

1. Identification

Product identifier #1746 SM ARNOLD AUTUMN RED #65-902

Other means of identification

Product Code 06094 711317 604

Recommended use Not available.

Manufacturer/Importer/Supplier/Distributor information

Company name Quest Industrial Products, LLC.
Address N92 W14701 Anthony Avenue
 Menomonee Falls, WI 53051
 United States
Telephone General Assistance (262) 255-9500
Website quest-ip.com
E-mail info@quest-ip.com
Emergency phone number Chemtrec Phone 800-424-9300

2. Hazard(s) identification

| | | |
|------------------------------|--|-----------------------------|
| Physical hazards | Flammable aerosols | Category 2 |
| | Gases under pressure | Liquefied gas |
| Health hazards | Skin corrosion/irritation | Category 2 |
| | Serious eye damage/eye irritation | Category 2A |
| | Carcinogenicity | Category 2 |
| | Reproductive toxicity | Category 1 |
| | Specific target organ toxicity, single exposure | Category 3 narcotic effects |
| | Specific target organ toxicity, repeated exposure | Category 2 |
| Environmental hazards | Hazardous to the aquatic environment, acute hazard | Category 3 |
| | Hazardous to the aquatic environment, long-term hazard | Category 3 |
| OSHA defined hazards | Not classified. | |

Label elements



Signal word Danger

Hazard statement Flammable aerosol. Contains gas under pressure; may explode if heated. Causes skin irritation. Causes serious eye irritation. May cause drowsiness or dizziness. Suspected of causing cancer. May damage fertility or the unborn child. May cause damage to organs through prolonged or repeated exposure. Harmful to aquatic life. Harmful 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 and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use. Do not breathe mist or vapor. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection.

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| Response | If on skin: Wash with plenty of water. 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. If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash before reuse. |
| Storage | Store in a well-ventilated place. Keep container tightly closed. Store locked up. Protect from sunlight. Store in a well-ventilated place. Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. |
| Disposal | Dispose of contents/container in accordance with local/regional/national/international regulations. |
| Hazard(s) not otherwise classified (HNOC) | None known. |
| Supplemental information | 82.35% of the mixture consists of component(s) of unknown acute hazards to the aquatic environment. 82.35% of the mixture consists of component(s) of unknown long-term hazards to the aquatic environment. |

3. Composition/information on ingredients

Mixtures

| Chemical name | Common name and synonyms | CAS number | % |
|--|--------------------------|------------|-----------|
| ACETONE | | 67-64-1 | 40 to <50 |
| N-BUTANE | | 106-97-8 | 10 to <20 |
| PROPANE | | 74-98-6 | 10 to <20 |
| TOLUENE | | 108-88-3 | 10 to <20 |
| METHYL ETHYL KETONE | | 78-93-3 | 1 to <5 |
| PROPYLENE GLYCOL METHYL ETHER ACETATE | | 108-65-6 | 1 to <5 |
| 1-METHYL-2-PYRROLIDONE | | 872-50-4 | 0.1 to <1 |
| Butyl benzyl phthalate | | 85-68-7 | 0.1 to <1 |
| ETHYLBENZENE | | 100-41-4 | 0.1 to <1 |
| TITANIUM DIOXIDE | | 13463-67-7 | 0.1 to <1 |
| Other components below reportable levels | | | 5 to <10 |

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

4. First-aid measures

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| Inhalation | Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell. |
| Skin contact | Remove contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse. |
| Eye contact | Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists. |
| Ingestion | Not likely, due to the form of the product. In the unlikely event of swallowing contact a physician or poison control center. Rinse mouth. |
| Most important symptoms/effects, acute and delayed | May cause drowsiness and dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain. Prolonged exposure may cause chronic effects. |
| Indication of immediate medical attention and special treatment needed | Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed. |
| General information | 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. |

5. Fire-fighting measures

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| Suitable extinguishing media | Water fog. Alcohol resistant foam. Dry chemical powder. Carbon dioxide (CO2). |
| Unsuitable extinguishing media | Do not use water jet as an extinguisher, as this will spread the fire. |

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| Specific hazards arising from the chemical | Contents under pressure. Pressurized container may explode when exposed to heat or flame. During fire, gases hazardous to health may be formed. |
| Special protective equipment and precautions for firefighters | Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. |
| Fire fighting equipment/instructions | In case of fire: Stop leak if safe to do so. Do not move cargo or vehicle if cargo has been exposed to heat. Move containers from fire area if you can do so without risk. Containers should be cooled with water to prevent vapor pressure build up. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out. |
| Specific methods | Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk. In the event of fire and/or explosion do not breathe fumes. |
| General fire hazards | Flammable aerosol. Contents under pressure. Pressurized container may explode when exposed to heat or flame. |

6. Accidental release measures

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| Personal precautions, protective equipment and emergency procedures | Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks). Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Emergency personnel need self-contained breathing equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. 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 | Refer to attached safety data sheets and/or instructions for use. Stop leak if you can do so without risk. Move the cylinder to a safe and open area if the leak is irreparable. Isolate area until gas has dispersed. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Prevent product from entering drains. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water. Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. For waste disposal, see section 13 of the SDS. |
| Environmental precautions | Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground. |

7. Handling and storage

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| Precautions for safe handling | Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. All equipment used when handling the product must be grounded. Close valve after each use and when empty. Protect cylinders from physical damage; do not drag, roll, slide, or drop. When moving cylinders, even for short distances, use a cart (trolley, hand truck, etc.) designed to transport cylinders. Suck back of water into the container must be prevented. Do not allow backfeed into the container. Purge air from system before introducing gas. Use only properly specified equipment which is suitable for this product, its supply pressure and temperature. Contact your gas supplier if in doubt. Do not re-use empty containers. Do not breathe mist or vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Pregnant or breastfeeding women must not handle this product. Should be handled in closed systems, if possible. Use only in well-ventilated areas. Wear appropriate personal protective equipment. Avoid release to the environment. Observe good industrial hygiene practices. |
| Conditions for safe storage, including any incompatibilities | Level 3 Aerosol. Store locked up. Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C/122 °F. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. This material can accumulate static charge which may cause spark and become an ignition source. Cylinders should be stored upright, with valve protection cap in place, and firmly secured to prevent falling or being knocked over. Stored containers should be periodically checked for general condition and leakage. Store in a well-ventilated place. 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 | Type | Value | Form |
|-----------------------------------|------|------------------------|-------------|
| ACETONE (CAS 67-64-1) | PEL | 2400 mg/m3 1000 ppm | |
| ETHYLBENZENE (CAS 100-41-4) | PEL | 435 mg/m3 100 ppm | |
| METHYL ETHYL KETONE (CAS 78-93-3) | PEL | 590 mg/m3 200 ppm | |
| PROPANE (CAS 74-98-6) | PEL | 1800 mg/m3 1000 ppm | |
| TITANIUM DIOXIDE (CAS 13463-67-7) | PEL | 15 mg/m3 | Total dust. |

US. OSHA Table Z-2 (29 CFR 1910.1000)

| Components | Type | Value |
|------------------------|---------|---------|
| TOLUENE (CAS 108-88-3) | Ceiling | 300 ppm |
| | TWA | 200 ppm |

US. ACGIH Threshold Limit Values

| Components | Type | Value |
|-----------------------------------|------|----------|
| ACETONE (CAS 67-64-1) | STEL | 750 ppm |
| | TWA | 500 ppm |
| ETHYLBENZENE (CAS 100-41-4) | TWA | 20 ppm |
| METHYL ETHYL KETONE (CAS 78-93-3) | STEL | 300 ppm |
| | TWA | 200 ppm |
| N-BUTANE (CAS 106-97-8) | STEL | 1000 ppm |
| TITANIUM DIOXIDE (CAS 13463-67-7) | TWA | 10 mg/m3 |
| TOLUENE (CAS 108-88-3) | TWA | 20 ppm |

US. NIOSH: Pocket Guide to Chemical Hazards

| Components | Type | Value |
|-----------------------------------|------|------------------------|
| ACETONE (CAS 67-64-1) | TWA | 590 mg/m3 250 ppm |
| ETHYLBENZENE (CAS 100-41-4) | STEL | 545 mg/m3 125 ppm |
| | TWA | 435 mg/m3 100 ppm |
| METHYL ETHYL KETONE (CAS 78-93-3) | STEL | 885 mg/m3 300 ppm |
| | TWA | 590 mg/m3 200 ppm |
| N-BUTANE (CAS 106-97-8) | TWA | 1900 mg/m3 800 ppm |
| PROPANE (CAS 74-98-6) | TWA | 1800 mg/m3 1000 ppm |
| TOLUENE (CAS 108-88-3) | STEL | 560 mg/m3 150 ppm |
| | TWA | 375 mg/m3 100 ppm |

US. Workplace Environmental Exposure Level (WEEL) Guides

| Components | Type | Value |
|--|------|----------------------|
| 1-METHYL-2-PYRROLIDONE (CAS 872-50-4) | TWA | 40 mg/m ³ |
| PROPYLENE GLYCOL METHYL ETHER ACETATE (CAS 108-65-6) | TWA | 10 ppm 50 ppm |

Biological limit values

ACGIH Biological Exposure Indices

| Components | Value | Determinant | Specimen | Sampling Time |
|---------------------------------------|-----------|---|---------------------|---------------|
| 1-METHYL-2-PYRROLIDONE (CAS 872-50-4) | 100 mg/l | 5-Hydroxy-N-methyl-2-pyrrolidone | Urine | * |
| ACETONE (CAS 67-64-1) | 50 mg/l | Acetone | Urine | * |
| ETHYLBENZENE (CAS 100-41-4) | 0.15 g/g | Sum of mandelic acid and phenylglyoxylic acid | Creatinine in urine | * |
| METHYL ETHYL KETONE (CAS 78-93-3) | 2 mg/l | MEK | Urine | * |
| TOLUENE (CAS 108-88-3) | 0.3 mg/g | o-Cresol, with hydrolysis | Creatinine in urine | * |
| | 0.03 mg/l | Toluene | Urine | * |
| | 0.02 mg/l | Toluene | Blood | * |

* - For sampling details, please see the source document.

Exposure guidelines

US - California OELs: Skin designation

| | |
|--|-----------------------------------|
| 1-METHYL-2-PYRROLIDONE (CAS 872-50-4) | Can be absorbed through the skin. |
| PROPYLENE GLYCOL METHYL ETHER ACETATE (CAS 108-65-6) | Can be absorbed through the skin. |
| TOLUENE (CAS 108-88-3) | Can be absorbed through the skin. |

US - Minnesota Haz Subs: Skin designation applies

| | |
|------------------------|---------------------------|
| TOLUENE (CAS 108-88-3) | Skin designation applies. |
|------------------------|---------------------------|

US WEEL Guides: Skin designation

| | |
|---------------------------------------|-----------------------------------|
| 1-METHYL-2-PYRROLIDONE (CAS 872-50-4) | Can be absorbed through the skin. |
|---------------------------------------|-----------------------------------|

Appropriate engineering controls

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 equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier.

Other Wear appropriate chemical resistant clothing.

Respiratory protection In case of insufficient ventilation, wear suitable respiratory equipment.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

Observe any medical surveillance requirements. When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance

| | |
|-----------------------|-------------------------|
| Physical state | Liquid. |
| Form | Aerosol. Liquefied gas. |

| | |
|---|--|
| Color | Not available. |
| Odor | Not available. |
| Odor threshold | Not available. |
| pH | Not available. |
| Melting point/freezing point | -305.68 °F (-187.6 °C) estimated |
| Initial boiling point and boiling range | -43.78 °F (-42.1 °C) estimated |
| Flash point | -156.0 °F (-104.4 °C) estimated |
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not applicable. |
| Upper/lower flammability or explosive limits | |
| Flammability limit - lower (%) | 1.3 % estimated |
| Flammability limit - upper (%) | 12.8 % estimated |
| Explosive limit - lower (%) | Not available. |
| Explosive limit - upper (%) | Not available. |
| Vapor pressure | 2280.43 hPa estimated |
| Vapor density | Not available. |
| Relative density | Not available. |
| Solubility(ies) | |
| Solubility (water) | Not available. |
| Partition coefficient (n-octanol/water) | Not available. |
| Auto-ignition temperature | 550 °F (287.78 °C) estimated |
| Decomposition temperature | Not available. |
| Viscosity | Not available. |
| Other information | |
| Density | 6.10 lbs/gal |
| Explosive properties | Not explosive. |
| Flammability class | Flammable IA estimated |
| Heat of combustion (NFPA 30B) | 30.14 kJ/g estimated |
| Oxidizing properties | Not oxidizing. |
| Percent volatile | 90.9 |
| Specific gravity | 0.73 |
| VOC | 4.87 lbs/gal Regulatory 583.86 g/l Regulatory 2.94 lbs/gal Material 352.53 g/l Material |

10. Stability and reactivity

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| 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 reactions | No dangerous reaction known under conditions of normal use. |
| Conditions to avoid | Heat. Avoid temperatures exceeding the flash point. Contact with incompatible materials. |
| Incompatible materials | Acids. Strong oxidizing agents. Nitrates. Fluorine. Chlorine. |
| Hazardous decomposition products | No hazardous decomposition products are known. |

11. Toxicological information

Information on likely routes of exposure

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|---------------------|--|
| Inhalation | May cause damage to organs through prolonged or repeated exposure by inhalation. May cause drowsiness and dizziness. Headache. Nausea, vomiting. |
| Skin contact | Causes skin irritation. |
| Eye contact | Causes serious eye irritation. |
| Ingestion | Expected to be a low ingestion hazard. |

Symptoms related to the physical, chemical and toxicological characteristics May cause drowsiness and dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain.

Information on toxicological effects

Acute toxicity Narcotic effects.

| Components | Species | Test Results |
|---------------------------------------|----------------|-----------------------|
| 1-METHYL-2-PYRROLIDONE (CAS 872-50-4) | | |
| Acute | | |
| Dermal | | |
| LD50 | Rabbit | 8000 mg/kg |
| Oral | | |
| LD50 | Mouse | 5130 mg/kg |
| | Rat | 3914 mg/kg |
| | | 4.2 ml/kg |
| ACETONE (CAS 67-64-1) | | |
| Acute | | |
| Dermal | | |
| LD50 | Rabbit | > 15800 mg/kg |
| Inhalation | | |
| LC50 | Rat | 76 mg/l, 4 Hours |
| Oral | | |
| LD50 | Mouse | 3000 mg/kg |
| | Rat | 5800 mg/kg |
| Butyl benzyl phthalate (CAS 85-68-7) | | |
| Acute | | |
| Dermal | | |
| LD50 | Mouse | 6700 mg/kg |
| | Rat | 6700 mg/kg |
| Oral | | |
| LD50 | Rat | 13500 mg/kg |
| ETHYLBENZENE (CAS 100-41-4) | | |
| Acute | | |
| Dermal | | |
| LD50 | Rabbit | 17800 mg/kg |
| Oral | | |
| LD50 | Rat | 3500 mg/kg |
| METHYL ETHYL KETONE (CAS 78-93-3) | | |
| Acute | | |
| Dermal | | |
| LD50 | Rabbit | > 8000 mg/kg |
| Inhalation | | |
| LC50 | Mouse | 11000 ppm, 45 Minutes |
| | Rat | 11700 ppm, 4 Hours |

| Components | Species | Test Results |
|-------------------------|---------|---|
| Oral | | |
| LD50 | Mouse | 670 mg/kg |
| | Rat | 2300 - 3500 mg/kg |
| N-BUTANE (CAS 106-97-8) | | |
| <u>Acute</u> | | |
| Inhalation | | |
| LC50 | Mouse | 680 mg/l, 2 Hours |
| | Rat | 658 mg/l, 4 Hours |
| PROPANE (CAS 74-98-6) | | |
| <u>Acute</u> | | |
| Inhalation | | |
| LC50 | Rat | > 1442.847 mg/l, 15 Minutes |
| TOLUENE (CAS 108-88-3) | | |
| <u>Acute</u> | | |
| Dermal | | |
| LD50 | Rabbit | 12124 mg/kg 14.1 ml/kg |
| Inhalation | | |
| LC50 | Mouse | 5320 ppm, 8 Hours 400 ppm, 24 Hours |
| | Rat | 26700 ppm, 1 Hours 12200 ppm, 2 Hours 8000 ppm, 4 Hours |
| Oral | | |
| LD50 | Rat | 2.6 g/kg |

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

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| Skin corrosion/irritation | Causes skin irritation. |
| Serious eye damage/eye irritation | Causes serious eye irritation. |
| Respiratory or skin sensitization | |
| Respiratory sensitization | Not a respiratory sensitizer. |
| Skin sensitization | This product is not expected to cause skin sensitization. |
| Germ cell mutagenicity | No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic. |
| Carcinogenicity | Suspected of causing cancer. |
| IARC Monographs. Overall Evaluation of Carcinogenicity | |
| Butyl benzyl phthalate (CAS 85-68-7) | 3 Not classifiable as to carcinogenicity to humans. |
| ETHYLBENZENE (CAS 100-41-4) | 2B Possibly carcinogenic to humans. |
| TITANIUM DIOXIDE (CAS 13463-67-7) | 2B Possibly carcinogenic to humans. |
| TOLUENE (CAS 108-88-3) | 3 Not classifiable as to carcinogenicity to humans. |
| OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050) | |
| Not regulated. | |
| US. National Toxicology Program (NTP) Report on Carcinogens | |
| Not listed. | |
| Reproductive toxicity | May damage fertility or the unborn child. |
| Specific target organ toxicity - single exposure | May cause drowsiness and dizziness. |
| Specific target organ toxicity - repeated exposure | May cause damage to organs through prolonged or repeated exposure. |
| Aspiration hazard | Not an aspiration hazard. |

Chronic effects

May cause damage to organs through prolonged or repeated exposure. Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects.

12. Ecological information

Ecotoxicity Harmful to aquatic life with long lasting effects.

| Components | | Species | Test Results |
|---|------|---|------------------------------|
| ACETONE (CAS 67-64-1) | | | |
| Aquatic | | | |
| Crustacea | EC50 | Water flea (Daphnia magna) | 10294 - 17704 mg/l, 48 hours |
| Fish | LC50 | Rainbow trout,donaldson trout (Oncorhynchus mykiss) | 4740 - 6330 mg/l, 96 hours |
| Butyl benzyl phthalate (CAS 85-68-7) | | | |
| Aquatic | | | |
| Crustacea | EC50 | Water flea (Daphnia magna) | > 0.96 mg/l, 48 hours |
| Fish | LC50 | Shiner perch (Cymatogaster aggregata) | 0.47 - 0.56 mg/l, 96 hours |
| ETHYLBENZENE (CAS 100-41-4) | | | |
| 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 |
| METHYL ETHYL KETONE (CAS 78-93-3) | | | |
| Aquatic | | | |
| Crustacea | EC50 | Water flea (Daphnia magna) | 4025 - 6440 mg/l, 48 hours |
| Fish | LC50 | Sheepshead minnow (Cyprinodon variegatus) | > 400 mg/l, 96 hours |
| TITANIUM DIOXIDE (CAS 13463-67-7) | | | |
| Aquatic | | | |
| Crustacea | EC50 | Water flea (Daphnia magna) | > 1000 mg/l, 48 hours |
| Fish | LC50 | Mummichog (Fundulus heteroclitus) | > 1000 mg/l, 96 hours |
| TOLUENE (CAS 108-88-3) | | | |
| Aquatic | | | |
| Crustacea | EC50 | Water flea (Daphnia magna) | 5.46 - 9.83 mg/l, 48 hours |
| Fish | LC50 | Coho salmon,silver salmon (Oncorhynchus kisutch) | 8.11 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-octanol / water (log Kow)**

| | |
|------------------------|-------|
| 1-METHYL-2-PYRROLIDONE | -0.54 |
| ACETONE | -0.24 |
| Butyl benzyl phthalate | 4.91 |
| ETHYLBENZENE | 3.15 |
| METHYL ETHYL KETONE | 0.29 |
| N-BUTANE | 2.89 |
| PROPANE | 2.36 |
| TOLUENE | 2.73 |

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. Contents under pressure. Do not puncture, incinerate or crush. 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.

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| 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 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 emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers. |

14. Transport information

DOT

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|-------------------------------------|---|
| UN number | UN1950 |
| UN proper shipping name | UN1950, Aerosols, Flammable |
| Transport hazard class(es) | |
| Class | 2.1 |
| Subsidiary risk | - |
| Label(s) | 2.1 |
| Packing group | Not applicable. |
| Special precautions for user | Read safety instructions, SDS and emergency procedures before handling. |
| Special provisions | N82 |
| Packaging exceptions | 306 |
| Packaging non bulk | None |
| Packaging bulk | None |

IATA

| | |
|-------------------------------------|---|
| UN number | UN1950 |
| UN proper shipping name | Aerosols, Flammable |
| Transport hazard class(es) | |
| Class | 2.1 |
| Subsidiary risk | - |
| Label(s) | 2.1 |
| Packing group | Not applicable. |
| Environmental hazards | No. |
| Special precautions for user | Read safety instructions, SDS and emergency procedures before handling. |
| Other information | |
| Passenger and cargo aircraft | Allowed. |
| Cargo aircraft only | Allowed. |

IMDG

| | |
|---|---|
| UN number | UN1950 |
| UN proper shipping name | Aerosols, Flammable |
| Transport hazard class(es) | |
| Class | 2.1 |
| Subsidiary risk | - |
| Label(s) | 2.1 |
| Packing group | Not applicable. |
| Environmental hazards | |
| Marine pollutant | No. |
| EmS | Not available. |
| Special precautions for user | Read safety instructions, SDS and emergency procedures before handling. |
| Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code | Not established. |

DOT



IATA; IMDG



General information

Avoid transport on vehicles where the load space is not separated from the driver's compartment. Ensure vehicle driver is aware of the potential hazards of the load and knows what to do in the event of an accident or an emergency. Before transporting product containers: Ensure that containers are firmly secured. Ensure cylinder valve is closed and not leaking. Ensure valve outlet cap nut or plug (where provided) is correctly fitted. Ensure valve protection device (where provided) is correctly fitted. Ensure adequate ventilation. Ensure compliance with applicable regulations.

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.

TSCA Chemical Action Plans, Chemicals of Concern

Butyl benzyl phthalate (CAS 85-68-7)

Phthalates Action Plan

CERCLA Hazardous Substance List (40 CFR 302.4)

ACETONE (CAS 67-64-1)

Listed.

Butyl benzyl phthalate (CAS 85-68-7)

Listed.

ETHYLBENZENE (CAS 100-41-4)

Listed.

METHYL ETHYL KETONE (CAS 78-93-3)

Listed.

N-BUTANE (CAS 106-97-8)

Listed.

PROPANE (CAS 74-98-6)

Listed.

TOLUENE (CAS 108-88-3)

Listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Immediate Hazard - Yes
Delayed Hazard - Yes
Fire Hazard - Yes
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical No

SARA 313 (TRI reporting)

| Chemical name | CAS number | % by wt. |
|---------------|------------|-----------|
| TOLUENE | 108-88-3 | 10 to <20 |

SARA 313 (TRI reporting)

| Chemical name | CAS number | % by wt. |
|------------------------|------------|-----------|
| 1-METHYL-2-PYRROLIDONE | 872-50-4 | 0.1 to <1 |
| ETHYLBENZENE | 100-41-4 | 0.1 to <1 |

Other federal regulations**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

ETHYLBENZENE (CAS 100-41-4)
TOLUENE (CAS 108-88-3)

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

N-BUTANE (CAS 106-97-8)
PROPANE (CAS 74-98-6)

Safe Drinking Water Act (SDWA) Not regulated.

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

ACETONE (CAS 67-64-1) 6532
METHYL ETHYL KETONE (CAS 78-93-3) 6714
TOLUENE (CAS 108-88-3) 6594

Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))

ACETONE (CAS 67-64-1) 35 %WV
METHYL ETHYL KETONE (CAS 78-93-3) 35 %WV
TOLUENE (CAS 108-88-3) 35 %WV

DEA Exempt Chemical Mixtures Code Number

ACETONE (CAS 67-64-1) 6532
METHYL ETHYL KETONE (CAS 78-93-3) 6714
TOLUENE (CAS 108-88-3) 594

FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace

ACETONE (CAS 67-64-1) Low priority
METHYL ETHYL KETONE (CAS 78-93-3) Low priority

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-METHYL-2-PYRROLIDONE (CAS 872-50-4)
ACETONE (CAS 67-64-1)
Butyl benzyl phthalate (CAS 85-68-7)
ETHYLBENZENE (CAS 100-41-4)
METHYL ETHYL KETONE (CAS 78-93-3)
N-BUTANE (CAS 106-97-8)
TITANIUM DIOXIDE (CAS 13463-67-7)
TOLUENE (CAS 108-88-3)

US. Massachusetts RTK - Substance List

1-METHYL-2-PYRROLIDONE (CAS 872-50-4)
ACETONE (CAS 67-64-1)
Butyl benzyl phthalate (CAS 85-68-7)
ETHYLBENZENE (CAS 100-41-4)
METHYL ETHYL KETONE (CAS 78-93-3)
N-BUTANE (CAS 106-97-8)
PROPANE (CAS 74-98-6)
TITANIUM DIOXIDE (CAS 13463-67-7)
TOLUENE (CAS 108-88-3)

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

1-METHYL-2-PYRROLIDONE (CAS 872-50-4)
ACETONE (CAS 67-64-1)
Butyl benzyl phthalate (CAS 85-68-7)
ETHYLBENZENE (CAS 100-41-4)
METHYL ETHYL KETONE (CAS 78-93-3)
N-BUTANE (CAS 106-97-8)
PROPANE (CAS 74-98-6)
TITANIUM DIOXIDE (CAS 13463-67-7)

TOLUENE (CAS 108-88-3)

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

1-METHYL-2-PYRROLIDONE (CAS 872-50-4)

ACETONE (CAS 67-64-1)

Butyl benzyl phthalate (CAS 85-68-7)

ETHYLBENZENE (CAS 100-41-4)

METHYL ETHYL KETONE (CAS 78-93-3)

N-BUTANE (CAS 106-97-8)

PROPANE (CAS 74-98-6)

TITANIUM DIOXIDE (CAS 13463-67-7)

TOLUENE (CAS 108-88-3)

US. Rhode Island RTK

1-METHYL-2-PYRROLIDONE (CAS 872-50-4)

ACETONE (CAS 67-64-1)

Butyl benzyl phthalate (CAS 85-68-7)

ETHYLBENZENE (CAS 100-41-4)

METHYL ETHYL KETONE (CAS 78-93-3)

N-BUTANE (CAS 106-97-8)

PROPANE (CAS 74-98-6)

TOLUENE (CAS 108-88-3)

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

| | |
|---|---------------------------|
| ETHYL ALCOHOL (CAS 64-17-5) | Listed: April 29, 2011 |
| | Listed: July 1, 1988 |
| ETHYLBENZENE (CAS 100-41-4) | Listed: June 11, 2004 |
| SILICA, CRYSTALLINE QUARTZ (CAS 14808-60-7) | Listed: October 1, 1988 |
| TITANIUM DIOXIDE (CAS 13463-67-7) | Listed: September 2, 2011 |

US - California Proposition 65 - CRT: Listed date/Developmental toxin

| | |
|---------------------------------------|--------------------------|
| 1-METHYL-2-PYRROLIDONE (CAS 872-50-4) | Listed: June 15, 2001 |
| Butyl benzyl phthalate (CAS 85-68-7) | Listed: December 2, 2005 |
| DIBUTYL PHTHALATE (CAS 84-74-2) | Listed: December 2, 2005 |
| ETHYL ALCOHOL (CAS 64-17-5) | Listed: October 1, 1987 |
| TOLUENE (CAS 108-88-3) | Listed: January 1, 1991 |

US - California Proposition 65 - CRT: Listed date/Female reproductive toxin

| | |
|---------------------------------|--------------------------|
| DIBUTYL PHTHALATE (CAS 84-74-2) | Listed: December 2, 2005 |
| TOLUENE (CAS 108-88-3) | Listed: August 7, 2009 |

US - California Proposition 65 - CRT: Listed date/Male reproductive toxin

| | |
|---------------------------------|--------------------------|
| DIBUTYL PHTHALATE (CAS 84-74-2) | Listed: December 2, 2005 |
|---------------------------------|--------------------------|

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) | No |
| China | Inventory of Existing Chemical Substances in China (IECSC) | No |
| Europe | European Inventory of Existing Commercial Chemical 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) | No |
| 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 04-13-2015
Revision date 04-29-2019
Version # 04
HMIS® ratings Health: 2*
Flammability: 3
Physical hazard: 0

NFPA ratings Health: 2
Flammability: 3
Instability: 0

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Revision information This document has undergone significant changes and should be reviewed in its entirety.