# SAFETY DATA SHEET

DE1650

## Section 1. Identification

**Product name** : DUPLI-COLOR™ Engine Enamel with Ceramic Cast Coat Aluminum

**Product code** : DE1650

**Other means of identification** : Not available.

**Product type** : Aerosol.

**Relevant identified uses of the substance or mixture and uses advised against**

Paint or paint related material.

## Section 2. Hazards identification

**OSHA/HCS status** : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

**Classification of the substance or mixture** : FLAMMABLE AEROSOLS - Category 1
GASES UNDER PRESSURE - Compressed gas
SKIN CORROSION/IRRITATION - Category 2
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
CARCINOGENICITY - Category 2
TOXIC TO REPRODUCTION (Unborn child) - Category 1B
TOXIC TO REPRODUCTION (Fertility) - Category 2
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
ASPIRATION HAZARD - Category 1

Percentage of the mixture consisting of ingredient(s) of unknown oral toxicity: 24.3%
Percentage of the mixture consisting of ingredient(s) of unknown dermal toxicity: 79.2%
Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 75.5%

**GHS label elements**

**Hazard pictograms** :

**Signal word** : Danger

## Section 2. Hazards identification

**Hazard statements** : Extremely flammable aerosol.
Contains gas under pressure; may explode if heated.
Causes serious eye irritation.
Causes skin irritation.
May damage the unborn child.
Suspected of damaging fertility.
Suspected of causing cancer.
May be fatal if swallowed and enters airways.
May cause respiratory irritation.
May cause drowsiness or dizziness.
May cause damage to organs through prolonged or repeated exposure.

**Precautionary statements**

**General** : Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.

**Prevention** : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves. Wear eye or face protection. Wear protective clothing. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Use only outdoors or in a well-ventilated area. Do not breathe dust or mist. Wash hands thoroughly after handling. Pressurized container: Do not pierce or burn, even after use.

**Response** : Get medical attention if you feel unwell. IF exposed or concerned: Get medical attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF SWALLOWED: Immediately call a POISON CENTER or physician. Do NOT induce vomiting. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

**Storage** : Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. Store in a well-ventilated place.

**Disposal** : Dispose of contents and container in accordance with all local, regional, national and international regulations.

**Supplemental label elements** DELAYED EFFECTS FROM LONG TERM OVEREXPOSURE. Contains solvents which can cause permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

Please refer to the SDS for additional information. Keep out of reach of children. Keep upright in a cool, dry place. Do not discard empty can in trash compactor.

**Hazards not otherwise classified** : DANGER: Rags, steel wool, other waste soaked with this product, and sanding residue may spontaneously catch fire if improperly discarded. Immediately place rags, steel wool, other waste soaked with this product, and sanding residue in a sealed, water-filled, metal container. Dispose of in accordance with local fire regulations.

## Section 3. Composition/information on ingredients

**Substance/mixture** : Mixture

**Other means of identification** : Not available.

**CAS number/other identifiers**

# Section 3. Composition/information on ingredients

| Ingredient name | % by weight | CAS number |
|---|---|---|
| Acetone | ≥25 - ≤50 | 67-64-1 |
| Propane | ≥10 - ≤25 | 74-98-6 |
| Butane | ≥10 - ≤25 | 106-97-8 |
| Isopropyl Acetate | ≤10 | 108-21-4 |
| Xylene mixed isomers | ≤5 | 1330-20-7 |
| Cellulose Nitrate | ≤5 | 9004-70-0 |
| n-Butyl Acetate | ≤5 | 123-86-4 |
| Ethyl 3-Ethoxypropionate | ≤3 | 763-69-9 |
| Methyl Ethyl Ketone | ≤3 | 78-93-3 |
| 2-Propanol | ≤3 | 67-63-0 |
| Methyl Isobutyl Ketone | ≤3 | 108-10-1 |
| Lt. Aliphatic Hydrocarbon Solvent | ≤3 | 64742-89-8 |
| Amyl Acetate | ≤3 | 628-63-7 |
| Ethylbenzene | <1 | 100-41-4 |
| Butyl Benzyl Phthalate | <1 | 85-68-7 |
| Med. Aliphatic Hydrocarbon Solvent | <1 | 64742-88-7 |
| Titanium Dioxide | ≤1 | 13463-67-7 |

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

**There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.**

**Occupational exposure limits, if available, are listed in Section 8.**

# Section 4. First aid measures

## Description of necessary first aid measures

**Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.

**Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

**Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.

**Ingestion** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

## Most important symptoms/effects, acute and delayed

### Potential acute health effects

**Eye contact** : Causes serious eye irritation.

# Section 4. First aid measures

**Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.

**Skin contact** : Causes skin irritation.

**Ingestion** : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

## Over-exposure signs/symptoms

**Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness

**Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
reduced fetal weight
increase in fetal deaths
skeletal malformations

**Skin contact** : Adverse symptoms may include the following:
irritation
redness
reduced fetal weight
increase in fetal deaths
skeletal malformations

**Ingestion** : Adverse symptoms may include the following:
nausea or vomiting
reduced fetal weight
increase in fetal deaths
skeletal malformations

## Indication of immediate medical attention and special treatment needed, if necessary

**Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

**Specific treatments** : No specific treatment.

**Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

**See toxicological information (Section 11)**

# Section 5. Fire-fighting measures

## Extinguishing media

**Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.

**Unsuitable extinguishing media** : None known.

**Specific hazards arising from the chemical** : Extremely flammable aerosol. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Gas may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back, causing fire or explosion. Bursting aerosol containers may be propelled from a fire at high speed.

## Section 5. Fire-fighting measures

**Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides

**Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

**Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

**For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. In the case of aerosols being ruptured, care should be taken due to the rapid escape of the pressurized contents and propellant. If a large number of containers are ruptured, treat as a bulk material spillage according to the instructions in the clean-up section. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

**For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

**Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

### Methods and materials for containment and cleaning up

**Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

**Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## Section 7. Handling and storage

### Precautions for safe handling

**Protective measures** : Put on appropriate personal protective equipment (see Section 8). Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not swallow. Avoid breathing gas. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Empty containers retain product residue and can be hazardous.

# Section 7. Handling and storage

**Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

**Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Protect from sunlight. Store locked up. Eliminate all ignition sources. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

# Section 8. Exposure controls/personal protection

## Control parameters

### Occupational exposure limits (OSHA United States)

| Ingredient name | Exposure limits |
|---|---|
| Acetone | **ACGIH TLV (United States, 3/2017).**<br>TWA: 250 ppm 8 hours.<br>STEL: 500 ppm 15 minutes.<br>**NIOSH REL (United States, 10/2016).**<br>TWA: 250 ppm 10 hours.<br>TWA: 590 mg/m³ 10 hours.<br>**OSHA PEL (United States, 6/2016).**<br>TWA: 1000 ppm 8 hours.<br>TWA: 2400 mg/m³ 8 hours. |
| Propane | **NIOSH REL (United States, 10/2016).**<br>TWA: 1000 ppm 10 hours.<br>TWA: 1800 mg/m³ 10 hours.<br>**OSHA PEL (United States, 6/2016).**<br>TWA: 1000 ppm 8 hours.<br>TWA: 1800 mg/m³ 8 hours.<br>**ACGIH TLV (United States, 3/2017). Oxygen Depletion [Asphyxiant].** |
| Butane | **NIOSH REL (United States, 10/2016).**<br>TWA: 800 ppm 10 hours.<br>TWA: 1900 mg/m³ 10 hours.<br>**ACGIH TLV (United States, 3/2017).**<br>STEL: 1000 ppm 15 minutes. |
| Isopropyl Acetate | **ACGIH TLV (United States, 3/2017).**<br>TWA: 100 ppm 8 hours.<br>STEL: 200 ppm 15 minutes.<br>**OSHA PEL (United States, 6/2016).**<br>TWA: 250 ppm 8 hours.<br>TWA: 950 mg/m³ 8 hours. |
| Xylene mixed isomers | **ACGIH TLV (United States, 3/2017).**<br>TWA: 100 ppm 8 hours.<br>TWA: 434 mg/m³ 8 hours.<br>STEL: 150 ppm 15 minutes.<br>STEL: 651 mg/m³ 15 minutes.<br>**OSHA PEL (United States, 6/2016).**<br>TWA: 100 ppm 8 hours.<br>TWA: 435 mg/m³ 8 hours. |
| Cellulose Nitrate | None. |
| n-Butyl Acetate | **NIOSH REL (United States, 10/2016).**<br>TWA: 150 ppm 10 hours.<br>TWA: 710 mg/m³ 10 hours.<br>STEL: 200 ppm 15 minutes.<br>STEL: 950 mg/m³ 15 minutes.<br>**OSHA PEL (United States, 6/2016).** |

## Section 8. Exposure controls/personal protection

| | |
|---|---|
| | TWA: 150 ppm 8 hours.<br>TWA: 710 mg/m³ 8 hours.<br>**ACGIH TLV (United States, 3/2017).**<br>STEL: 150 ppm 15 minutes.<br>TWA: 50 ppm 8 hours. |
| Ethyl 3-Ethoxypropionate | None. |
| Methyl Ethyl Ketone | **ACGIH TLV (United States, 3/2017).**<br>TWA: 200 ppm 8 hours.<br>TWA: 590 mg/m³ 8 hours.<br>STEL: 300 ppm 15 minutes.<br>STEL: 885 mg/m³ 15 minutes.<br>**NIOSH REL (United States, 10/2016).**<br>TWA: 200 ppm 10 hours.<br>TWA: 590 mg/m³ 10 hours.<br>STEL: 300 ppm 15 minutes.<br>STEL: 885 mg/m³ 15 minutes.<br>**OSHA PEL (United States, 6/2016).**<br>TWA: 200 ppm 8 hours.<br>TWA: 590 mg/m³ 8 hours. |
| 2-Propanol | **ACGIH TLV (United States, 3/2017).**<br>TWA: 200 ppm 8 hours.<br>STEL: 400 ppm 15 minutes.<br>**NIOSH REL (United States, 10/2016).**<br>TWA: 400 ppm 10 hours.<br>TWA: 980 mg/m³ 10 hours.<br>STEL: 500 ppm 15 minutes.<br>STEL: 1225 mg/m³ 15 minutes.<br>**OSHA PEL (United States, 6/2016).**<br>TWA: 400 ppm 8 hours.<br>TWA: 980 mg/m³ 8 hours. |
| Methyl Isobutyl Ketone | **ACGIH TLV (United States, 3/2017).**<br>TWA: 20 ppm 8 hours.<br>STEL: 75 ppm 15 minutes.<br>**NIOSH REL (United States, 10/2016).**<br>TWA: 50 ppm 10 hours.<br>TWA: 205 mg/m³ 10 hours.<br>STEL: 75 ppm 15 minutes.<br>STEL: 300 mg/m³ 15 minutes.<br>**OSHA PEL (United States, 6/2016).**<br>TWA: 100 ppm 8 hours.<br>TWA: 410 mg/m³ 8 hours. |
| Lt. Aliphatic Hydrocarbon Solvent | None. |
| Amyl Acetate | **NIOSH REL (United States, 10/2016).**<br>TWA: 100 ppm 10 hours.<br>TWA: 525 mg/m³ 10 hours.<br>**ACGIH TLV (United States, 3/2017).**<br>TWA: 50 ppm 8 hours.<br>STEL: 100 ppm 15 minutes.<br>**OSHA PEL (United States, 6/2016).**<br>TWA: 100 ppm 8 hours.<br>TWA: 525 mg/m³ 8 hours. |
| Ethylbenzene | **ACGIH TLV (United States, 3/2017).**<br>TWA: 20 ppm 8 hours.<br>**NIOSH REL (United States, 10/2016).**<br>TWA: 100 ppm 10 hours.<br>TWA: 435 mg/m³ 10 hours.<br>STEL: 125 ppm 15 minutes.<br>STEL: 545 mg/m³ 15 minutes.<br>**OSHA PEL (United States, 6/2016).**<br>TWA: 100 ppm 8 hours.<br>TWA: 435 mg/m³ 8 hours. |

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|---|---|
| Butyl Benzyl Phthalate | None. |
| Med. Aliphatic Hydrocarbon Solvent | **OSHA PEL (United States, 6/2016).**<br>TWA: 100 ppm 8 hours.<br>TWA: 400 mg/m³ 8 hours. |
| Titanium Dioxide | **ACGIH TLV (United States, 3/2017).**<br>TWA: 10 mg/m³ 8 hours.<br>**OSHA PEL (United States, 6/2016).**<br>TWA: 15 mg/m³ 8 hours. Form: Total dust |

**Occupational exposure limits (Canada)**

| Ingredient name | Exposure limits |
|---|---|
| Acetone | **CA Alberta Provincial (Canada, 4/2009).**<br>8 hrs OEL: 1200 mg/m³ 8 hours.<br>15 min OEL: 1800 mg/m³ 15 minutes.<br>8 hrs OEL: 500 ppm 8 hours.<br>15 min OEL: 750 ppm 15 minutes.<br>**CA British Columbia Provincial (Canada, 6/2017).**<br>TWA: 250 ppm 8 hours.<br>STEL: 500 ppm 15 minutes.<br>**CA Ontario Provincial (Canada, 7/2015).**<br>TWA: 500 ppm 8 hours.<br>STEL: 750 ppm 15 minutes.<br>**CA Quebec Provincial (Canada, 1/2014).**<br>TWAEV: 500 ppm 8 hours.<br>TWAEV: 1190 mg/m³ 8 hours.<br>STEV: 1000 ppm 15 minutes.<br>STEV: 2380 mg/m³ 15 minutes.<br>**CA Saskatchewan Provincial (Canada, 7/2013).**<br>STEL: 750 ppm 15 minutes.<br>TWA: 500 ppm 8 hours. |
| Propane | **CA Alberta Provincial (Canada, 4/2009).**<br>8 hrs OEL: 1000 ppm 8 hours.<br>**CA British Columbia Provincial (Canada, 6/2017).**<br>TWA: 1000 ppm 8 hours.<br>**CA Quebec Provincial (Canada, 1/2014).**<br>TWAEV: 1000 ppm 8 hours.<br>TWAEV: 1800 mg/m³ 8 hours.<br>**CA Ontario Provincial (Canada, 7/2015).**<br>TWA: 1000 ppm 8 hours.<br>**CA Saskatchewan Provincial (Canada, 7/2013).**<br>STEL: 1250 ppm 15 minutes.<br>TWA: 1000 ppm 8 hours. |
| Butane | **CA Alberta Provincial (Canada, 4/2009).**<br>8 hrs OEL: 1000 ppm 8 hours.<br>**CA British Columbia Provincial (Canada, 6/2017).**<br>TWA: 600 ppm 8 hours.<br>STEL: 750 ppm 15 minutes.<br>**CA Quebec Provincial (Canada, 1/2014).**<br>TWAEV: 800 ppm 8 hours.<br>TWAEV: 1900 mg/m³ 8 hours.<br>**CA Ontario Provincial (Canada, 7/2015).**<br>TWA: 800 ppm 8 hours.<br>**CA Saskatchewan Provincial (Canada, 7/2013).**<br>STEL: 1250 ppm 15 minutes. |

| | |
|---|---|
| | TWA: 1000 ppm 8 hours. |
| Isopropyl Acetate | **CA Alberta Provincial (Canada, 4/2009).**<br>15 min OEL: 200 ppm 15 minutes.<br>8 hrs OEL: 416 mg/m³ 8 hours.<br>15 min OEL: 832 mg/m³ 15 minutes.<br>8 hrs OEL: 100 ppm 8 hours.<br>**CA British Columbia Provincial (Canada, 6/2017).**<br>TWA: 100 ppm 8 hours.<br>STEL: 200 ppm 15 minutes.<br>**CA Ontario Provincial (Canada, 7/2015).**<br>TWA: 100 ppm 8 hours.<br>STEL: 200 ppm 15 minutes.<br>**CA Quebec Provincial (Canada, 1/2014).**<br>TWAEV: 250 ppm 8 hours.<br>TWAEV: 1040 mg/m³ 8 hours.<br>STEV: 310 ppm 15 minutes.<br>STEV: 1290 mg/m³ 15 minutes.<br>**CA Saskatchewan Provincial (Canada, 7/2013).**<br>STEL: 200 ppm 15 minutes.<br>TWA: 100 ppm 8 hours. |
| Xylene mixed isomers | **CA Alberta Provincial (Canada, 4/2009).**<br>8 hrs OEL: 100 ppm 8 hours.<br>15 min OEL: 651 mg/m³ 15 minutes.<br>15 min OEL: 150 ppm 15 minutes.<br>8 hrs OEL: 434 mg/m³ 8 hours.<br>**CA British Columbia Provincial (Canada, 6/2017).**<br>TWA: 100 ppm 8 hours.<br>STEL: 150 ppm 15 minutes.<br>**CA Quebec Provincial (Canada, 1/2014).**<br>TWAEV: 100 ppm 8 hours.<br>TWAEV: 434 mg/m³ 8 hours.<br>STEV: 150 ppm 15 minutes.<br>STEV: 651 mg/m³ 15 minutes.<br>**CA Ontario Provincial (Canada, 7/2015).**<br>STEL: 150 ppm 15 minutes.<br>TWA: 100 ppm 8 hours.<br>**CA Saskatchewan Provincial (Canada, 7/2013).**<br>STEL: 150 ppm 15 minutes.<br>TWA: 100 ppm 8 hours. |
| n-Butyl Acetate | **CA Alberta Provincial (Canada, 4/2009).**<br>15 min OEL: 200 ppm 15 minutes.<br>15 min OEL: 950 mg/m³ 15 minutes.<br>8 hrs OEL: 150 ppm 8 hours.<br>8 hrs OEL: 713 mg/m³ 8 hours.<br>**CA British Columbia Provincial (Canada, 6/2017).**<br>TWA: 20 ppm 8 hours.<br>**CA Ontario Provincial (Canada, 7/2015).**<br>TWA: 150 ppm 8 hours.<br>STEL: 200 ppm 15 minutes.<br>**CA Quebec Provincial (Canada, 1/2014).**<br>TWAEV: 150 ppm 8 hours.<br>TWAEV: 713 mg/m³ 8 hours.<br>STEV: 200 ppm 15 minutes.<br>STEV: 950 mg/m³ 15 minutes.<br>**CA Saskatchewan Provincial (Canada, 7/2013).** |

| | |
|---|---|
| | STEL: 200 ppm 15 minutes.<br>TWA: 150 ppm 8 hours. |
| Methyl Ethyl Ketone | **CA Alberta Provincial (Canada, 4/2009).**<br>15 min OEL: 300 ppm 15 minutes.<br>8 hrs OEL: 200 ppm 8 hours.<br>8 hrs OEL: 590 mg/m³ 8 hours.<br>15 min OEL: 885 mg/m³ 15 minutes.<br>**CA British Columbia Provincial (Canada, 6/2017).**<br>TWA: 50 ppm 8 hours.<br>STEL: 100 ppm 15 minutes.<br>**CA Ontario Provincial (Canada, 7/2015).**<br>TWA: 200 ppm 8 hours.<br>STEL: 300 ppm 15 minutes.<br>**CA Quebec Provincial (Canada, 1/2014).**<br>TWAEV: 50 ppm 8 hours.<br>TWAEV: 150 mg/m³ 8 hours.<br>STEV: 100 ppm 15 minutes.<br>STEV: 300 mg/m³ 15 minutes.<br>**CA Saskatchewan Provincial (Canada, 7/2013).**<br>STEL: 300 ppm 15 minutes.<br>TWA: 200 ppm 8 hours. |
| 2-Propanol | **CA Alberta Provincial (Canada, 4/2009).**<br>15 min OEL: 984 mg/m³ 15 minutes.<br>8 hrs OEL: 200 ppm 8 hours.<br>15 min OEL: 400 ppm 15 minutes.<br>8 hrs OEL: 492 mg/m³ 8 hours.<br>**CA British Columbia Provincial (Canada, 6/2017).**<br>TWA: 200 ppm 8 hours.<br>STEL: 400 ppm 15 minutes.<br>**CA Ontario Provincial (Canada, 7/2015).**<br>TWA: 200 ppm 8 hours.<br>STEL: 400 ppm 15 minutes.<br>**CA Quebec Provincial (Canada, 1/2014).**<br>TWAEV: 400 ppm 8 hours.<br>TWAEV: 983 mg/m³ 8 hours.<br>STEV: 500 ppm 15 minutes.<br>STEV: 1230 mg/m³ 15 minutes.<br>**CA Saskatchewan Provincial (Canada, 7/2013).**<br>STEL: 400 ppm 15 minutes.<br>TWA: 200 ppm 8 hours. |
| Methyl Isobutyl Ketone | **CA Alberta Provincial (Canada, 4/2009).**<br>8 hrs OEL: 205 mg/m³ 8 hours.<br>8 hrs OEL: 50 ppm 8 hours.<br>15 min OEL: 75 ppm 15 minutes.<br>15 min OEL: 307 mg/m³ 15 minutes.<br>**CA British Columbia Provincial (Canada, 6/2017).**<br>TWA: 20 ppm 8 hours.<br>STEL: 75 ppm 15 minutes.<br>**CA Ontario Provincial (Canada, 7/2015).**<br>TWA: 20 ppm 8 hours.<br>STEL: 75 ppm 15 minutes.<br>**CA Quebec Provincial (Canada, 1/2014).**<br>TWAEV: 50 ppm 8 hours.<br>TWAEV: 205 mg/m³ 8 hours.<br>STEV: 75 ppm 15 minutes.<br>STEV: 307 mg/m³ 15 minutes. |

| | |
|---|---|
| Ethylbenzene | **CA Saskatchewan Provincial (Canada, 7/2013).**<br>STEL: 75 ppm 15 minutes.<br>TWA: 50 ppm 8 hours.<br>**CA Alberta Provincial (Canada, 4/2009).**<br>8 hrs OEL: 100 ppm 8 hours.<br>8 hrs OEL: 434 mg/m³ 8 hours.<br>15 min OEL: 543 mg/m³ 15 minutes.<br>15 min OEL: 125 ppm 15 minutes.<br>**CA British Columbia Provincial (Canada, 6/2017).**<br>TWA: 20 ppm 8 hours.<br>**CA Ontario Provincial (Canada, 7/2015).**<br>TWA: 20 ppm 8 hours.<br>**CA Quebec Provincial (Canada, 1/2014).**<br>TWAEV: 100 ppm 8 hours.<br>TWAEV: 434 mg/m³ 8 hours.<br>STEV: 125 ppm 15 minutes.<br>STEV: 543 mg/m³ 15 minutes.<br>**CA Saskatchewan Provincial (Canada, 7/2013).**<br>STEL: 125 ppm 15 minutes.<br>TWA: 100 ppm 8 hours. |

**Occupational exposure limits (Mexico)**

| Ingredient name | Exposure limits |
|---|---|
| Acetone | **NOM-010-STPS-2014 (Mexico, 4/2016).**<br>TWA: 500 ppm 8 hours.<br>STEL: 750 ppm 15 minutes. |
| Propane | **NOM-010-STPS-2014 (Mexico, 4/2016).**<br>TWA: 1000 ppm 8 hours. |
| Butane | **NOM-010-STPS-2014 (Mexico, 4/2016).**<br>TWA: 1000 ppm 8 hours. |
| Isopropyl Acetate | **NOM-010-STPS-2014 (Mexico, 4/2016).**<br>TWA: 100 ppm 8 hours.<br>STEL: 200 ppm 15 minutes. |
| Xylene mixed isomers | **NOM-010-STPS-2014 (Mexico, 4/2016).**<br>STEL: 150 ppm 15 minutes.<br>TWA: 100 ppm 8 hours. |
| n-Butyl Acetate | **NOM-010-STPS-2014 (Mexico, 4/2016).**<br>TWA: 150 ppm 8 hours.<br>STEL: 200 ppm 15 minutes. |
| Methyl Ethyl Ketone | **NOM-010-STPS-2014 (Mexico, 4/2016).**<br>TWA: 200 ppm 8 hours.<br>STEL: 300 ppm 15 minutes. |
| 2-Propanol | **NOM-010-STPS-2014 (Mexico, 4/2016).**<br>TWA: 200 ppm 8 hours.<br>STEL: 400 ppm 15 minutes. |
| Methyl Isobutyl Ketone | **NOM-010-STPS-2014 (Mexico, 4/2016).**<br>TWA: 50 ppm 8 hours.<br>STEL: 75 ppm 15 minutes. |
| Ethylbenzene | **NOM-010-STPS-2014 (Mexico, 4/2016).**<br>TWA: 20 ppm 8 hours. |

**Appropriate engineering controls** : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

## Section 8. Exposure controls/personal protection

**Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

**Individual protection measures**

**Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

**Skin protection**

**Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

**Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

**Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

## Section 9. Physical and chemical properties

**Appearance**

**Physical state** : Liquid.

**Color** : Not available.

**Odor** : Not available.

**Odor threshold** : Not available.

**pH** : Not available.

**Melting point/freezing point** : Not available.

**Boiling point/boiling range** : Not available.

**Flash point** : Closed cup: -29°C (-20.2°F) [Pensky-Martens Closed Cup]

**Evaporation rate** : 5.6 (butyl acetate = 1)

**Flammability (solid, gas)** : Not available.

**Lower and upper explosive (flammable) limits** : Lower: 0.9%
Upper: 12.8%

**Vapor pressure** : 101.3 kPa (760 mm Hg) [at 20°C]

**Vapor density** : 1.55 [Air = 1]

**Relative density** : 0.76

**Solubility** : Not available.

## Section 9. Physical and chemical properties

**Partition coefficient: n-octanol/water** : Not available.

**Auto-ignition temperature** : Not available.

**Decomposition temperature** : Not available.

**Viscosity** : Kinematic (40°C (104°F)): <0.205 $cm^2/s$ (<20.5 cSt)

**Molecular weight** : Not applicable.

**Aerosol product**

**Type of aerosol** : Spray

**Heat of combustion** : 28.914 kJ/g

## Section 10. Stability and reactivity

**Reactivity** : No specific test data related to reactivity available for this product or its ingredients.

**Chemical stability** : The product is stable.

**Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.

**Conditions to avoid** : Avoid all possible sources of ignition (spark or flame).

**Incompatible materials** : No specific data.

**Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

**Information on toxicological effects**

**Acute toxicity**

| Product/ingredient name | Result | Species | Dose | Exposure |
|---|---|---|---|---|
| Acetone | LD50 Oral | Rat | 5800 mg/kg | - |
| Butane | LC50 Inhalation Vapor | Rat | 658000 mg/m³ | 4 hours |
| Isopropyl Acetate | LD50 Oral | Rat | 6750 mg/kg | - |
| Xylene mixed isomers | LC50 Inhalation Gas. | Rat | 5000 ppm | 4 hours |
| | LD50 Oral | Rat | 4300 mg/kg | - |
| Cellulose Nitrate | LD50 Oral | Rat | >5 g/kg | - |
| n-Butyl Acetate | LD50 Dermal | Rabbit | >17600 mg/kg | - |
| | LD50 Oral | Rat | 10768 mg/kg | - |
| Ethyl 3-Ethoxypropionate | LD50 Oral | Rat | 3200 mg/kg | - |
| Methyl Ethyl Ketone | LD50 Dermal | Rabbit | 6480 mg/kg | - |
| | LD50 Oral | Rat | 2737 mg/kg | - |
| 2-Propanol | LD50 Dermal | Rabbit | 12800 mg/kg | - |
| | LD50 Oral | Rat | 5000 mg/kg | - |
| Methyl Isobutyl Ketone | LD50 Oral | Rat | 2080 mg/kg | - |
| Ethylbenzene | LD50 Dermal | Rabbit | >5000 mg/kg | - |
| | LD50 Oral | Rat | 3500 mg/kg | - |
| Butyl Benzyl Phthalate | LD50 Dermal | Rabbit | >10000 mg/kg | - |
| | LD50 Dermal | Rat | 6700 mg/kg | - |
| | LD50 Oral | Rat | 2330 mg/kg | - |

**Irritation/Corrosion**

# Section 11. Toxicological information

| Product/ingredient name | Result | Species | Score | Exposure | Observation |
|---|---|---|---|---|---|
| Acetone | Eyes - Mild irritant | Human | - | 186300 parts per million | - |
| | Eyes - Mild irritant | Rabbit | - | 10 microliters | - |
| | Eyes - Moderate irritant | Rabbit | - | 24 hours 20 milligrams | - |
| | Eyes - Severe irritant | Rabbit | - | 20 milligrams | - |
| | Skin - Mild irritant | Rabbit | - | 24 hours 500 milligrams | - |
| | Skin - Mild irritant | Rabbit | - | 395 milligrams | - |
| Isopropyl Acetate | Skin - Mild irritant | Rabbit | - | 24 hours 500 milligrams | - |
| Xylene mixed isomers | Eyes - Mild irritant | Rabbit | - | 87 milligrams | - |
| | Eyes - Severe irritant | Rabbit | - | 24 hours 5 milligrams | - |
| | Skin - Mild irritant | Rat | - | 8 hours 60 microliters | - |
| | Skin - Moderate irritant | Rabbit | - | 24 hours 500 milligrams | - |
| | Skin - Moderate irritant | Rabbit | - | 100 Percent | - |
| n-Butyl Acetate | Eyes - Moderate irritant | Rabbit | - | 100 milligrams | - |
| | Skin - Moderate irritant | Rabbit | - | 24 hours 500 milligrams | - |
| Ethyl 3-Ethoxypropionate | Skin - Mild irritant | Rabbit | - | 24 hours 500 milligrams | - |
| Methyl Ethyl Ketone | Skin - Mild irritant | Rabbit | - | 24 hours 14 milligrams | - |
| | Skin - Moderate irritant | Rabbit | - | 24 hours 500 milligrams | - |
| 2-Propanol | Eyes - Moderate irritant | Rabbit | - | 24 hours 100 milligrams | - |
| | Eyes - Moderate irritant | Rabbit | - | 10 milligrams | - |
| | Eyes - Severe irritant | Rabbit | - | 100 milligrams | - |
| | Skin - Mild irritant | Rabbit | - | 500 milligrams | - |
| Methyl Isobutyl Ketone | Eyes - Moderate irritant | Rabbit | - | 24 hours 100 microliters | - |
| | Eyes - Severe irritant | Rabbit | - | 40 milligrams | - |
| | Skin - Mild irritant | Rabbit | - | 24 hours 500 milligrams | - |
| Ethylbenzene | Eyes - Severe irritant | Rabbit | - | 500 milligrams | - |
| | Skin - Mild irritant | Rabbit | - | 24 hours 15 milligrams | - |
| Titanium Dioxide | Skin - Mild irritant | Human | - | 72 hours 300 Micrograms Intermittent | - |

## Sensitization

Not available.

## Mutagenicity

Not available.

## Carcinogenicity

Not available.

## Classification

# Section 11. Toxicological information

| Product/ingredient name | OSHA | IARC | NTP |
|---|---|---|---|
| Xylene mixed isomers | - | 3 | - |
| 2-Propanol | - | 3 | - |
| Methyl Isobutyl Ketone | - | 2B | - |
| Ethylbenzene | - | 2B | - |
| Butyl Benzyl Phthalate | - | 3 | - |
| Titanium Dioxide | - | 2B | - |

## Reproductive toxicity

Not available.

## Teratogenicity

Not available.

## Specific target organ toxicity (single exposure)

| Name | Category | Route of exposure | Target organs |
|---|---|---|---|
| Acetone | Category 3 | Not applicable. | Respiratory tract irritation and Narcotic effects |
| Propane | Category 3 | Not applicable. | Respiratory tract irritation and Narcotic effects |
| Butane | Category 3 | Not applicable. | Respiratory tract irritation and Narcotic effects |
| Isopropyl Acetate | Category 3 | Not applicable. | Narcotic effects |
| Xylene mixed isomers | Category 3 | Not applicable. | Respiratory tract irritation |
| n-Butyl Acetate | Category 3 | Not applicable. | Narcotic effects |
| Methyl Ethyl Ketone | Category 3 | Not applicable. | Respiratory tract irritation and Narcotic effects |
| 2-Propanol | Category 3 | Not applicable. | Respiratory tract irritation and Narcotic effects |
| Methyl Isobutyl Ketone | Category 3 | Not applicable. | Respiratory tract irritation and Narcotic effects |
| Lt. Aliphatic Hydrocarbon Solvent | Category 3 | Not applicable. | Respiratory tract irritation and Narcotic effects |
| Ethylbenzene | Category 3 | Not applicable. | Respiratory tract irritation and Narcotic effects |
| Med. Aliphatic Hydrocarbon Solvent | Category 3 | Not applicable. | Respiratory tract irritation and Narcotic effects |

## Specific target organ toxicity (repeated exposure)

| Name | Category | Route of exposure | Target organs |
|---|---|---|---|
| Acetone | Category 2 | Not determined | Not determined |
| Propane | Category 2 | Not determined | Not determined |
| Butane | Category 2 | Not determined | Not determined |
| Xylene mixed isomers | Category 2 | Not determined | Not determined |
| Methyl Ethyl Ketone | Category 2 | Not determined | Not determined |
| 2-Propanol | Category 2 | Not determined | Not determined |
| Methyl Isobutyl Ketone | Category 2 | Not determined | Not determined |
| Lt. Aliphatic Hydrocarbon Solvent | Category 2 | Not determined | Not determined |
| Ethylbenzene | Category 2 | Not determined | Not determined |
| Med. Aliphatic Hydrocarbon Solvent | Category 1 | Not determined | Not determined |

# Section 11. Toxicological information

## Aspiration hazard

| Name | Result |
|---|---|
| Propane | ASPIRATION HAZARD - Category 1 |
| Butane | ASPIRATION HAZARD - Category 1 |
| Xylene mixed isomers | ASPIRATION HAZARD - Category 1 |
| Lt. Aliphatic Hydrocarbon Solvent | ASPIRATION HAZARD - Category 1 |
| Ethylbenzene | ASPIRATION HAZARD - Category 1 |
| Med. Aliphatic Hydrocarbon Solvent | ASPIRATION HAZARD - Category 1 |

**Information on the likely routes of exposure** : Not available.

## Potential acute health effects

**Eye contact** : Causes serious eye irritation.

**Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.

**Skin contact** : Causes skin irritation.

**Ingestion** : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

## Symptoms related to the physical, chemical and toxicological characteristics

**Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness

**Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
reduced fetal weight
increase in fetal deaths
skeletal malformations

**Skin contact** : Adverse symptoms may include the following:
irritation
redness
reduced fetal weight
increase in fetal deaths
skeletal malformations

**Ingestion** : Adverse symptoms may include the following:
nausea or vomiting
reduced fetal weight
increase in fetal deaths
skeletal malformations

## Delayed and immediate effects and also chronic effects from short and long term exposure

### Short term exposure

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

### Long term exposure

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

**Potential chronic health effects**

Not available.

**General** : May cause damage to organs through prolonged or repeated exposure.

**Carcinogenicity** : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.

**Mutagenicity** : No known significant effects or critical hazards.

**Teratogenicity** : May damage the unborn child.

**Developmental effects** : No known significant effects or critical hazards.

**Fertility effects** : Suspected of damaging fertility.

**Numerical measures of toxicity**

**Acute toxicity estimates**

| Route | ATE value |
|---|---|
| Oral | 16075.3 mg/kg |
| Dermal | 5082.7 mg/kg |
| Inhalation (gases) | 27197.7 ppm |
| Inhalation (vapors) | 116.7 mg/l |

## Section 12. Ecological information

**Toxicity**

| Product/ingredient name | Result | Species | Exposure |
|---|---|---|---|
| Acetone | Acute EC50 7200000 µg/l Fresh water | Algae - Selenastrum sp. | 96 hours |
| | Acute LC50 6000000 µg/l Fresh water | Crustaceans - Gammarus pulex | 48 hours |
| | Acute LC50 6900 mg/l Fresh water | Daphnia - Daphnia magna | 48 hours |
| | Acute LC50 5600 ppm Fresh water | Fish - Poecilia reticulata | 96 hours |
| | Chronic NOEC 4.95 mg/l Marine water | Algae - Ulva pertusa | 96 hours |
| | Chronic NOEC 0.016 ml/L Fresh water | Crustaceans - Daphniidae | 21 days |
| | Chronic NOEC 0.1 ml/L Fresh water | Daphnia - Daphnia magna - Neonate | 21 days |
| | Chronic NOEC 0.1 mg/l Fresh water | Fish - Fundulus heteroclitus | 4 weeks |
| Isopropyl Acetate | Acute LC50 110 mg/l Marine water | Crustaceans - Artemia salina | 48 hours |
| Xylene mixed isomers | Acute LC50 8500 µg/l Marine water | Crustaceans - Palaemonetes pugio | 48 hours |
| | Acute LC50 13400 µg/l Fresh water | Fish - Pimephales promelas | 96 hours |
| Cellulose Nitrate | Acute EC50 579000 µg/l Fresh water | Algae - Pseudokirchneriella subcapitata | 96 hours |
| n-Butyl Acetate | Acute LC50 32 mg/l Marine water | Crustaceans - Artemia salina | 48 hours |
| | Acute LC50 18000 µg/l Fresh water | Fish - Pimephales promelas | 96 hours |
| Methyl Ethyl Ketone | Acute EC50 >500000 µg/l Marine water | Algae - Skeletonema costatum | 96 hours |
| | Acute EC50 5091000 µg/l Fresh water | Daphnia - Daphnia magna - Larvae | 48 hours |
| | Acute LC50 3220000 µg/l Fresh water | Fish - Pimephales promelas | 96 hours |
| 2-Propanol | Acute EC50 10100 mg/l Fresh water | Daphnia - Daphnia magna | 48 hours |
| | Acute LC50 1400000 µg/l Marine water | Crustaceans - Crangon crangon | 48 hours |
| | Acute LC50 4200 mg/l Fresh water | Fish - Rasbora heteromorpha | 96 hours |
| Methyl Isobutyl Ketone | Acute LC50 505000 µg/l Fresh water | Fish - Pimephales promelas | 96 hours |
| | Chronic NOEC 78 mg/l Fresh water | Daphnia - Daphnia magna | 21 days |
| | Chronic NOEC 168 mg/l Fresh water | Fish - Pimephales promelas - Embryo | 33 days |
| Lt. Aliphatic Hydrocarbon Solvent | Acute LC50 >100000 ppm Fresh water | Fish - Oncorhynchus mykiss | 96 hours |
| Amyl Acetate | Acute LC50 65 ppm Fresh water | Fish - Gambusia affinis - Adult | 96 hours |
| Ethylbenzene | Acute EC50 4600 µg/l Fresh water | Algae - Pseudokirchneriella subcapitata | 72 hours |
| | Acute EC50 3600 µg/l Fresh water | Algae - Pseudokirchneriella | 96 hours |

## Section 12. Ecological information

| | | | |
|---|---|---|---|
| | | subcapitata | |
| | Acute EC50 6530 µg/l Fresh water | Crustaceans - Artemia sp. - Nauplii | 48 hours |
| | Acute EC50 2930 µg/l Fresh water | Daphnia - Daphnia magna - Neonate | 48 hours |
| | Acute LC50 4200 µg/l Fresh water | Fish - Oncorhynchus mykiss | 96 hours |
| Butyl Benzyl Phthalate | Acute EC50 0.22 ppm Marine water | Algae - Skeletonema costatum | 72 hours |
| | Acute EC50 100 µg/l Fresh water | Algae - Pseudokirchneriella subcapitata | 96 hours |
| | Acute EC50 1000 µg/l Fresh water | Daphnia - Daphnia magna | 48 hours |
| | Acute LC50 3.69 mg/l Fresh water | Crustaceans - Moina macrocopa - New born | 48 hours |
| | Acute LC50 510 µg/l Marine water | Fish - Cymatogaster aggregata - Juvenile (Fledgling, Hatchling, Weanling) | 96 hours |
| | Chronic EC10 0.57 mg/l Fresh water | Algae - Pseudokirchneriella subcapitata - Exponential growth phase | 72 hours |
| | Chronic NOEC 0.17 mg/l Fresh water | Daphnia - Daphnia magna | 21 days |
| | Chronic NOEC 0.1 mg/l Fresh water | Fish - Fundulus heteroclitus | 4 weeks |
| Titanium Dioxide | Acute LC50 >1000000 µg/l Marine water | Fish - Fundulus heteroclitus | 96 hours |

### Persistence and degradability

| Product/ingredient name | Aquatic half-life | Photolysis | Biodegradability |
|---|---|---|---|
| Acetone | - | - | Readily |
| Xylene mixed isomers | - | - | Readily |
| n-Butyl Acetate | - | - | Readily |
| Methyl Ethyl Ketone | - | - | Readily |
| 2-Propanol | - | - | Readily |
| Methyl Isobutyl Ketone | - | - | Readily |
| Ethylbenzene | - | - | Readily |

### Bioaccumulative potential

| Product/ingredient name | $LogP_{ow}$ | BCF | Potential |
|---|---|---|---|
| Xylene mixed isomers | - | 8.1 to 25.9 | low |
| Lt. Aliphatic Hydrocarbon Solvent | - | 10 to 2500 | high |
| Butyl Benzyl Phthalate | - | 1693.25 | high |

### Mobility in soil

**Soil/water partition coefficient ($K_{OC}$)** : Not available.

**Other adverse effects** : No known significant effects or critical hazards.

## Section 13. Disposal considerations

**Disposal methods** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Do not puncture or incinerate container.

## Section 14. Transport information

| | DOT Classification | TDG Classification | Mexico Classification | IATA | IMDG |
|---|---|---|---|---|---|
| **UN number** | UN1950 | UN1950 | UN1950 | UN1950 | UN1950 |
| **UN proper shipping name** | AEROSOLS | AEROSOLS | AEROSOLS | AEROSOLS, flammable | AEROSOLS |
| **Transport hazard class(es)** | 2.1   | 2.1   | 2.1   | 2.1   | 2.1   |
| **Packing group** | - | - | - | - | - |
| **Environmental hazards** | No. | No. | No. | No. | No. |
| **Additional information** | - <br> **ERG No.** <br> 126 | Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2. 13-2.17 (Class 2). <br> **ERG No.** <br> 126 | - <br> **ERG No.** <br> 126 | - | **Emergency schedules** F-D, S-U |

**Special precautions for user** : Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (sea, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport. People loading and unloading dangerous goods must be trained on all of the risks deriving from the substances and on all actions in case of emergency situations.

**Transport in bulk according to Annex II of MARPOL and the IBC Code** : Not available.

**Proper shipping name** : Not available.

**Ship type** : Not available.

**Pollution category** : Not available.

## Section 15. Regulatory information

### SARA 313

SARA 313 (40 CFR 372.45) supplier notification can be found on the Environmental Data Sheet.

### California Prop. 65

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

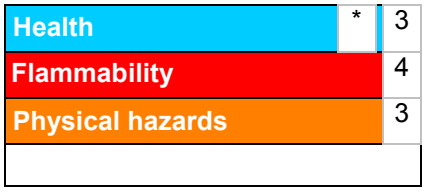
### International regulations

## Section 15. Regulatory information

**International lists** : **Australia inventory (AICS)**: Not determined.
**China inventory (IECSC)**: Not determined.
**Japan inventory (ENCS)**: Not determined.
**Japan inventory (ISHL)**: Not determined.
**Korea inventory (KECI)**: Not determined.
**Malaysia Inventory (EHS Register)**: Not determined.
**New Zealand Inventory of Chemicals (NZIoC)**: Not determined.
**Philippines inventory (PICCS)**: Not determined.
**Taiwan Chemical Substances Inventory (TCSI)**: Not determined.
**Thailand inventory**: Not determined.
**Turkey inventory**: Not determined.
**Vietnam inventory**: Not determined.

## Section 16. Other information

**Hazardous Material Information System (U.S.A.)**




**The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.**

**Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.**

**Procedure used to derive the classification**

| Classification | Justification |
|---|---|
| FLAMMABLE AEROSOLS - Category 1 | On basis of test data |
| GASES UNDER PRESSURE - Compressed gas | Calculation method |
| SKIN CORROSION/IRRITATION - Category 2 | Calculation method |
| SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A | Calculation method |
| CARCINOGENICITY - Category 2 | Calculation method |
| TOXIC TO REPRODUCTION (Unborn child) - Category 1B | Calculation method |
| TOXIC TO REPRODUCTION (Fertility) - Category 2 | Calculation method |
| SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 | Calculation method |
| SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 | Calculation method |
| SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2 | Calculation method |
| ASPIRATION HAZARD - Category 1 | Calculation method |

**History**

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**Key to abbreviations** : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

## Section 16. Other information

UN = United Nations

**Notice to reader**

**It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by the manufacturer, including but not limited to the incorporation of products not specified by the manufacturer, or the use or addition of products in proportions not specified by the manufacturer. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.**