

# SAFETY DATA SHEET

#### 1. Identification

| Product identifier              | Pure Reflections NR Fast Act           | tiv            |
|---------------------------------|--|----------------|
| Other means of identification   |  |                |
| Product Code                    | PR70-QT                                |                |
| Recommended use                 | Automotive Refinish Activator/Hardener |                |
| Manufacturer/Importer/Supplier/ | Distributor information                |                |
| Manufacturer                    |  |                |
| Company name                    | Pure Reflections                       |                |
| Address                         | A division of IAMG/Internationa        | , , ,          |
|                                 | 1505 N. Hayden Road, Ste. 11           | 1              |
|                                 | Scottsdale, Arizona 85257              |                |
|                                 | United States                          |                |
| Telephone                       | INFORMATION                            | 1-87-REFINISH  |
| E-mail                          | l.fields@iamgaz.com                    |                |
| Contact person                  | Lloyd Fields                           |                |
| Emergency phone number          | CHEMTREC                               | 1-800-424-9300 |
|                                 |  |                |

#### 2. Hazard(s) identification

| Physical hazards      | Flammable liquids                                      | Category 2  |
|-----------------------|--|-------------|
| Health hazards        | Acute toxicity, oral                                   | Category 4  |
|                       | Acute toxicity, dermal                                 | Category 4  |
|                       | Acute toxicity, inhalation                             | Category 3  |
|                       | Skin corrosion/irritation                              | Category 2  |
|                       | Serious eye damage/eye irritation                      | Category 2A |
|                       | Sensitization, respiratory                             | Category 1  |
|                       | Sensitization, skin                                    | Category 1  |
|                       | Germ cell mutagenicity                                 | Category 1B |
|                       | Carcinogenicity  | Category 1B |
|                       | Reproductive toxicity (the unborn child)               | Category 2  |
|                       | Specific target organ toxicity, repeated exposure      | Category 1  |
| Environmental hazards | Hazardous to the aquatic environment, acute hazard     | Category 2  |
|                       | Hazardous to the aquatic environment, long-term hazard | Category 2  |
| OSHA defined hazards  | Not classified.  |             |
| Label elements        |  |             |



Danger

Hazard statement

Signal word

Highly flammable liquid and vapor. Harmful if swallowed. Harmful in contact with skin. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. Toxic if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause genetic defects. May cause cancer. Suspected of damaging the unborn child. Causes damage to organs through prolonged or repeated exposure. Toxic to aquatic life. Toxic to aquatic life with long lasting effects.

| Precautionary statement                      |  |
|--|--|
| Prevention                                   | Obtain special instructions before use. Do not handle until all safety precautions have been read<br>and understood. Keep away from heat/sparks/open flames/hot surfaces No smoking. Keep<br>container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof<br>electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary<br>measures against static discharge. Do not breathe mist or vapor. Wash thoroughly after handling.<br>Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area.<br>Contaminated work clothing must not be allowed out of the workplace. Avoid release to the<br>environment. Wear protective gloves/protective clothing/eye protection/face protection. In case of<br>inadequate ventilation wear respiratory protection. |
| Response                                     | If swallowed: Call a poison center/doctor if you feel unwell. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If exposed or concerned: Get medical advice/attention. Call a poison center/doctor if you feel unwell. Rinse mouth. If skin irritation or rash occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. If experiencing respiratory symptoms: Call a poison center/doctor. Take off contaminated clothing and wash before reuse. In case of fire: Use appropriate media to extinguish. Collect spillage.                                |
| Storage                                      | Store in a well-ventilated place. Keep container tightly closed. Store in a well-ventilated place. Keep cool. Store locked up.   |
| Disposal                                     | Dispose of contents/container in accordance with local/regional/national/international regulations.  |
| Hazard(s) not otherwise<br>classified (HNOC) | Static accumulating flammable liquid can become electrostatically charged even in bonded and grounded equipment. Sparks may ignite liquid and vapor. May cause flash fire or explosion.  |
| Supplemental information                     | 30.94% of the mixture consists of component(s) of unknown acute oral toxicity. 40.52% of the mixture consists of component(s) of unknown acute dermal toxicity. 24.4% of the mixture consists of component(s) of unknown acute inhalation toxicity. 44.78% of the mixture consists of component(s) of unknown acute hazards to the aquatic environment. 44.56% of the mixture consists of component(s) of unknown long-term hazards to the aquatic environment.  |

#### 3. Composition/information on ingredients

| ixtures                              |                          |            |           |
|--------------------------------------|--------------------------|------------|-----------|
| Chemical name                        | Common name and synonyms | CAS number | %         |
| Xylene                               |                          | 1330-20-7  | 30 to <40 |
| Ethyl benzene                        |                          | 100-41-4   | 10 to <20 |
| homopolymer of HDI                   |                          | 28182-81-2 | 10 to <2  |
| 4-Methyl-2-pentanone                 |                          | 108-10-1   | 5 to <10  |
| 1-Methoxy-2-propyl acetate           |                          | 108-65-6   | 1 to <5   |
| 2,6-Dimethyl-4-heptanone             |                          | 108-83-8   | 1 to <5   |
| Ethyl 3-ethoxypropionate             |                          | 763-69-9   | 1 to <5   |
| n-butyl acetate                      |                          | 123-86-4   | 1 to <5   |
| 1,2-Dimethybenzene                   |                          | 95-47-6    | 0.1 to <  |
| Cumene                               |                          | 98-82-8    | 0.1 to <  |
| light aromatic solvent naphtha       |                          | 64742-95-6 | 0.1 to <  |
| Other components below reportable le | evels                    |            | 10 to <2  |

\*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

# 4. First-aid measuresInhalationRemove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or<br/>artificial respiration if needed. Do not use mouth-to-mouth method if victim inhaled the substance.<br/>Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other<br/>proper respiratory medical device. Call a POISON CENTER or doctor/physician.Skin contactRemove contaminated clothing immediately and wash skin with soap and water. Get medical<br/>advice/attention if you feel unwell. In case of eczema or other skin disorders: Seek medical<br/>attention and take along these instructions. Wash contaminated clothing before reuse.Eye contactImmediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if<br/>present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

| Ingestion  | Rinse mouth. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Get medical advice/attention if you feel unwell.  |
|--|--|
| Most important<br>symptoms/effects, acute and<br>delayed                     | Headache. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Difficulty in breathing. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash. Prolonged exposure may cause chronic effects.   |
| Indication of immediate<br>medical attention and special<br>treatment needed | Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim warm. Keep victim under observation. Symptoms may be delayed.  |
| General information  | Take off all contaminated clothing immediately. IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse.   |
| 5. Fire-fighting measures  |  |
| Suitable extinguishing media   | Water fog. Foam. Carbon dioxide (CO2). Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.  |
| Unsuitable extinguishing media   | Water. Do not use water jet as an extinguisher, as this will spread the fire.  |
| Specific hazards arising from the chemical                                   | Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. This product is a poor conductor of electricity and can become electrostatically charged. If sufficient charge is accumulated, ignition of flammable mixtures can occur. To reduce potential for static discharge, use proper bonding and grounding procedures. This liquid may accumulate static electricity when filling properly grounded containers. Static electricity accumulation may be significantly increased by the presence of small quantities of water or other contaminants. Material will float and may ignite on surface of water. During fire, gases hazardous to health may be formed.                               |
| Special protective equipment<br>and precautions for firefighters             | Self-contained breathing apparatus and full protective clothing must be worn in case of fire.  |
| Fire fighting<br>equipment/instructions                                      | In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.   |
| Specific methods   | Use standard firefighting procedures and consider the hazards of other involved materials.   |
| General fire hazards   | Highly flammable liquid and vapor.   |
| 6. Accidental release meas   | sures  |
| Personal precautions,<br>protective equipment and<br>emergency procedures    | Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Use appropriate containment to avoid environmental contamination. Transfer by mechanical means such as vacuum truck to a salvage tank or other suitable container for recovery or safe disposal. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS. |
| Methods and materials for containment and cleaning up                        | Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Take precautionary measures against static discharge. Use only non-sparking tools. Keep combustibles (wood, paper, oil, etc.) away from spilled material. This material is classified as a water pollutant under the Clean Water Act and should be prevented from contaminating soil or from entering sewage and drainage systems which lead to waterways.   |
|  | Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.  |

Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

**Environmental precautions** Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground. Inform appropriate managerial or supervisory personnel of all environmental releases. Use appropriate containment to avoid environmental contamination.

# 7. Handling and storage

| Precautions for safe handling                                   | Obtain special instructions before use. Do not handle until all safety precautions have been read<br>and understood. Do not handle, store or open near an open flame, sources of heat or sources of<br>ignition. Protect material from direct sunlight. Explosion-proof general and local exhaust ventilation.<br>Minimize fire risks from flammable and combustible materials (including combustible dust and<br>static accumulating liquids) or dangerous reactions with incompatible materials. Handling<br>operations that can promote accumulation of static charges include but are not limited to: mixing,<br>filtering, pumping at high flow rates, splash filling, creating mists or sprays, tank and container<br>filling, tank cleaning, sampling, gauging, switch loading, vacuum truck operations. Take<br>precautionary measures against static discharges. All equipment used when handling the product<br>must be grounded. Use non-sparking tools and explosion-proof equipment. Do not breathe mist or<br>vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Do not taste or<br>swallow. When using, do not eat, drink or smoke. Pregnant or breastfeeding women must not<br>handle this product. Should be handled in closed systems, if possible. Use only outdoors or in a<br>well-ventilated area. Wear appropriate personal protective equipment. Wash hands thoroughly<br>after handling. Avoid release to the environment. Wash contaminated clothing before reuse.<br>Observe good industrial hygiene practices. |
|---|---|
|   | For additional information on equipment bonding and grounding, refer to the Canadian Electrical Code in Canada, (CSA C22.1), or the American Petroleum Institute (API) Recommended Practice 2003, "Protection Against Ignitions Arising out of Static, Lightning, and Stray Currents" or National Fire Protection Association (NFPA) 77, "Recommended Practice on Static Electricity" or National Fire Protection Association (NFPA) 70, "National Electrical Code".  |
| Conditions for safe storage,<br>including any incompatibilities | Store locked up. Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Eliminate sources of ignition. Avoid spark promoters. Ground/bond container and equipment. These alone may be insufficient to remove static electricity. Store in a cool, dry place out of direct sunlight. Store in original tightly closed container. Store in a well-ventilated place. Keep in an area equipped with sprinklers. Store away from incompatible materials (see Section 10 of the SDS).  |

#### 8. Exposure controls/personal protection

#### **Occupational exposure limits**

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

| Components                                 | Туре | ,<br>Value |  |
|--|------|------------|--|
| 1,2-Dimethybenzene (CAS<br>95-47-6)        | PEL  | 435 mg/m3  |  |
|  |      | 100 ppm    |  |
| 2,6-Dimethyl-4-heptanone<br>(CAS 108-83-8) | PEL  | 290 mg/m3  |  |
|  |      | 50 ppm     |  |
| 4-Methyl-2-pentanone (CAS<br>108-10-1)     | PEL  | 410 mg/m3  |  |
|  |      | 100 ppm    |  |
| Cumene (CAS 98-82-8)                       | PEL  | 245 mg/m3  |  |
|  |      | 50 ppm     |  |
| Ethyl benzene (CAS<br>100-41-4)            | PEL  | 435 mg/m3  |  |
|  |      | 100 ppm    |  |
| n-butyl acetate (CAS<br>123-86-4)          | PEL  | 710 mg/m3  |  |
|  |      | 150 ppm    |  |
| Xylene (CAS 1330-20-7)                     | PEL  | 435 mg/m3  |  |
|  |      | 100 ppm    |  |
| US. ACGIH Threshold Limit Values           |      |            |  |
| Components                                 | Туре | Value      |  |
| 1,2-Dimethybenzene (CAS<br>95-47-6)        | STEL | 150 ppm    |  |
|  | TWA  | 100 ppm    |  |
| 2,6-Dimethyl-4-heptanone<br>(CAS 108-83-8) | TWA  | 25 ppm     |  |
| 4-Methyl-2-pentanone (CAS 108-10-1)        | STEL | 75 ppm     |  |

| Components  | iit Values<br>Type  | •  | Val  | ue            |  |
|---|---|--|--|---------------|--|
|   | -   |  |  |               |  |
|   | TWA   |  |  | opm           |  |
| Cumene (CAS 98-82-8)  | TWA   |  |  | opm           |  |
| Ethyl benzene (CAS<br>100-41-4)   | TWA   | L. C.  | 20   | opm           |  |
| n-butyl acetate (CAS  | STEL  |  | 200  | ppm           |  |
| 123-86-4)   | SIEL  | -  | 200  | ppin          |  |
| 120 00 4)   | TWA   |  | 150  | ppm           |  |
| Xylene (CAS 1330-20-7)  | STEL  |  |  | ppm           |  |
|   | TWA   |  |  | ppm           |  |
|   |   |  |  | P             |  |
| US. NIOSH: Pocket Guide<br>Components   | Type  |  | Val  | 10            |  |
| -   |   |  |  |               |  |
| 1,2-Dimethybenzene (CAS   | STEL  | -  | 655  | mg/m3         |  |
| 95-47-6)  |   |  | 150  |               |  |
|   | τ\Λ/Λ   |  |  | ppm           |  |
|   | TWA   | 1  |  | mg/m3         |  |
| 2.6 Dimethyl 4 hentenene  | τ\Λ/Λ   |  |  | ppm           |  |
| 2,6-Dimethyl-4-heptanone<br>(CAS 108-83-8)  | TWA   |  | 150  | mg/m3         |  |
|   |   |  | 25   | opm           |  |
| 4-Methyl-2-pentanone (CAS   | S STEL  | _  |  | mg/m3         |  |
| 108-10-1)   |   |  |  | -             |  |
|   |   |  | 75   | opm           |  |
|   | TWA   | L Contraction of the second seco | 205  | mg/m3         |  |
|   |   |  | 50   | opm           |  |
| Cumene (CAS 98-82-8)  | TWA   |  | 245  | mg/m3         |  |
|   |   |  | 50   | opm           |  |
| Ethyl benzene (CAS  | STEL  | _  |  | mg/m3         |  |
| 100-41-4)   |   |  |  |               |  |
|   |   |  |  | ppm           |  |
|   | TWA   | L Contraction of the second seco |  | mg/m3         |  |
|   |   |  |  | ppm           |  |
| n-butyl acetate (CAS  | STEL  | -  | 950  | mg/m3         |  |
| 123-86-4)   |   |  |  |               |  |
|   |   |  |  | ppm           |  |
|   | TWA   | L Contraction of the second seco |  | mg/m3         |  |
|   |   |  | 150  | ppm           |  |
| US. Workplace Environme   |   | -  |  |               |  |
| Components  | Туре  |  | Val  | ue            |  |
| 1-Methoxy-2-propyl acetate  | TWA   |  | 50   | opm           |  |
| (CAS 108-65-6)  |   |  |  |               |  |
|   |   |  |  |               |  |
| ogical limit values   |   |  |  |               |  |
| -   | re Indices  |  |  |               |  |
| ACGIH Biological Exposu   | re Indices<br>Value   | Determinant  | Specimen   | Sampling Time |  |
| ACGIH Biological Exposu<br>Components   | Value   |  |  | Sampling Time |  |
| ACGIH Biological Exposu<br>Components<br>1,2-Dimethybenzene (CAS  | Value   | Methylhippuric   | Creatinine in  |               |  |
| ogical limit values<br>ACGIH Biological Exposu<br>Components<br>1,2-Dimethybenzene (CAS<br>95-47-6)<br>4-Methyl-2-pentanone (CAS  | Value<br>1.5 g/g  | Methylhippuric acids   | Creatinine in urine  |               |  |
| ACGIH Biological Exposu<br>Components<br>1,2-Dimethybenzene (CAS<br>95-47-6)<br>4-Methyl-2-pentanone (CAS   | Value<br>1.5 g/g  | Methylhippuric   | Creatinine in  |               |  |
| ACGIH Biological Exposu<br>Components<br>1,2-Dimethybenzene (CAS<br>95-47-6)<br>4-Methyl-2-pentanone (CAS<br>108-10-1)<br>Ethyl benzene (CAS  | Value<br>1.5 g/g  | Methylhippuric<br>acids<br>Methyl isobutyl<br>ketone<br>Sum of   | Creatinine in urine  |               |  |
| ACGIH Biological Exposu<br>Components<br>1,2-Dimethybenzene (CAS  | Value<br>1.5 g/g<br>S1 mg/l   | Methylhippuric<br>acids<br>Methyl isobutyl<br>ketone<br>Sum of<br>mandelic acid  | Creatinine in<br>urine<br>Urine  |               |  |
| ACGIH Biological Exposu<br>Components<br>1,2-Dimethybenzene (CAS<br>95-47-6)<br>4-Methyl-2-pentanone (CAS<br>108-10-1)<br>Ethyl benzene (CAS  | Value<br>1.5 g/g<br>S1 mg/l   | Methylhippuric<br>acids<br>Methyl isobutyl<br>ketone<br>Sum of<br>mandelic acid<br>and   | Creatinine in<br>urine<br>Urine<br>Creatinine in                           |               |  |
| ACGIH Biological Exposu<br>Components<br>1,2-Dimethybenzene (CAS<br>95-47-6)<br>4-Methyl-2-pentanone (CAS<br>108-10-1)<br>Ethyl benzene (CAS  | Value<br>1.5 g/g<br>S1 mg/l   | Methylhippuric<br>acids<br>Methyl isobutyl<br>ketone<br>Sum of<br>mandelic acid<br>and<br>phenylglyoxylic  | Creatinine in<br>urine<br>Urine<br>Creatinine in                           |               |  |
| ACGIH Biological Exposu<br>Components<br>1,2-Dimethybenzene (CAS<br>95-47-6)<br>4-Methyl-2-pentanone (CAS<br>108-10-1)<br>Ethyl benzene (CAS<br>100-41-4)   | Value<br>1.5 g/g<br>51 mg/l<br>0.15 g/g                                       | Methylhippuric<br>acids<br>Methyl isobutyl<br>ketone<br>Sum of<br>mandelic acid<br>and<br>phenylglyoxylic<br>acid  | Creatinine in<br>urine<br>Urine<br>Creatinine in<br>urine                  | *             |  |
| ACGIH Biological Exposu<br>Components<br>1,2-Dimethybenzene (CAS<br>95-47-6)<br>4-Methyl-2-pentanone (CAS<br>108-10-1)<br>Ethyl benzene (CAS<br>100-41-4)   | Value<br>1.5 g/g<br>S1 mg/l   | Methylhippuric<br>acids<br>Methyl isobutyl<br>ketone<br>Sum of<br>mandelic acid<br>and<br>phenylglyoxylic<br>acid<br>Methylhippuric  | Creatinine in<br>urine<br>Urine<br>Creatinine in<br>urine<br>Creatinine in |               |  |
| ACGIH Biological Exposu<br>Components<br>1,2-Dimethybenzene (CAS<br>95-47-6)<br>4-Methyl-2-pentanone (CAS<br>108-10-1)<br>Ethyl benzene (CAS<br>100-41-4)<br>Xylene (CAS 1330-20-7)                                   | Value<br>1.5 g/g<br>5.1 mg/l<br>0.15 g/g<br>1.5 g/g                           | Methylhippuric<br>acids<br>Methyl isobutyl<br>ketone<br>Sum of<br>mandelic acid<br>and<br>phenylglyoxylic<br>acid<br>Methylhippuric<br>acids   | Creatinine in<br>urine<br>Urine<br>Creatinine in<br>urine                  | *             |  |
| ACGIH Biological Exposu<br>Components<br>1,2-Dimethybenzene (CAS<br>95-47-6)<br>4-Methyl-2-pentanone (CAS<br>108-10-1)<br>Ethyl benzene (CAS<br>100-41-4)<br>Xylene (CAS 1330-20-7)<br>* - For sampling details, plea | Value<br>1.5 g/g<br>5.1 mg/l<br>0.15 g/g<br>1.5 g/g                           | Methylhippuric<br>acids<br>Methyl isobutyl<br>ketone<br>Sum of<br>mandelic acid<br>and<br>phenylglyoxylic<br>acid<br>Methylhippuric<br>acids   | Creatinine in<br>urine<br>Urine<br>Creatinine in<br>urine<br>Creatinine in | *             |  |
| ACGIH Biological Exposu<br>Components<br>1,2-Dimethybenzene (CAS<br>95-47-6)<br>4-Methyl-2-pentanone (CAS<br>108-10-1)<br>Ethyl benzene (CAS<br>100-41-4)<br>Xylene (CAS 1330-20-7)<br>* - For sampling details, plea | Value<br>1.5 g/g<br>51 mg/l<br>0.15 g/g<br>1.5 g/g<br>ase see the source doct | Methylhippuric<br>acids<br>Methyl isobutyl<br>ketone<br>Sum of<br>mandelic acid<br>and<br>phenylglyoxylic<br>acid<br>Methylhippuric<br>acids   | Creatinine in<br>urine<br>Urine<br>Creatinine in<br>urine<br>Creatinine in | *             |  |
| ACGIH Biological Exposu<br>Components<br>1,2-Dimethybenzene (CAS<br>95-47-6)<br>4-Methyl-2-pentanone (CAS<br>108-10-1)<br>Ethyl benzene (CAS<br>100-41-4)<br>Xylene (CAS 1330-20-7)<br>* - For sampling details, plea | Value<br>1.5 g/g<br>51 mg/l<br>0.15 g/g<br>1.5 g/g<br>ase see the source doct | Methylhippuric<br>acids<br>Methyl isobutyl<br>ketone<br>Sum of<br>mandelic acid<br>and<br>phenylglyoxylic<br>acid<br>Methylhippuric<br>acids   | Creatinine in<br>urine<br>Urine<br>Creatinine in<br>urine<br>Creatinine in | *             |  |

| Cumene (CAS 98-82-8)                |   | Can be absorbed through the skin.  |
|-------------------------------------|---|--|
| US - Minnesota Haz Subs: S          | Skin designation applies  |  |
| Cumene (CAS 98-82-8)                |   | Skin designation applies.  |
| US - Tennessee OELs: Skin           | designation   |  |
| Cumene (CAS 98-82-8)                |   | Can be absorbed through the skin.  |
| US NIOSH Pocket Guide to            | Chemical Hazards: Skin design   | nation   |
| Cumene (CAS 98-82-8)                |   | Can be absorbed through the skin.  |
| US. OSHA Table Z-1 Limits           | for Air Contaminants (29 CFR 1  | 1910.1000)   |
| Cumene (CAS 98-82-8)                |   | Can be absorbed through the skin.  |
| Appropriate engineering<br>controls | Explosion-proof general and local exhaust ventilation. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product. |  |
| Individual protection measures      | , such as personal protective e   | quipment   |
| Eye/face protection                 | Wear safety glasses with side   | shields (or goggles).  |
| Skin protection                     |   |  |
| Hand protection                     | Wear appropriate chemical res<br>supplier.  | sistant gloves. Suitable gloves can be recommended by the glove  |
| Other                               | Wear appropriate chemical res   | sistant clothing.  |
| Respiratory protection              | Wear positive pressure self-co  | ntained breathing apparatus (SCBA).  |
| Thermal hazards                     | Wear appropriate thermal prote  | ective clothing, when necessary.   |
| General hygiene<br>considerations   | hygiene measures, such as wa<br>smoking. Routinely wash work  | ep away from food and drink. Always observe good personal<br>ashing after handling the material and before eating, drinking, and/or<br>k clothing and protective equipment to remove contaminants.<br>hould not be allowed out of the workplace. |

# 9. Physical and chemical properties

| Appearance                              |                                     |
|---|-------------------------------------|
| Physical state                          | Liquid.                             |
| Form                                    | Liquid.                             |
| Color                                   | Clear colorless or nearly colorless |
| Odor                                    | Solvent.                            |
| Odor threshold                          | Not available.                      |
| рН                                      | Not available.                      |
| Melting point/freezing point            | -138.82 °F (-94.9 °C) estimated     |
| Initial boiling point and boiling range | 241.7 °F (116.5 °C) estimated       |
| Flash point                             | 55.0 °F (12.8 °C) estimated         |
| Evaporation rate                        | Not available.                      |
| Flammability (solid, gas)               | Not applicable.                     |
| Upper/lower flammability or exp         | losive limits                       |
| Flammability limit - lower<br>(%)       | 1.2 % estimated                     |
| Flammability limit - upper<br>(%)       | 12 % estimated                      |
| Explosive limit - lower (%)             | Not available.                      |
| Explosive limit - upper (%)             | Not available.                      |
| Vapor pressure                          | 13.11 hPa estimated                 |
| Vapor density                           | Not available.                      |
| Relative density                        | Not available.                      |
| Solubility(ies)                         |                                     |
| Solubility (water)                      | Not available.                      |

| Partition coefficient<br>(n-octanol/water) | Not available.   |
|--|--|
| Auto-ignition temperature                  | 810 °F (432.22 °C) estimated   |
| Decomposition temperature                  | Not available.   |
| Viscosity                                  | Not available.   |
| Other information                          |  |
| Density                                    | 8.11 lbs/gal   |
| Flammability class                         | Flammable IB estimated   |
| Percent volatile                           | 56.65 %  |
| Specific gravity                           | 0.97   |
| VOC  | 4.6 lbs/gal Regulatory<br>4.6 lbs/gal Material<br>550 g/l Regulatory<br>550 g/l Material |

# 10. Stability and reactivity

| Reactivity                            | The product is stable and non-reactive under normal conditions of use, storage and transport.  |
|---------------------------------------|--|
| Chemical stability                    | Material is stable under normal conditions.  |
| Possibility of hazardous<br>reactions | Hazardous polymerization does not occur.   |
| Conditions to avoid                   | Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials. |
| Incompatible materials                | Strong acids. Strong oxidizing agents. Halogens.   |
| Hazardous decomposition<br>products   | No hazardous decomposition products are known.   |

# 11. Toxicological information

## Information on likely routes of exposure

| Inhalation   | Toxic if inhaled. May cause damage to organs through prolonged or repeated exposure by inhalation. May cause allergy or asthma symptoms or breathing difficulties if inhaled.  |
|--|--|
| Skin contact   | Harmful in contact with skin. Causes skin irritation. May cause an allergic skin reaction.   |
| Eye contact  | Causes serious eye irritation.   |
| Ingestion  | Harmful if swallowed.  |
| Symptoms related to the physical, chemical and toxicological characteristics | Headache. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Difficulty in breathing. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash. |

#### Information on toxicological effects

| Acute toxicity | Toxic if inhaled. Harmful in contact with skin. Harmful if swallowed. May cause an allergic skin |
|----------------|--|
|                | reaction.  |

| Components                | Species  | Test Results      |
|---------------------------|----------|-------------------|
| 1,2-Dimethybenzene (CAS § | 95-47-6) |                   |
| <u>Acute</u>              |          |                   |
| Dermal                    |          |                   |
| LD50                      | Rabbit   | > 43 g/kg         |
| Inhalation                |          |                   |
| LC50                      | Mouse    | 4600 ppm, 6 Hours |
|                           | Rat      | 6350 ppm, 4 Hours |
| Oral                      |          |                   |
| LD50                      | Mouse    | 1590 mg/kg        |
|                           | Rat      | 4300 mg/kg        |
|                           |          |                   |

| Components                   | Species      | Test Results       |
|------------------------------|--------------|--------------------|
| 2,6-Dimethyl-4-heptanone (C  | AS 108-83-8) |                    |
| <u>Acute</u>                 |              |                    |
| Dermal                       |              |                    |
| LD50                         | Rabbit       | 16200 mg/kg        |
|                              | Rat          | > 2000 mg/kg       |
| Inhalation                   | _            |                    |
| LC50                         | Rat          | > 5 mg/l, 4 Hours  |
| Oral                         |              |                    |
| LD50                         | Mouse        | 1416 mg/kg         |
|                              | Rat          | 5285 mg/kg         |
| 4-Methyl-2-pentanone (CAS    | 108-10-1)    |                    |
| <u>Acute</u>                 |              |                    |
| <b>Dermal</b><br>LD50        | Rabbit       | > 16000 mg/kg      |
| Inhalation                   | Rabbit       | > 10000 mg/kg      |
| LC50                         | Rat          | 8.2 mg/l, 4 Hours  |
| Oral                         |              | 0.2 mg/i, 1 hours  |
| LD50                         | Rat          | 2080 mg/kg         |
| Cumene (CAS 98-82-8)         |              |                    |
| <u>Acute</u>                 |              |                    |
| Inhalation                   |              |                    |
| LC50                         | Mouse        | 2000 ppm, 7 Hours  |
|                              |              | 24.7 mg/l, 2 Hours |
|                              | Rat          | 8000 ppm, 4 Hours  |
| Oral                         |              |                    |
| LD50                         | Rat          | 1400 mg/kg         |
| Ethyl benzene (CAS 100-41-   | 4)           |                    |
| Acute                        |              |                    |
| Dermal                       |              |                    |
| LD50                         | Rabbit       | 17800 mg/kg        |
| Oral                         |              |                    |
| LD50                         | Rat          | 3500 mg/kg         |
| n-butyl acetate (CAS 123-86- | -4)          |                    |
| Acute                        |              |                    |
| Inhalation                   |              |                    |
| LC50                         | Wistar rat   | 160 mg/l, 4 Hours  |
| Oral                         | 5.4          | 11000 #            |
| LD50                         | Rat          | 14000 mg/kg        |
| Xylene (CAS 1330-20-7)       |              |                    |
| <u>Acute</u><br>Dermal       |              |                    |
| LD50                         | Rabbit       | > 43 g/kg          |
| Inhalation                   | (dob)(       |                    |
| LC50                         | Mouse        | 3907 mg/l, 6 Hours |
|                              | Rat          | 6350 mg/l, 4 Hours |
| Oral                         |              |                    |
| LD50                         | Mouse        | 1590 mg/kg         |
|                              | Rat          | 3523 - 8600 mg/kg  |
|                              |              |                    |
|                              |              |                    |

\* Estimates for product may be based on additional component data not shown.

| Skin corrosion/irritation   | Causes skin irritation.  |   |  |
|---|--|---|--|
| Serious eye damage/eye<br>irritation  | Causes serious eye irritation.   |   |  |
| Respiratory or skin sensitizatior   | ı  |   |  |
| <b>Respiratory sensitization</b>  | May cause allergy or asthma  | symptoms or breathing difficulties if inhaled.  |  |
| Skin sensitization  | May cause an allergic skin rea   | action.   |  |
| Germ cell mutagenicity  | May cause genetic defects.   | May cause genetic defects.  |  |
| Carcinogenicity   | May cause cancer.  |   |  |
| IARC Monographs. Overall I  | Evaluation of Carcinogenicity  |   |  |
| 4-Methyl-2-pentanone (C.<br>Cumene (CAS 98-82-8)<br>Ethyl benzene (CAS 100-<br>Xylene (CAS 1330-20-7) | enzene (CAS 100-41-4)2B Possibly carcinogenic to humans.(CAS 1330-20-7)3 Not classifiable as to carcinogenicity to humans.cifically Regulated Substances (29 CFR 1910.1001-1050) |   |  |
| Reproductive toxicity   | Components in this product have been shown to cause birth defects and reproductive disorders in laboratory animals. Suspected of damaging the unborn child.                      |   |  |
| Specific target organ toxicity - single exposure  | Not classified.  |   |  |
| Specific target organ toxicity - repeated exposure  | Causes damage to organs through prolonged or repeated exposure.  |   |  |
| Aspiration hazard   | Not an aspiration hazard.  |   |  |
| Chronic effects   | Causes damage to organs thr<br>harmful. Prolonged exposure   | ough prolonged or repeated exposure. Prolonged inhalation may be may cause chronic effects. |  |

# 12. Ecological information

| toxicity                  | Toxic to aq | uatic life with long lasting effects.                  |                              |
|---------------------------|-------------|--|------------------------------|
| Components                |             | Species  | Test Results                 |
| 1,2-Dimethybenzene (CAS   | 6 95-47-6)  |  |                              |
| Aquatic                   |             |  |                              |
| Crustacea                 | EC50        | Water flea (Daphnia magna)                             | 0.78 - 2.51 mg/l, 48 hours   |
| Fish                      | LC50        | Rainbow trout,donaldson trout<br>(Oncorhynchus mykiss) | 5.59 - 11.6 mg/l, 96 hours   |
| 4-Methyl-2-pentanone (CA  | S 108-10-1) |  |                              |
| Aquatic                   |             |  |                              |
| Fish                      | LC50        | Fathead minnow (Pimephales promelas)                   | 492 - 593 mg/l, 96 hours     |
| Cumene (CAS 98-82-8)      |             |  |                              |
| Aquatic                   |             |  |                              |
| Crustacea                 | EC50        | Brine shrimp (Artemia sp.)                             | 3.55 - 11.29 mg/l, 48 hours  |
| Fish                      | LC50        | Rainbow trout,donaldson trout<br>(Oncorhynchus mykiss) | 2.7 mg/l, 96 hours           |
| Ethyl benzene (CAS 100-4  | 11-4)       |  |                              |
| Aquatic                   |             |  |                              |
| Crustacea                 | EC50        | Water flea (Daphnia magna)                             | 1.37 - 4.4 mg/l, 48 hours    |
| Fish                      | LC50        | Fathead minnow (Pimephales promelas)                   | 7.5 - 11 mg/l, 96 hours      |
| n-butyl acetate (CAS 123- | 86-4)       |  |                              |
| Aquatic                   |             |  |                              |
| Fish                      | LC50        | Fathead minnow (Pimephales promelas)                   | 17 - 19 mg/l, 96 hours       |
| Xylene (CAS 1330-20-7)    |             |  |                              |
| Aquatic                   |             |  |                              |
| Fish                      | LC50        | Bluegill (Lepomis macrochirus)                         | 7.711 - 9.591 mg/l, 96 hours |

\* Estimates for product may be based on additional component data not shown.

Persistence and degradability No data is available on the degradability of this product.

#### Bioaccumulative potential

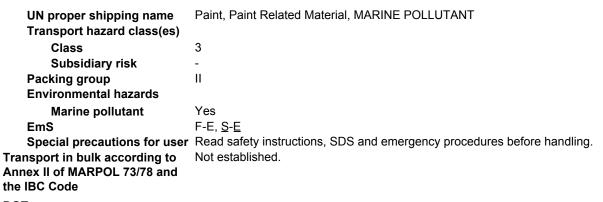
| Partition coefficient n-octa | anol / water (log Kow)  |
|------------------------------|---|
| 1,2-Dimethybenzene           | 3.12  |
| 4-Methyl-2-pentanone         | 1.31  |
| Cumene                       | 3.66  |
| Ethyl benzene                | 3.15  |
| n-butyl acetate              | 1.78  |
| Xylene                       | 3.12 - 3.2  |
| Mobility in soil             | No data available.  |
| Other adverse effects        | No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component. |

## 13. Disposal considerations

| Disposal instructions                    | Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations. |
|--|--|
| Local disposal regulations               | Dispose in accordance with all applicable regulations.   |
| Hazardous waste code                     | The waste code should be assigned in discussion between the user, the producer and the waste disposal company.   |
| Waste from residues / unused<br>products | Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).   |
| Contaminated packaging                   | Since emptied containers may retain product residue, follow label warnings even after container is<br>emptied. Empty containers should be taken to an approved waste handling site for recycling or<br>disposal.   |

# 14. Transport information

| DOT                             |   |
|---------------------------------|---|
| UN number                       | UN1263  |
| UN proper shipping name         | Paint, Paint Related Material (XYLENE TOTE 92002)                       |
| Transport hazard class(es)      |   |
| Class                           | 3   |
| Subsidiary risk                 | -   |
| Label(s)                        | 3   |
| Packing group                   | II  |
| Environmental hazards           |   |
| Marine pollutant                | Yes   |
| Special precautions for user    | Read safety instructions, SDS and emergency procedures before handling. |
| Special provisions              | IB2, T7, TP1, TP8, TP28   |
| Packaging exceptions            | 150   |
| Packaging non bulk              | 202   |
| Packaging bulk                  | 242   |
| ΙΑΤΑ                            |   |
| UN number                       | UN1263  |
| UN proper shipping name         | Paint, Paint Related Material   |
| Transport hazard class(es)      |   |
| Class                           | 3   |
| Subsidiary risk                 | -   |
| Packing group                   | II  |
| Environmental hazards           | Yes   |
| ERG Code                        | 3H  |
|                                 | Read safety instructions, SDS and emergency procedures before handling. |
| Other information               |   |
| Passenger and cargo<br>aircraft | Allowed.  |
| Cargo aircraft only             | Allowed.  |
| IMDG                            | , norrou.   |
| UN number                       | UN1263  |



DOT



Marine pollutant



DOT Regulated Marine Pollutant. IMDG Regulated Marine Pollutant.

#### 15. Regulatory information

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

#### TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

# CERCLA Hazardous Substance List (40 CFR 302.4)

| 1,2-Dimethybenzene (CAS 95-47-6)    | Listed. |
|-------------------------------------|---------|
| 4-Methyl-2-pentanone (CAS 108-10-1) | Listed. |
| Cumene (CAS 98-82-8)                | Listed. |
| Ethyl benzene (CAS 100-41-4)        | Listed. |
| n-butyl acetate (CAS 123-86-4)      | Listed. |
| Xylene (CAS 1330-20-7)              | Listed. |

#### SARA 304 Emergency release notification

Not regulated.

# OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

#### Superfund Amendments and Reauthorization Act of 1986 (SARA)

| Hazard categories | Immediate Hazard - Yes<br>Delayed Hazard - Yes |
|-------------------|--|
|                   | Fire Hazard - Yes                              |
|                   | Pressure Hazard - No                           |
|                   | Reactivity Hazard - No                         |

No

#### SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous

chemical

#### SARA 313 (TRI reporting)

| / wt. |
|-------|
| o <40 |
| o <20 |
| <10   |
| o <1  |
| o <1  |
|       |

#### Other federal regulations

#### Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

1,2-Dimethybenzene (CAS 95-47-6) 4-Methyl-2-pentanone (CAS 108-10-1) Cumene (CAS 98-82-8) Ethyl benzene (CAS 100-41-4) Xylene (CAS 1330-20-7)

#### Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act Not regulated.

#### (SDWA)

# Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number

35 %WV

6715

4-Methyl-2-pentanone (CAS 108-10-1) 6715 Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))

4-Methyl-2-pentanone (CAS 108-10-1)

#### DEA Exempt Chemical Mixtures Code Number

4-Methyl-2-pentanone (CAS 108-10-1)

#### US state regulations

#### US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100) Not listed.

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd.

(a))

1,2-Dimethybenzene (CAS 95-47-6) 4-Methyl-2-pentanone (CAS 108-10-1) Cumene (CAS 98-82-8) Ethyl benzene (CAS 100-41-4) light aromatic solvent naphtha (CAS 64742-95-6) Xylene (CAS 1330-20-7)

#### US. Massachusetts RTK - Substance List

1,2-Dimethybenzene (CAS 95-47-6) 2,6-Dimethyl-4-heptanone (CAS 108-83-8) 4-Methyl-2-pentanone (CAS 108-10-1) Cumene (CAS 98-82-8) Ethyl benzene (CAS 100-41-4) n-butyl acetate (CAS 123-86-4) Xylene (CAS 1330-20-7)

#### US. New Jersey Worker and Community Right-to-Know Act

1,2-Dimethybenzene (CAS 95-47-6) 2,6-Dimethyl-4-heptanone (CAS 108-83-8) 4-Methyl-2-pentanone (CAS 108-10-1) Cumene (CAS 98-82-8) Ethyl benzene (CAS 100-41-4) n-butyl acetate (CAS 123-86-4) Xylene (CAS 1330-20-7)

#### US. Pennsylvania Worker and Community Right-to-Know Law

1,2-Dimethybenzene (CAS 95-47-6) 2,6-Dimethyl-4-heptanone (CAS 108-83-8) 4-Methyl-2-pentanone (CAS 108-10-1) Cumene (CAS 98-82-8) Ethyl benzene (CAS 100-41-4) n-butyl acetate (CAS 123-86-4) Xylene (CAS 1330-20-7)

#### **US. Rhode Island RTK**

1,2-Dimethybenzene (CAS 95-47-6) 4-Methyl-2-pentanone (CAS 108-10-1) Cumene (CAS 98-82-8) Ethyl benzene (CAS 100-41-4) n-butyl acetate (CAS 123-86-4) Xylene (CAS 1330-20-7)

#### **US. California Proposition 65**

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

#### US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

| 4-Methyl-2-pentanone (CAS 108-10-1)                                       | Listed: November 4, 2011  |  |
|---|---------------------------|--|
| benzene (CAS 71-43-2)   | Listed: February 27, 1987 |  |
| Cumene (CAS 98-82-8)  | Listed: April 6, 2010     |  |
| Ethyl benzene (CAS 100-41-4)  | Listed: June 11, 2004     |  |
| Formaldehyde (CAS 50-00-0)  | Listed: January 1, 1988   |  |
| naphthalene (CAS 91-20-3)   | Listed: April 19, 2002    |  |
| US - California Proposition 65 - CRT: Listed date/                        | Developmental toxin       |  |
| 4-Methyl-2-pentanone (CAS 108-10-1)                                       | Listed: March 28, 2014    |  |
| benzene (CAS 71-43-2)   | Listed: December 26, 1997 |  |
| Toluene (CAS 108-88-3)  | Listed: January 1, 1991   |  |
| US - California Proposition 65 - CRT: Listed date/F                       | emale reproductive toxin  |  |
| Toluene (CAS 108-88-3)  | Listed: August 7, 2009    |  |
| US - California Proposition 65 - CRT: Listed date/Male reproductive toxin |                           |  |
|   |                           |  |

benzene (CAS 71-43-2) Listed: December 26, 1997

#### International Inventories

| Country(s) or region        | Inventory name  | On inventory (yes/no)* |
|-----------------------------|---|------------------------|
| Australia                   | Australian Inventory of Chemical Substances (AICS)                        | No                     |
| Canada                      | Domestic Substances List (DSL)  | No                     |
| Canada                      | Non-Domestic Substances List (NDSL)                                       | Yes                    |
| China                       | Inventory of Existing Chemical Substances in China (IECSC)                | No                     |
| Europe                      | European Inventory of Existing Commercial Chemical<br>Substances (EINECS) | No                     |
| Europe                      | European List of Notified Chemical Substances (ELINCS)                    | No                     |
| Japan                       | Inventory of Existing and New Chemical Substances (ENCS)                  | No                     |
| Korea                       | Existing Chemicals List (ECL)   | No                     |
| New Zealand                 | New Zealand Inventory   | No                     |
| Philippines                 | Philippine Inventory of Chemicals and Chemical Substances (PICCS)         | Yes                    |
| United States & Puerto Rico | Toxic Substances Control Act (TSCA) Inventory                             | No                     |

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s) A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

# 16. Other information, including date of preparation or last revision

| Issue date    | 07-21-2015  |
|---------------|---|
| Version #     | 01  |
| HMIS® ratings | Health: 3*<br>Flammability: 3<br>Physical hazard: 0   |
| NFPA ratings  | Health: 3<br>Flammability: 3<br>Instability: 0  |
| Disclaimer    | The information in the sheet was written based on the best knowledge and experience currently available. THE INFORMATION CONTAINED HEREIN IS BASED ON DATA BELIEVED TO BE RELIABLE AND THE MANUFACTURER DISCLAIMS ANY LIABILITY INCURRED FROM THE USE OR RELIANCE UPON THE SAME. THE INFORMATION GIVEN IS DESIGNED ONLY AS A GUIDANCE FOR SAFE HANDLING, USE, PROCESSING, STORAGE, TRANSPORTATION, DISPOSAL AND RELEASE AND IS NOT TO BE CONSIDERED A WARRANTY OR QUALITY SPECIFICATION. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. This safety information is not a license to use this material as claimed by any patents of third parties. The user alone must finally determine whether a contemplated use of this material will infringe any such patents, and for obtaining any required licenses. |