulphur Dioxide Gas - Wet | E<br>L<br>E      |                       | LELEL            | U                     | U<br>G           | U<br>G                | UGUGG                 | U                | ULUEE            | U U U G L             | U<br>-<br>-           | U<br>U<br>-<br>-      | Zinc Nitrate<br>Zinc Sulfate   | E<br>E                | Ε                     | Ε                     |                       |                  |                  |                  | E                |             | -<br>-           |                       | Е                |
| Sulphur Trioxide Sulphurous Acid 10%  | E<br>-           | G<br>-                | E<br>-           | G<br>-                | U<br>-           |                       |                       |                  | U<br>E           | U<br>E                | <u>-</u>              | _                     | Mixtures of Acids:<br>Nitric 15%, Hydrofluoric 4%                                      | Ε                     | G                     | Ε                     | G                     | -                | -                | -                | -                | -           | -                | U                     | U                |
| Sulphurous Acid 30%<br>Tallow<br>Tannic Acid  | –<br>E           | –<br>E                | –<br>E           | –<br>E                | –<br>E           | _<br>E                | _<br>E                | –<br>E           | U<br>E<br>E      | U<br>U<br>E           | _<br>_<br>L           | _<br>U                | Sodium Dichromate 13%,<br>Nitric Acid 16%, Water                                       | Ε                     | G                     | E                     | G                     | Ε                | Ε                | Ε                | E                | Ε           | Ε                | Ε                     | L                |
| Tanning Extracts Tanning Liquors Tartaric Acid Tea (Brewed) Tetraethyl Lead   | E<br>E<br>G      | E<br>E<br>G<br>L      | E<br>E<br>G      | –<br>E<br>E<br>–<br>G | -<br>G<br>E<br>- | _<br>L<br>E<br>-      |                       | L<br>E<br>G      | E<br>L<br>E<br>G | E<br>-<br>L<br>-      | -<br>L<br>-<br>G      | –<br>U<br>–<br>G      |  |                       |                       |                       |                       |                  |                  |                  |                  |             |                  |                       |                  |
| Tetrahydrofurane<br>Thionyl Chloride<br>Tin Chloride<br>Titanium Tertachloride  | U<br>U<br>E<br>E |                       | Ē                | Ε                     | U<br>U<br>-      | _                     | _                     | _                | U<br>U<br>-      | U<br>U<br>-           | U<br>U<br>E<br>L      | U<br>U<br>E<br>U      |  |                       |                       |                       |                       |                  |                  |                  |                  |             |                  |                       |                  |

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