# SAFETY DATA SHEET

## 1. Identification

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|---|---|
| **Product identifier** | **1990 SATIN BLACK - HIGH TEMP** |
| **Other means of identification** | |
| **Product code** | 1A62H290 |
| **Recommended use** | Stove paint. |
| **Recommended restrictions** | None known. |

**Manufacturer/Importer/Supplier/Distributor information**

| | |
|---|---|
| **Company Name** | FORREST Technical Coatings |
| **Address** | 1011 McKinley Street |
| | P.O. Box 22110 |
| **City** | Eugene |
| **State** | OR |
| **Zip** | 97402 |
| **Country** | United States |
| **Telephone** | 1 (541) 342-1821 |
| **Contact person** | EHS Department |
| **Website** | www.forrestpaint.com |
| **E-mail** | info@forrestpaint.com |
| **Emergency phone number** | 1 (800) 424-9300 (CHEMTREC - Contract # 8730) USA & Canada |
| | +1 703-527-3887 (CHEMTREC - Contract # 8730) Outside USA and Canada |

## 2. Hazard(s) identification

| | | |
|---|---|---|
| **Physical hazards** | Flammable aerosols | Category 1 |
| | Gases under pressure | Compressed gas |
| **Health hazards** | Skin corrosion/irritation | Category 2 |
| | Serious eye damage/eye irritation | Category 2A |
| | Carcinogenicity | Category 2 |
| | Reproductive toxicity | Category 1A |
| | Specific target organ toxicity, single exposure | Category 3 narcotic effects |
| | Specific target organ toxicity, repeated exposure | Category 1 (central nervous system) |
| | Aspiration hazard | Category 1 |
| **Environmental hazards** | Hazardous to the aquatic environment, acute hazard | Category 2 |
| | Hazardous to the aquatic environment, long-term hazard | Category 4 |
| **OSHA defined hazards** | Not classified. | |

**Label elements**

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|---|---|
| **Signal word** | Danger |
| **Hazard statement** | Extremely flammable aerosol. Contains gas under pressure; may explode if heated. May be fatal if swallowed and enters airways. Causes skin irritation. Causes serious eye irritation. May cause drowsiness or dizziness. Suspected of causing cancer. May damage fertility or the unborn child. Causes damage to organs (central nervous system) through prolonged or repeated exposure. Toxic to aquatic life. May cause long lasting harmful effects to aquatic life. |

**Precautionary statement**

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|---|---|
| **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 gas. Do not breathe mist/vapors. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection. |
| **Response** | If swallowed: Immediately call a poison center/doctor. Do NOT induce vomiting. 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. If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash it 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. 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** | 35.6% of the mixture consists of component(s) of unknown acute oral toxicity. 60.13% of the mixture consists of component(s) of unknown acute dermal toxicity. 36.66% of the mixture consists of component(s) of unknown acute inhalation toxicity. 64.25% of the mixture consists of component(s) of unknown acute hazards to the aquatic environment. 64.25% 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 | 20-35 |
| TOLUENE | | 108-88-3 | 20-35 |
| BUTANE | | 106-97-8 | 10-25 |
| PROPANE | | 74-98-6 | 10-25 |
| MANGANESE FERRITE SPINEL | | 75864-23-2 | 1-10 |
| XYLENE | | 1330-20-7 | 1-10 |
| COPPER CHROMITE BLACK SPINEL | | 68186-91-4 | 1 - 2.5 |
| DIMETHYL CARBONATE | | 616-38-6 | 1 - 2.5 |
| MINERAL SPIRITS | | 8052-41-3 | 1 - 2.5 |
| n-BUTYL ALCOHOL | | 71-36-3 | 1 - 2.5 |
| CARBON BLACK | | 1333-86-4 | 0- <1 |
| ETHYL BENZENE | | 100-41-4 | 0- <1 |
| Other components below reportable levels | | | 1-10 |

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

**Composition comments** Occupational Exposure Limits for constituents are listed in Section 8.

## 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 immediately and wash skin with soap and water. In case of eczema or other skin disorders: Seek medical attention and take along these instructions. 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. Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. |
| **Most important symptoms/effects, acute and delayed** | Aspiration may cause pulmonary edema and pneumonitis. 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. May cause an allergic skin reaction. Dermatitis. Rash. Prolonged exposure may cause chronic effects. |

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|---|---|
| **Indication of immediate medical attention and special treatment needed** | Provide general supportive measures and treat symptomatically. Keep victim warm. 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. Wash contaminated clothing before reuse. |

## 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** | None known. |
| **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. Cool containers exposed to flames with water until well after the fire is out. In the event of fire and/or explosion do not breathe fumes. |
| **General fire hazards** | Extremely 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/vapors. Do not breathe gas. 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. Keep combustibles (wood, paper, oil, etc.) away from spilled material. Prevent product from entering drains. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.<br><br>Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Put material in suitable, covered, labeled containers. 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

| | |
|---|---|
| **Precautions for safe handling** | Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. 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 containers from physical damage; do not drag, roll, slide, or drop. When moving containers, even for short distances, use a cart (trolley, hand truck, etc.) designed to transport containers. 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/vapors. Do not breathe gas. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. When using, do not eat, drink or smoke. 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. Wash hands thoroughly after handling. 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. Store in tightly closed container. Store in a well-ventilated place. Stored containers should be periodically checked for general condition and leakage. Keep out of the reach of children. Store away from incompatible materials (see Section 10 of the SDS).

## 8. Exposure controls/personal protection

**Occupational exposure limits**

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

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

| Components | Type | Value |
|---|---|---|
| ACETONE (CAS 67-64-1) | PEL | 2400 mg/m3 |
| | | 1000 ppm |
| CARBON BLACK (CAS 1333-86-4) | PEL | 3.5 mg/m3 |
| ETHYL BENZENE (CAS 100-41-4) | PEL | 435 mg/m3 |
| | | 100 ppm |
| MANGANESE FERRITE SPINEL (CAS 75864-23-2) | Ceiling | 5 mg/m3 |
| MINERAL SPIRITS (CAS 8052-41-3) | PEL | 2900 mg/m3 |
| | | 500 ppm |
| n-BUTYL ALCOHOL (CAS 71-36-3) | PEL | 300 mg/m3 |
| | | 100 ppm |
| PROPANE (CAS 74-98-6) | PEL | 1800 mg/m3 |
| | | 1000 ppm |
| XYLENE (CAS 1330-20-7) | PEL | 435 mg/m3 |
| | | 100 ppm |

**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 | Form |
|---|---|---|---|
| ACETONE (CAS 67-64-1) | STEL | 500 ppm | |
| | TWA | 250 ppm | |
| BUTANE (CAS 106-97-8) | STEL | 1000 ppm | |
| CARBON BLACK (CAS 1333-86-4) | TWA | 3 mg/m3 | Inhalable fraction. |
| COPPER CHROMITE BLACK SPINEL (CAS 68186-91-4) | TWA | 1 mg/m3 | Dust and mist. |
| | | 0.2 mg/m3 | Fume. |
| ETHYL BENZENE (CAS 100-41-4) | TWA | 20 ppm | |
| MANGANESE FERRITE SPINEL (CAS 75864-23-2) | TWA | 0.1 mg/m3 | Inhalable fraction. |
| | | 0.02 mg/m3 | Respirable fraction. |

**US. ACGIH Threshold Limit Values**

| Components | Type | Value | Form |
|---|---|---|---|
| MINERAL SPIRITS (CAS 8052-41-3) | TWA | 100 ppm | |
| n-BUTYL ALCOHOL (CAS 71-36-3) | TWA | 20 ppm | |
| TOLUENE (CAS 108-88-3) | TWA | 20 ppm | |
| XYLENE (CAS 1330-20-7) | STEL | 150 ppm | |
| | TWA | 100 ppm | |

**US. NIOSH: Pocket Guide to Chemical Hazards**

| Components | Type | Value | Form |
|---|---|---|---|
| ACETONE (CAS 67-64-1) | TWA | 590 mg/m3 | |
| | | 250 ppm | |
| BUTANE (CAS 106-97-8) | TWA | 1900 mg/m3 | |
| | | 800 ppm | |
| CARBON BLACK (CAS 1333-86-4) | TWA | 0.1 mg/m3 | |
| ETHYL BENZENE (CAS 100-41-4) | STEL | 545 mg/m3 | |
| | | 125 ppm | |
| | TWA | 435 mg/m3 | |
| | | 100 ppm | |
| MANGANESE FERRITE SPINEL (CAS 75864-23-2) | STEL | 3 mg/m3 | Fume. |
| | TWA | 1 mg/m3 | Fume. |
| MINERAL SPIRITS (CAS 8052-41-3) | Ceiling | 1800 mg/m3 | |
| | TWA | 350 mg/m3 | |
| n-BUTYL ALCOHOL (CAS 71-36-3) | Ceiling | 150 mg/m3 | |
| | | 50 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 | |

**Biological limit values**

**ACGIH Biological Exposure Indices**

| Components | Value | Determinant | Specimen | Sampling Time |
|---|---|---|---|---|
| ACETONE (CAS 67-64-1) | 25 mg/l | Acetone | Urine | * |
| ETHYL BENZENE (CAS 100-41-4) | 0.15 g/g | Sum of mandelic acid and phenylglyoxylic acid | Creatinine in 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 | * |
| XYLENE (CAS 1330-20-7) | 1.5 g/g | Methylhippuric acids | Creatinine in urine | * |

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

**Exposure guidelines**

**US - California OELs: Skin designation**

| | |
|---|---|
| n-BUTYL ALCOHOL (CAS 71-36-3) | Can be absorbed through the skin. |
| TOLUENE (CAS 108-88-3) | Can be absorbed through the skin. |

**US - Minnesota Haz Subs: Skin designation applies**

| | |
|---|---|
| n-BUTYL ALCOHOL (CAS 71-36-3) | Skin designation applies. |
| TOLUENE (CAS 108-88-3) | Skin designation applies. |

**US - Tennessee OELs: Skin designation**

| | |
|---|---|
| n-BUTYL ALCOHOL (CAS 71-36-3) | Can be absorbed through the skin. |

**US NIOSH Pocket Guide to Chemical Hazards: Skin designation**

| | |
|---|---|
| n-BUTYL ALCOHOL (CAS 71-36-3) | Can be absorbed through the skin. |

**Appropriate engineering controls** Good general ventilation 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. Provide eyewash station and safety shower.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection** Applicable for industrial settings only. Chemical respirator with organic vapor cartridge and full facepiece.

**Skin protection**

**Hand protection** Applicable for industrial settings only. Wear appropriate chemical resistant gloves.

**Other** Applicable for industrial settings only. Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.

**Respiratory protection** Applicable for industrial settings only. Chemical respirator with organic vapor cartridge and full facepiece.

**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** | Aerosol. |
| **Physical state** | Liquid, Gas. |
| **Form** | Aerosol. Compressed gas. |
| **Color** | Black. |
| **Odor** | Solvent. |
| **Odor threshold** | Not available. |
| **pH** | Not available. |
| **Melting point/freezing point** | Not available. |
| **Initial boiling point and boiling range** | Not available. |
| **Flash point** | -133.6 °F (-92.0 °C) |
| **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** | 1570.46 hPa estimated |
| **Vapor density** | Not available. |
| **Relative density** | Not available. |

| | |
|---|---|
| **Solubility(ies)** | |
| **Solubility (water)** | 0 % |
| **Partition coefficient (n-octanol/water)** | Not available. |
| **Auto-ignition temperature** | Not available. |
| **Decomposition temperature** | Not available. |
| **Viscosity** | Not available. |
| **Other information** | |
| **Density** | 6.42 lb/gal |
| **Explosive properties** | Not explosive. |
| **Oxidizing properties** | Not oxidizing. |
| **Percent volatile** | 89.53 %w/w |
| **Specific gravity** | 0.77 |
| **VOC** | 641.77 g/l COATING<br>455.02 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 reactions** | Hazardous polymerization does not occur. |
| **Conditions to avoid** | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials. |
| **Incompatible materials** | Strong acids. Strong oxidizing agents. Chlorine. Fluorine. Halogens. Nitrates. |
| **Hazardous decomposition products** | No hazardous decomposition products are known. |

## 11. Toxicological information

**Information on likely routes of exposure**

| | |
|---|---|
| **Inhalation** | May cause drowsiness and dizziness. Headache. Nausea, vomiting. Prolonged inhalation may be harmful. |
| **Skin contact** | Causes skin irritation. |
| **Eye contact** | Causes serious eye irritation. |
| **Ingestion** | Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia. |
| **Symptoms related to the physical, chemical and toxicological characteristics** | Aspiration may cause pulmonary edema and pneumonitis. May cause drowsiness and dizziness. Narcosis. Headache. Nausea, vomiting. Behavioral changes. Decrease in motor functions. 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** May be fatal if swallowed and enters airways.

| Components | Species | Test Results |
|---|---|---|
| ACETONE (CAS 67-64-1) | | |
| **Acute** | | |
| **Dermal** | | |
| LD50 | Guinea pig, rabbit, rat | 7400 mg/kg |
| **Inhalation** | | |
| LD50 | Rat | 7600 mg/m3, 4 hours |
| **Oral** | | |
| LD50 | Rat | 5800 mg/kg |
| n-BUTYL ALCOHOL (CAS 71-36-3) | | |
| **Acute** | | |
| **Dermal** | | |
| LD50 | Rabbit | 3430 mg/kg |

| Components | Species | Test Results |
|---|---|---|
| **Inhalation** | | |
| LC50 | Rat | 17.76 mg/l |
| **Oral** | | |
| LD50 | Rat | 2292 mg/kg |
| TOLUENE (CAS 108-88-3) | | |
| **Acute** | | |
| **Dermal** | | |
| LD50 | | 5000 mg/kg |
| **Inhalation** | | |
| LC50 | Rat | 20 mg/l |
| **Oral** | | |
| LD50 | | 5000 mg/kg |
| XYLENE (CAS 1330-20-7) | | |
| **Acute** | | |
| **Dermal** | | |
| LD50 | | 12130 mg/kg |
| **Inhalation** | | |
| LC50 | | 27120 mg/m3 |
| **Oral** | | |
| LD50 | | 3523 mg/kg |

**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**

| | |
|---|---|
| CARBON BLACK (CAS 1333-86-4) | 2B Possibly carcinogenic to humans. |
| CHROMIUM COMPOUNDS (CAS N/A) | 3 Not classifiable as to carcinogenicity to humans. |
| ETHYL BENZENE (CAS 100-41-4) | 2B Possibly carcinogenic to humans. |
| MINERAL SPIRITS (CAS 8052-41-3) | 3 Not classifiable as to carcinogenicity to humans. |
| TOLUENE (CAS 108-88-3) | 3 Not classifiable as to carcinogenicity to humans. |
| XYLENE (CAS 1330-20-7) | 3 Not classifiable as to carcinogenicity to humans. |

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)**

Not regulated.

**US. National Toxicology Program (NTP) Report on Carcinogens**

Not listed.

**Reproductive toxicity** Components in this product have been shown to cause birth defects and reproductive disorders in laboratory animals. May damage fertility or the unborn child.

**Specific target organ toxicity - single exposure** May cause drowsiness and dizziness.

**Specific target organ toxicity - repeated exposure** Causes damage to organs (central nervous system) through prolonged or repeated exposure.

**Aspiration hazard** May be fatal if swallowed and enters airways.

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

## 12. Ecological information

**Ecotoxicity** Toxic to aquatic life. May cause long lasting harmful effects to aquatic life.

| Components | | Species | Test Results |
|---|---|---|---|
| ACETONE (CAS 67-64-1) | | | |
| **Aquatic** | | | |
| Crustacea | NOEC | Freshwater invertebrate | > 79 mg/l |
| Fish | LC50 | Freshwater fish | 5540 mg/l |
| BUTANE (CAS 106-97-8) | | | |
| **Aquatic** | | | |
| Algae | EC50 | Freshwater algae | > 7 mg/l |
| Crustacea | LC50 | Freshwater invertebrate | > 14 mg/l |
| Fish | LC50 | Freshwater fish | > 24 mg/l |
| ETHYL BENZENE (CAS 100-41-4) | | | |
| **Aquatic** | | | |
| Crustacea | EC50 | Water flea (Daphnia magna) | 1.37 - 4.4 mg/l, 48 hours |
| Fish | LC50 | Bluegill (Lepomis macrochirus) | 7.711 - 9.591 mg/l, 96 hours |
| | | Fathead minnow (Pimephales promelas) | 11.5 - 12.7 mg/l, 96 hours |
| n-BUTYL ALCOHOL (CAS 71-36-3) | | | |
| **Aquatic** | | | |
| Algae | EC50 | Freshwater algae | 225 mg/l |
| | NOEC | Freshwater algae | 129 mg/l |
| Crustacea | LC50 | Water flea (Daphnia magna) | 1328 mg/l |
| | NOEC | Water flea (Daphnia magna) | 4.1 mg/l |
| Fish | LC50 | Freshwater fish | 1376 mg/l |
| TOLUENE (CAS 108-88-3) | | | |
| **Aquatic** | | | |
| Algae | LC50 | Freshwater algae | 134 mg/l |
| | NOEC | Freshwater algae | 10 mg/l |
| Crustacea | LC50 | Water flea (Ceriodaphnia dubia) | 3.78 mg/l, 48 hours |
| | NOEC | Water flea (Ceriodaphnia dubia) | 0.74 mg/l |
| Fish | LC50 | Freshwater fish | 5.5 mg/l |
| | NOEC | Freshwater fish | 1.4 mg/l |
| XYLENE (CAS 1330-20-7) | | | |
| **Aquatic** | | | |
| Algae | EC50 | Freshwater algae | 1.3 mg/l |
| | NOEC | Freshwater algae | 0.44 mg/l |
| Crustacea | EC50 | Freshwater invertebrate | 1 mg/l |
| | NOEC | Freshwater invertebrate | 0.96 mg/l |
| Fish | LC50 | Bluegill (Lepomis macrochirus) | 10.464 - 13.762 mg/l, 96 hours |
| | | Freshwater fish | 2.6 mg/l |
| | NOEC | Freshwater fish | > 1.3 mg/l |

**Persistence and degradability** No data is available on the degradability of any ingredients in the mixture.

**Bioaccumulative potential**

**Partition coefficient n-octanol / water (log Kow)**

| | |
|---|---|
| ACETONE | -0.24 |
| BUTANE | 2.89 |
| ETHYL BENZENE | 3.15 |
| MINERAL SPIRITS | 3.16 - 7.15 |
| n-BUTYL ALCOHOL | 1 |
| PROPANE | 2.36 |
| TOLUENE | 2.73 |
| XYLENE | 3.12 - 3.2 |

**Mobility in soil** No data available.

| | |
|---|---|
| **Other adverse effects** | The product contains volatile organic compounds which have a photochemical ozone creation potential. |

## 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. Incinerate the material under controlled conditions in an approved incinerator. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. If discarded, this product is considered a RCRA ignitable waste, D001. 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** | D001: Waste Flammable material with a flash point <140 F<br>D002: Waste Corrosive material [pH <=2 or =>12.5, or corrosive to steel]<br>D007: Waste Chromium<br>D018: Waste Benzene<br>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**

| | |
|---|---|
| **UN number** | UN1950 |
| **UN proper shipping name** | Aerosols, flammable, Limited Quantity |
| **Transport hazard class(es)** | |
| **Class** | 2.1 |
| **Subsidiary risk** | - |
| **Label(s)** | 2.1 |
| **Packing group** | Not available. |
| **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**

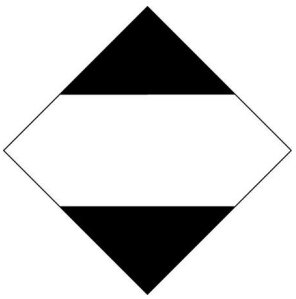
| | |
|---|---|
| **UN number** | ID8000 |
| **UN proper shipping name** | Consumer commodity, Limited Quantity |
| **Transport hazard class(es)** | |
| **Class** | 9 |
| **Subsidiary risk** | ORM-D |
| **Packing group** | Not available. |
| **Environmental hazards** | No. |
| **Special precautions for user** | Read safety instructions, SDS and emergency procedures before handling. |
| **Other information** | |
| **Passenger and cargo aircraft** | Allowed with restrictions. |
| **Cargo aircraft only** | Allowed with restrictions. |

**IMDG**

| | |
|---|---|
| **UN number** | UN1950 |
| **UN proper shipping name** | Aerosols, flammable, Limited Quantity |
| **Transport hazard class(es)** | |
| **Class** | 2.1 |
| **Subsidiary risk** | - |
| **Packing group** | Not available. |
| **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; IMDG**



**IATA**

**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.

**Toxic Substances Control Act (TSCA)**

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

Not regulated.

**CERCLA Hazardous Substance List (40 CFR 302.4)**

| | |
|---|---|
| ACETONE (CAS 67-64-1) | Listed. |
| BUTANE (CAS 106-97-8) | Listed. |
| CHROMIUM COMPOUNDS (CAS N/A) | Listed. |
| COPPER COMPOUNDS (CAS N/A) | Listed. |
| DIMETHYL CARBONATE (CAS 616-38-6) | Listed. |
| ETHYL BENZENE (CAS 100-41-4) | Listed. |
| MANGANESE FERRITE SPINEL (CAS 75864-23-2) | Listed. |
| n-BUTYL ALCOHOL (CAS 71-36-3) | Listed. |
| PROPANE (CAS 74-98-6) | Listed. |
| TOLUENE (CAS 108-88-3) | Listed. |
| XYLENE (CAS 1330-20-7) | Listed. |

**SARA 304 Emergency release notification**

Not regulated.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)**

Not regulated.

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

**SARA 302 Extremely hazardous substance**

Not listed.

**SARA 311/312 Hazardous chemical** No (Exempt)

**SARA 313 (TRI reporting)**

| Chemical name | CAS number | % by wt. |
|---|---|---|
| ETHYL BENZENE | 100-41-4 | 0- <1 |
| MANGANESE FERRITE SPINEL | 75864-23-2 | 1-10 |
| n-BUTYL ALCOHOL | 71-36-3 | 1 - 2.5 |
| TOLUENE | 108-88-3 | 20-35 |
| XYLENE | 1330-20-7 | 1-10 |
| CHROMIUM COMPOUNDS | N/A | 1.0226 |
| COPPER COMPOUNDS | N/A | 1.0226 |

**Other federal regulations**

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

CHROMIUM COMPOUNDS (CAS N/A)
ETHYL BENZENE (CAS 100-41-4)
MANGANESE FERRITE SPINEL (CAS 75864-23-2)
TOLUENE (CAS 108-88-3)
XYLENE (CAS 1330-20-7)

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

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

**Safe Drinking Water Act (SDWA)** Contains component(s) regulated under the Safe Drinking Water Act.

**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 |
| 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 |
| TOLUENE (CAS 108-88-3) | 35 %WV |

**DEA Exempt Chemical Mixtures Code Number**

| | |
|---|---|
| ACETONE (CAS 67-64-1) | 6532 |
| 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 |
| n-BUTYL ALCOHOL (CAS 71-36-3) | Low priority |

**US state regulations**

**California Proposition 65**

**WARNING:** This product can expose you to chemicals including BENZENE, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

**California Proposition 65 - CRT: Listed date/Carcinogenic substance**

| | |
|---|---|
| BENZENE (CAS 71-43-2) | Listed: February 27, 1987 |
| CARBON BLACK (CAS 1333-86-4) | Listed: February 21, 2003 |
| CRYSTALLINE QUARTZ SILICA (CAS 14808-60-7) | Listed: October 1, 1988 |
| CUMENE (CAS 98-82-8) | Listed: April 6, 2010 |
| ETHYL BENZENE (CAS 100-41-4) | Listed: June 11, 2004 |

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

| | |
|---|---|
| BENZENE (CAS 71-43-2) | Listed: December 26, 1997 |
| TOLUENE (CAS 108-88-3) | Listed: January 1, 1991 |

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

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

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

ACETONE (CAS 67-64-1)
BUTANE (CAS 106-97-8)
CARBON BLACK (CAS 1333-86-4)
ETHYL BENZENE (CAS 100-41-4)
MINERAL SPIRITS (CAS 8052-41-3)
TOLUENE (CAS 108-88-3)
XYLENE (CAS 1330-20-7)

**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 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 |
| Taiwan | Taiwan Chemical Substance Inventory (TCSI) | No |
| United States & Puerto Rico | Toxic Substances Control Act (TSCA) Inventory | Yes |

*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** 10-01-2015

**Revision date** 01-23-2020

**Version #** 11

**HMIS® ratings**
Health: 3*
Flammability: 4
Physical hazard: 0

**NFPA ratings**
Health: 2
Flammability: 4
Instability: 0

**NFPA ratings**

**Disclaimer** The information and recommendations in this safety data sheet are, to the best of our knowledge, accurate as of the date of issue. Nothing herein shall be deemed to create any warranty, expressed or implied. It is the responsibility of the user to determine the applicability of this information and the suitability of the material or product for any particular purpose.

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