

# SAFETY DATA SHEET

L61S18

## Section 1. Identification

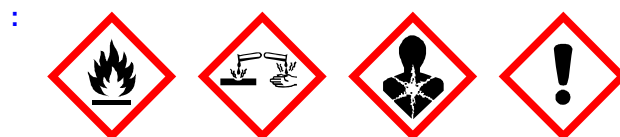
|  |  |
|--|--|
| <b>Product name</b>  | : OPEX® Production Lacquer<br>Flamboyant Aluminum  |
| <b>Product code</b>  | : L61S18   |
| <b>Other means of identification</b>   | : Not available.   |
| <b>Product type</b>  | : Liquid.  |
| <b>Relevant identified uses of the substance or mixture and uses advised against</b> |  |
| Paint or paint related material.   |  |
| <b>Manufacturer</b>  | : THE SHERWIN-WILLIAMS COMPANY<br>101 W. Prospect Avenue<br>Cleveland, OH 44115                                    |
| <b>National contact</b>  | : Sherwin-Williams Canada Inc.<br>180 Brunel Road<br>Mississauga, Ontario L4Z 1T5 Canada                           |
| <b>Emergency telephone number of the company</b>                                     | : US / Canada: (800) 424-9300<br>Mexico: SETIQ 800-00-214-00 / 55-5559-1588 Available 24 hours and 365 days a year |
| <b>Product Information Telephone Number</b>  | : US / Canada: 866-722-9710<br>Mexico: Not Available   |
| <b>Transportation Emergency Telephone Number</b>                                     | : US / Canada: (800) 424-9300<br>Mexico: SETIQ 800-00-214-00 / 55-5559-1588 Available 24 hours and 365 days a year |

## Section 2. Hazards identification

|   |   |
|---|---|
| <b>Classification of the substance or mixture</b> | : FLAMMABLE LIQUIDS - Category 2<br>SKIN CORROSION/IRRITATION - Category 2<br>SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1<br>SKIN SENSITIZATION - Category 1<br>CARCINOGENICITY - Category 2<br>TOXIC TO REPRODUCTION - Category 1B<br>SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3<br>SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2<br>ASPIRATION HAZARD - Category 1<br>Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity: 22.4% (oral), 45.4% (dermal), 63.5% (inhalation) |
|---|---|

### GHS label elements

#### Hazard pictograms



#### Signal word

: Danger

## Section 2. Hazards identification

**Hazard statements** : Highly flammable liquid and vapor.  
 May be fatal if swallowed and enters airways.  
 Causes skin irritation.  
 May cause an allergic skin reaction.  
 Causes serious eye damage.  
 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.

**Precautionary statements**

**Prevention** : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing and eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating or lighting equipment. Use non-sparking tools. Take action to prevent static discharges. Use only outdoors or in a well-ventilated area. Do not breathe vapor. Wash thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace.

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

**Storage** : Store locked up. Store in a well-ventilated place. Keep container tightly closed. Keep cool.

**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. FOR INDUSTRIAL USE ONLY.  
 Please refer to the SDS for additional information. Keep out of reach of children. Do not transfer contents to other containers for storage.

**Hazards not otherwise classified** : None known.

## Section 3. Composition/information on ingredients

**Substance/mixture** : Mixture

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

**CAS number/other identifiers**

| Ingredient name                   | % by weight | CAS number |
|-----------------------------------|-------------|------------|
| Isobutyl Acetate                  | 21.37       | 110-19-0   |
| Toluene                           | 12.51       | 108-88-3   |
| 2-Propanol                        | 12.26       | 67-63-0    |
| Lt. Aliphatic Hydrocarbon Solvent | 12.24       | 64742-89-8 |
| Methyl Ethyl Ketone               | 11.12       | 78-93-3    |
| Aluminum                          | 6.4         | 7429-90-5  |
| Cellulose Nitrate                 | 6.24        | 9004-70-0  |
| 2-Methyl-1-propanol               | 5.37        | 78-83-1    |

## Section 3. Composition/information on ingredients

|                                      |      |            |
|--------------------------------------|------|------------|
| Rosin Ester                          | 3.74 | 68038-41-5 |
| 2-Butoxyethanol                      | 2.55 | 111-76-2   |
| Light Aromatic Hydrocarbons          | 1.76 | 64742-95-6 |
| Hydrotreated Heavy Petroleum Naphtha | 1.72 | 64742-48-9 |
| Tricresyl Phosphate                  | 1.28 | 1330-78-5  |
| Xylene, mixed isomers                | 1.2  | 1330-20-7  |
| Ethylbenzene                         | 0.21 | 100-41-4   |

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 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** : Get medical attention immediately. Call a poison center or physician. 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. Chemical burns must be treated promptly by a physician.
- Inhalation** : Get medical attention immediately. Call a poison center or physician. 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. 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** : Get medical attention immediately. Call a poison center or physician. Wash with plenty of soap and 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. Chemical burns must be treated promptly by a physician. In the event of any complaints or symptoms, avoid further exposure. 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. 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. Chemical burns must be treated promptly by a physician. 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 damage.
- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
- Skin contact** : Causes skin irritation. May cause an allergic skin reaction.
- Ingestion** : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

#### Over-exposure signs/symptoms

|   |   |                         |      |
|---|---|-------------------------|------|
| <b>Date of issue/Date of revision</b> : 5/19/2024 | <b>Date of previous issue</b> : 4/18/2024       | <b>Version</b> : 20     | 3/23 |
| L61S18  | OPEX® Production Lacquer<br>Flamboyant Aluminum | <b>SHW-85-NA-GHS-CA</b> |      |

## Section 4. First aid measures

- Eye contact** : Adverse symptoms may include the following:  
pain  
watering  
redness
- Inhalation** : Adverse symptoms may include the following:  
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:  
pain or irritation  
redness  
blistering may occur  
reduced fetal weight  
increase in fetal deaths  
skeletal malformations
- Ingestion** : Adverse symptoms may include the following:  
stomach pains  
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 dry chemical, CO<sub>2</sub>, water spray (fog) or foam.
- Unsuitable extinguishing media** : Do not use water jet.

- Specific hazards arising from the chemical** : Highly flammable liquid and vapor. 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. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back.

## Section 5. Fire-fighting measures

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
  - carbon dioxide
  - carbon monoxide
  - nitrogen oxides
  - phosphorus oxides
  - metal oxide/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.
- Remark** : Flammable liquid.

## 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. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe 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

## Section 7. Handling and storage

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. 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. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. 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. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.
- 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 in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. 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  | CAS #    | Exposure limits   |
|------------------|----------|---|
| Isobutyl Acetate | 110-19-0 | <b>NIOSH REL (United States, 10/2020).</b><br>TWA: 150 ppm 10 hours.<br>TWA: 700 mg/m <sup>3</sup> 10 hours.<br><b>OSHA PEL (United States, 5/2018).</b><br>TWA: 150 ppm 8 hours.<br>TWA: 700 mg/m <sup>3</sup> 8 hours.<br><b>ACGIH TLV (United States, 7/2023). [Butyl acetates]</b><br>STEL: 150 ppm 15 minutes.<br>TWA: 50 ppm 8 hours.   |
| Toluene          | 108-88-3 | <b>OSHA PEL Z2 (United States, 2/2013).</b><br>TWA: 200 ppm 8 hours.<br>CEIL: 300 ppm<br>AMP: 500 ppm 10 minutes.<br><b>NIOSH REL (United States, 10/2020).</b><br>TWA: 100 ppm 10 hours.<br>TWA: 375 mg/m <sup>3</sup> 10 hours.<br>STEL: 150 ppm 15 minutes.<br>STEL: 560 mg/m <sup>3</sup> 15 minutes.<br><b>ACGIH TLV (United States, 7/2023).</b><br><b>Ototoxicant.</b><br>TWA: 20 ppm 8 hours. |
| 2-Propanol       | 67-63-0  | <b>ACGIH TLV (United States, 7/2023).</b>   |


## Section 8. Exposure controls/personal protection

|  |                                |   |
|--|--------------------------------|---|
| <p>Lt. Aliphatic Hydrocarbon Solvent<br/>Methyl Ethyl Ketone</p> | <p>64742-89-8<br/>78-93-3</p>  | <p>TWA: 200 ppm 8 hours.<br/>STEL: 400 ppm 15 minutes.<br/><b>NIOSH REL (United States, 10/2020).</b><br/>TWA: 400 ppm 10 hours.<br/>TWA: 980 mg/m<sup>3</sup> 10 hours.<br/>STEL: 500 ppm 15 minutes.<br/>STEL: 1225 mg/m<sup>3</sup> 15 minutes.<br/><b>OSHA PEL (United States, 5/2018).</b><br/>TWA: 400 ppm 8 hours.<br/>TWA: 980 mg/m<sup>3</sup> 8 hours.</p> <p>None.<br/><b>ACGIH TLV (United States, 7/2023).</b><br/><b>Absorbed through skin.</b><br/>TWA: 75 ppm 8 hours.<br/>STEL: 150 ppm 15 minutes.<br/><b>NIOSH REL (United States, 10/2020).</b><br/>TWA: 200 ppm 10 hours.<br/>TWA: 590 mg/m<sup>3</sup> 10 hours.<br/>STEL: 300 ppm 15 minutes.<br/>STEL: 885 mg/m<sup>3</sup> 15 minutes.<br/><b>OSHA PEL (United States, 5/2018).</b><br/>TWA: 200 ppm 8 hours.<br/>TWA: 590 mg/m<sup>3</sup> 8 hours.</p> |
| <p>Aluminum</p>  | <p>7429-90-5</p>               | <p><b>NIOSH REL (United States, 10/2020).</b><br/>TWA: 5 mg/m<sup>3</sup> 10 hours. Form: Respirable fraction<br/>TWA: 10 mg/m<sup>3</sup> 10 hours. Form: Total<br/><b>OSHA PEL (United States, 5/2018).</b><br/>TWA: 5 mg/m<sup>3</sup>, (as Al) 8 hours. Form: Respirable fraction<br/>TWA: 15 mg/m<sup>3</sup>, (as Al) 8 hours. Form: Total dust<br/><b>ACGIH TLV (United States, 7/2023).</b><br/><b>[Aluminum, metal and insoluble compounds]</b><br/>TWA: 1 mg/m<sup>3</sup> 8 hours. Form: Respirable fraction</p>   |
| <p>Cellulose Nitrate<br/>2-Methyl-1-propanol</p>                 | <p>9004-70-0<br/>78-83-1</p>   | <p>None.<br/><b>ACGIH TLV (United States, 7/2023).</b><br/>TWA: 50 ppm 8 hours.<br/>TWA: 152 mg/m<sup>3</sup> 8 hours.<br/><b>NIOSH REL (United States, 10/2020).</b><br/>TWA: 50 ppm 10 hours.<br/>TWA: 150 mg/m<sup>3</sup> 10 hours.<br/><b>OSHA PEL (United States, 5/2018).</b><br/>TWA: 100 ppm 8 hours.<br/>TWA: 300 mg/m<sup>3</sup> 8 hours.</p>   |
| <p>Rosin Ester<br/>2-Butoxyethanol</p>                           | <p>68038-41-5<br/>111-76-2</p> | <p>None.<br/><b>ACGIH TLV (United States, 7/2023).</b><br/>TWA: 20 ppm 8 hours.<br/><b>NIOSH REL (United States, 10/2020).</b><br/><b>Absorbed through skin.</b><br/>TWA: 5 ppm 10 hours.<br/>TWA: 24 mg/m<sup>3</sup> 10 hours.<br/><b>OSHA PEL (United States, 5/2018).</b><br/><b>Absorbed through skin.</b><br/>TWA: 50 ppm 8 hours.</p>  |

## Section 8. Exposure controls/personal protection

|  |  |   |
|--|--|---|
| <p>Light Aromatic Hydrocarbons<br/>Hydrotreated Heavy Petroleum Naptha<br/>Tricresyl Phosphate<br/>Xylene, mixed isomers</p> | <p>64742-95-6<br/>64742-48-9<br/>1330-78-5<br/>1330-20-7</p> | <p>TWA: 240 mg/m<sup>3</sup> 8 hours.<br/>None.<br/>None.<br/>None.<br/><b>OSHA PEL (United States, 5/2018).</b><br/><b>[Xylenes]</b><br/>TWA: 100 ppm 8 hours.<br/>TWA: 435 mg/m<sup>3</sup> 8 hours.<br/><b>ACGIH TLV (United States, 7/2023).</b> [p-xylene and mixtures containing p-xylene]<br/><b>Ototoxicant.</b><br/>TWA: 20 ppm 8 hours.<br/><b>ACGIH TLV (United States, 7/2023).</b><br/><b>Ototoxicant.</b><br/>TWA: 20 ppm 8 hours.<br/><b>NIOSH REL (United States, 10/2020).</b><br/>TWA: 100 ppm 10 hours.<br/>TWA: 435 mg/m<sup>3</sup> 10 hours.<br/>STEL: 125 ppm 15 minutes.<br/>STEL: 545 mg/m<sup>3</sup> 15 minutes.<br/><b>OSHA PEL (United States, 5/2018).</b><br/>TWA: 100 ppm 8 hours.<br/>TWA: 435 mg/m<sup>3</sup> 8 hours.</p> |
| <p>Ethylbenzene</p>  | <p>100-41-4</p>  | <p>TWA: 20 ppm 8 hours.<br/><b>ACGIH TLV (United States, 7/2023).</b><br/><b>Ototoxicant.</b><br/>TWA: 20 ppm 8 hours.<br/><b>NIOSH REL (United States, 10/2020).</b><br/>TWA: 100 ppm 10 hours.<br/>TWA: 435 mg/m<sup>3</sup> 10 hours.<br/>STEL: 125 ppm 15 minutes.<br/>STEL: 545 mg/m<sup>3</sup> 15 minutes.<br/><b>OSHA PEL (United States, 5/2018).</b><br/>TWA: 100 ppm 8 hours.<br/>TWA: 435 mg/m<sup>3</sup> 8 hours.</p>   |

### Occupational exposure limits (Canada)

| Ingredient name  | CAS #    | Exposure limits   |
|------------------|----------|---|
| Isobutyl acetate | 110-19-0 | <p><b>CA Alberta Provincial (Canada, 3/2023).</b> </p> <p>OEL: 150 ppm 8 hours.<br/>OEL: 713 mg/m<sup>3</sup> 8 hours.<br/><b>CA Saskatchewan Provincial (Canada, 7/2013).</b><br/>STEL: 188 ppm 15 minutes.<br/>TWA: 150 ppm 8 hours.<br/><b>CA Ontario Provincial (Canada, 6/2019).</b><br/><b>[butyl acetates, all isomers]</b><br/>STEL: 150 ppm 15 minutes.<br/>TWA: 50 ppm 8 hours.<br/><b>CA British Columbia Provincial (Canada, 8/2023).</b> <b>[butyl acetate, all isomers]</b><br/>STEL: 150 ppm 15 minutes.<br/>TWA: 50 ppm 8 hours.<br/><b>CA Quebec Provincial (Canada, 7/2023).</b><br/><b>[butyl acetates]</b><br/>STEV: 150 ppm 15 minutes.<br/>TWAEV: 50 ppm 8 hours.</p> |
| Toluene          | 108-88-3 | <p><b>CA Alberta Provincial (Canada, 3/2023).</b><br/><b>Absorbed through skin.</b><br/>OEL: 50 ppm 8 hours.<br/>OEL: 188 mg/m<sup>3</sup> 8 hours.<br/><b>CA British Columbia Provincial (Canada, 8/2023).</b><br/>TWA: 20 ppm 8 hours.<br/><b>CA Ontario Provincial (Canada, 6/2019).</b><br/>TWA: 20 ppm 8 hours.<br/><b>CA Quebec Provincial (Canada, 7/2023).</b><br/>TWAEV: 20 ppm 8 hours.</p>   |



## Section 8. Exposure controls/personal protection

|                     |         |  |
|---------------------|---------|--|
| Isopropyl alcohol   | 67-63-0 | <p><b>CA Saskatchewan Provincial (Canada, 7/2013). Absorbed through skin.</b><br/>           STEL: 60 ppm 15 minutes.<br/>           TWA: 50 ppm 8 hours.</p> <p><b>CA Alberta Provincial (Canada, 3/2023).</b><br/>           OEL: 984 mg/m<sup>3</sup> 15 minutes.<br/>           OEL: 200 ppm 8 hours.<br/>           OEL: 400 ppm 15 minutes.<br/>           OEL: 492 mg/m<sup>3</sup> 8 hours.</p> <p><b>CA British Columbia Provincial (Canada, 8/2023).</b><br/>           TWA: 200 ppm 8 hours.<br/>           STEL: 400 ppm 15 minutes.</p> <p><b>CA Ontario Provincial (Canada, 6/2019).</b><br/>           TWA: 200 ppm 8 hours.<br/>           STEL: 400 ppm 15 minutes.</p> <p><b>CA Quebec Provincial (Canada, 7/2023).</b><br/>           TWAEV: 200 ppm 8 hours.<br/>           STEV: 400 ppm 15 minutes.</p> <p><b>CA Saskatchewan Provincial (Canada, 7/2013).</b><br/>           STEL: 400 ppm 15 minutes.<br/>           TWA: 200 ppm 8 hours.</p> |
| Methyl ethyl ketone | 78-93-3 | <p><b>CA Alberta Provincial (Canada, 3/2023).</b><br/>           OEL: 300 ppm 15 minutes.<br/>           OEL: 200 ppm 8 hours.<br/>           OEL: 590 mg/m<sup>3</sup> 8 hours.<br/>           OEL: 885 mg/m<sup>3</sup> 15 minutes.</p> <p><b>CA British Columbia Provincial (Canada, 8/2023). Absorbed through skin.</b><br/>           TWA: 50 ppm 8 hours.<br/>           STEL: 100 ppm 15 minutes.</p> <p><b>CA Ontario Provincial (Canada, 6/2019).</b><br/>           TWA: 200 ppm 8 hours.<br/>           STEL: 300 ppm 15 minutes.</p> <p><b>CA Quebec Provincial (Canada, 7/2023).</b><br/>           TWAEV: 50 ppm 8 hours.<br/>           TWAEV: 150 mg/m<sup>3</sup> 8 hours.<br/>           STEV: 100 ppm 15 minutes.<br/>           STEV: 300 mg/m<sup>3</sup> 15 minutes.</p> <p><b>CA Saskatchewan Provincial (Canada, 7/2013).</b><br/>           STEL: 300 ppm 15 minutes.<br/>           TWA: 200 ppm 8 hours.</p>                                |
| Isobutyl alcohol    | 78-83-1 | <p><b>CA Alberta Provincial (Canada, 3/2023).</b><br/>           OEL: 50 ppm 8 hours.<br/>           OEL: 152 mg/m<sup>3</sup> 8 hours.</p> <p><b>CA British Columbia Provincial (Canada, 8/2023).</b><br/>           TWA: 50 ppm 8 hours.</p> <p><b>CA Ontario Provincial (Canada, 6/2019).</b><br/>           TWA: 50 ppm 8 hours.</p> <p><b>CA Quebec Provincial (Canada, 7/2023).</b><br/>           TWAEV: 50 ppm 8 hours.<br/>           TWAEV: 152 mg/m<sup>3</sup> 8 hours.</p> <p><b>CA Saskatchewan Provincial (Canada, 7/2013).</b></p>   |

## Section 8. Exposure controls/personal protection

|                 |           |  |
|-----------------|-----------|--|
| 2-Butoxyethanol | 111-76-2  | <p>STEL: 60 ppm 15 minutes.<br/>TWA: 50 ppm 8 hours.</p> <p><b>CA Alberta Provincial (Canada, 3/2023).</b><br/>OEL: 97 mg/m<sup>3</sup> 8 hours.<br/>OEL: 20 ppm 8 hours.</p> <p><b>CA British Columbia Provincial (Canada, 8/2023).</b><br/>TWA: 20 ppm 8 hours.</p> <p><b>CA Ontario Provincial (Canada, 6/2019).</b><br/>TWA: 20 ppm 8 hours.</p> <p><b>CA Quebec Provincial (Canada, 7/2023).</b><br/>TWAEV: 20 ppm 8 hours.</p> <p><b>CA Saskatchewan Provincial (Canada, 7/2013).</b><br/>STEL: 30 ppm 15 minutes.<br/>TWA: 20 ppm 8 hours.</p>  |
| Xylene          | 1330-20-7 | <p><b>CA Alberta Provincial (Canada, 3/2023).</b><br/><b>[Dimethylbenzene]</b><br/>OEL: 100 ppm 8 hours.<br/>OEL: 651 mg/m<sup>3</sup> 15 minutes.<br/>OEL: 150 ppm 15 minutes.<br/>OEL: 434 mg/m<sup>3</sup> 8 hours.</p> <p><b>CA British Columbia Provincial (Canada, 8/2023).</b> <b>[Xylene (o, m &amp; p isomers)]</b><br/>TWA: 100 ppm 8 hours.<br/>STEL: 150 ppm 15 minutes.</p> <p><b>CA Quebec Provincial (Canada, 7/2023).</b><br/><b>[Xylene]</b><br/>TWAEV: 100 ppm 8 hours.<br/>TWAEV: 434 mg/m<sup>3</sup> 8 hours.<br/>STEV: 150 ppm 15 minutes.<br/>STEV: 651 mg/m<sup>3</sup> 15 minutes.</p> <p><b>CA Ontario Provincial (Canada, 6/2019).</b><br/><b>[Xylene (o-, m-, p-isomers)]</b><br/>STEL: 150 ppm 15 minutes.<br/>TWA: 100 ppm 8 hours.</p> <p><b>CA Saskatchewan Provincial (Canada, 7/2013).</b> <b>[Xylene]</b><br/>STEL: 150 ppm 15 minutes.<br/>TWA: 100 ppm 8 hours.</p> |
| Ethylbenzene    | 100-41-4  | <p><b>CA Alberta Provincial (Canada, 3/2023).</b><br/>OEL: 100 ppm 8 hours.<br/>OEL: 434 mg/m<sup>3</sup> 8 hours.<br/>OEL: 543 mg/m<sup>3</sup> 15 minutes.<br/>OEL: 125 ppm 15 minutes.</p> <p><b>CA British Columbia Provincial (Canada, 8/2023).</b><br/>TWA: 20 ppm 8 hours.</p> <p><b>CA Ontario Provincial (Canada, 6/2019).</b><br/>TWA: 20 ppm 8 hours.</p> <p><b>CA Quebec Provincial (Canada, 7/2023).</b><br/>TWAEV: 20 ppm 8 hours.</p> <p><b>CA Saskatchewan Provincial (Canada, 7/2013).</b><br/>STEL: 125 ppm 15 minutes.<br/>TWA: 100 ppm 8 hours.</p>  |

## Section 8. Exposure controls/personal protection

### Occupational exposure limits (Mexico)

| Ingredient name       | CAS #     | Exposure limits   |
|-----------------------|-----------|---|
| Isobutyl Acetate      | 110-19-0  | <b>NOM-010-STPS-2014 (Mexico, 4/2016).</b><br>TWA: 150 ppm 8 hours.   |
| Toluene               | 108-88-3  | <b>NOM-010-STPS-2014 (Mexico, 4/2016).</b><br>TWA: 20 ppm 8 hours.  |
| 2-Propanol            | 67-63-0   | <b>NOM-010-STPS-2014 (Mexico, 4/2016).</b><br>TWA: 200 ppm 8 hours.<br>STEL: 400 ppm 15 minutes.                            |
| Methyl Ethyl Ketone   | 78-93-3   | <b>NOM-010-STPS-2014 (Mexico, 4/2016).</b><br>TWA: 200 ppm 8 hours.<br>STEL: 300 ppm 15 minutes.                            |
| 2-Methyl-1-propanol   | 78-83-1   | <b>NOM-010-STPS-2014 (Mexico, 4/2016).</b><br>TWA: 50 ppm 8 hours.  |
| 2-Butoxyethanol       | 111-76-2  | <b>NOM-010-STPS-2014 (Mexico, 4/2016).</b><br>TWA: 20 ppm 8 hours.  |
| Xylene, mixed isomers | 1330-20-7 | <b>NOM-010-STPS-2014 (Mexico, 4/2016).</b><br><b>[Xileno, mezcla]</b><br>STEL: 150 ppm 15 minutes.<br>TWA: 100 ppm 8 hours. |

### Biological exposure indices (United States)

| Ingredient name       | Exposure indices   |
|-----------------------|--|
| Toluene               | <b>ACGIH BEI (United States, 7/2023)</b><br>BEI: 0.03 mg/l, toluene [in urine]. Sampling time: end of shift.<br>BEI: 0.3 mg/g creatinine, o-cresol [in urine]. Sampling time: end of shift.<br>BEI: 0.02 mg/l, toluene [in blood]. Sampling time: prior to last shift of workweek. |
| 2-Propanol            | <b>ACGIH BEI (United States, 7/2023)</b><br>BEI: 40 mg/l, acetone [in urine]. Sampling time: end of shift at end of workweek.  |
| Methyl Ethyl Ketone   | <b>ACGIH BEI (United States, 7/2023)</b><br>BEI: 2 mg/l, methyl ethyl ketone [in urine]. Sampling time: end of shift.  |
| 2-Butoxyethanol       | <b>ACGIH BEI (United States, 7/2023)</b><br>BEI: 200 mg/g creatinine, butoxyacetic acid (BAA) [in urine]. Sampling time: end of shift.   |
| Xylene, mixed isomers | <b>ACGIH BEI (United States, 7/2023) [xylenes (technical or commercial grades)]</b><br>BEI: 0.3 g/g creatinine, methylhippuric acids [in urine]. Sampling time: end of shift.  |
| Ethylbenzene          | <b>ACGIH BEI (United States, 7/2023)</b><br>BEI: 0.15 g/g creatinine, sum of mandelic acid and phenylglyoxylic acid [in urine]. Sampling time: end of shift.   |

### Biological exposure indices (Canada)

No exposure indices known.

## Section 8. Exposure controls/personal protection

### [Biological exposure indices \(Mexico\)](#)

| Ingredient name     | Exposure indices   |
|---------------------|--|
| Toluene             | <p><b>Official Mexican STANDARD NOM-047-SSA1-2011, Environmental Health-Biological exposure indices for personnel occupationally exposed to chemical substances. (Mexico, 6/2012)</b></p> <p>BEI: 0.05 mg/L, toluene [in blood]. Sampling time: sample time not specified.</p> <p>BEI: 1.6 g/g creatinine [Basal level.The determinant may be present in the biological sample obtained from subjects who have not been occupationally exposed, at a concentration that could affect the interpretation of the results. These background levels are included in the valu; non-specific.The determinant is nonspecific, since it can be found after exposure to other chemicals.], hippuric acid [in urine]. Sampling time: at the end of the work shift.</p> <p>BEI: 0.5 mg/L [Basal level.The determinant may be present in the biological sample obtained from subjects who have not been occupationally exposed, at a concentration that could affect the interpretation of the results. These background levels are included in the valu], o-cresol [in urine]. Sampling time: at the end of the work shift.</p> |
| 2-Propanol          | <p><b>Official Mexican STANDARD NOM-047-SSA1-2011, Environmental Health-Biological exposure indices for personnel occupationally exposed to chemical substances. (Mexico, 6/2012)</b></p> <p>BEI: 40 mg/L [non-specific.The determinant is nonspecific, since it can be found after exposure to other chemicals.], acetone [in urine]. Sampling time: at the end of the shift at the end of the work week.</p>   |
| Methyl Ethyl Ketone | <p><b>Official Mexican STANDARD NOM-047-SSA1-2011, Environmental Health-Biological exposure indices for personnel occupationally exposed to chemical substances. (Mexico, 6/2012)</b></p> <p>BEI: 2 mg/L, MEK [in urine]. Sampling time: at the end of the work shift.</p>   |
| 2-Butoxyethanol     | <p><b>Official Mexican STANDARD NOM-047-SSA1-2011, Environmental Health-Biological exposure indices for personnel occupationally exposed to chemical substances. (Mexico, 6/2012)</b></p> <p>BEI: 200 mg/g creatinine, butoxyacetic acid (BAA) [in urine]. Sampling time: exposure sample at the end of the work shift.</p>  |

# Section 8. Exposure controls/personal protection

Xylene, mixed isomers

**Official Mexican STANDARD NOM-047-SSA1-2011, Environmental Health-Biological exposure indices for personnel occupationally exposed to chemical substances. (Mexico, 6/2012) [xylenes (technical or commercial grade)]**

BEI: 1.5 g/g creatinine, methyl hippuric acids [in urine]. Sampling time: at the end of the work shift.

**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.

**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. Contaminated work clothing should not be allowed out of the workplace. 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 and/ or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

**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

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

### Appearance

|   |  |
|---|--|
| Physical state  | : Liquid.  |
| Color   | : Silver.  |
| Odor  | : Not available.                                       |
| Odor threshold  | : Not available.                                       |
| pH  | : Not applicable.                                      |
| Melting point/freezing point                            | : Not available.                                       |
| Boiling point, initial boiling point, and boiling range | : 78°C (172.4°F)                                       |
| Flash point   | : Closed cup: 2°C (35.6°F) [Pensky-Martens Closed Cup] |
| Evaporation rate  | : 89 (butyl acetate = 1)                               |
| Flammability  | : Flammable liquid.                                    |
| Lower and upper explosion limit/flammability limit      | : Lower: 0.7%<br>Upper: 12.7%                          |
| Vapor pressure  | : 12.1 kPa (90.6 mm Hg)                                |
| Relative vapor density                                  | : 2.07 [Air = 1]                                       |
| Relative density  | : 0.9  |
| Solubility(ies)   | :  |

| Media      | Result      |
|------------|-------------|
| cold water | Not soluble |

|  |  |
|--|--|
| Partition coefficient: n-octanol/water | : Not applicable.  |
| Auto-ignition temperature              | : Not available.   |
| Decomposition temperature              | : Not available.   |
| Viscosity                              | : Kinematic (40°C (104°F)): <20.5 mm <sup>2</sup> /s (<20.5 cSt) |
| Molecular weight                       | : Not applicable.  |
| Heat of combustion                     | : 26.56 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). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapor to accumulate in low or confined areas. |
| Incompatible materials             | : Reactive or incompatible with the following materials:<br>oxidizing materials  |

## Section 10. Stability and reactivity

**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 |
|--|-----------------------|------------|-------------------------|----------|
| Isobutyl Acetate   | LD50 Dermal           | Rabbit     | >17400 mg/kg            | -        |
|  | LD50 Oral             | Rat        | 13400 mg/kg             | -        |
| Toluene  | LC50 Inhalation Vapor | Rat        | 49 g/m <sup>3</sup>     | 4 hours  |
|  | LD50 Oral             | Rat        | 636 mg/kg               | -        |
| 2-Propanol   | LD50 Dermal           | Rabbit     | 12800 mg/kg             | -        |
|  | LD50 Oral             | Rat        | 5000 mg/kg              | -        |
| Methyl Ethyl Ketone  | LD50 Dermal           | Rabbit     | 6480 mg/kg              | -        |
|  | LD50 Oral             | Rat        | 2737 mg/kg              | -        |
| Cellulose Nitrate  | LD50 Oral             | Rat        | >5 g/kg                 | -        |
| 2-Methyl-1-propanol  | LC50 Inhalation Vapor | Rat        | 19200 mg/m <sup>3</sup> | 4 hours  |
|  | LD50 Dermal           | Rabbit     | 3400 mg/kg              | -        |
| 2-Butoxyethanol  | LD50 Oral             | Rat        | 2460 mg/kg              | -        |
|  | LCLo Inhalation Vapor | Guinea pig | >3.1 mg/l               | 1 hours  |
| Light Aromatic Hydrocarbons<br>Hydrotreated Heavy<br>Petroleum Naphtha | LD50 Dermal           | Guinea pig | >2000 mg/kg             | -        |
|  | LD50 Oral             | Rat        | 1300 mg/kg              | -        |
| Tricresyl Phosphate  | LD50 Oral             | Rat        | 8400 mg/kg              | -        |
|  | LD50 Dermal           | Rat        | 8500 mg/m <sup>3</sup>  | 4 hours  |
| Xylene, mixed isomers  | LD50 Oral             | Rat        | >6 g/kg                 | -        |
|  | LD50 Dermal           | Rabbit     | >10000 mg/kg            | -        |
| Ethylbenzene   | LD50 Oral             | Rat        | 3 g/kg                  | -        |
|  | LD50 Dermal           | Rat        | 6700 ppm                | 4 hours  |
|  | LD50 Oral             | Rat        | 4300 mg/kg              | -        |
|  | LD50 Dermal           | Rabbit     | >5000 mg/kg             | -        |
|  | LD50 Oral             | Rat        | 3500 mg/kg              | -        |

#### Irritation/Corrosion

| Product/ingredient name | Result                   | Species | Score | Exposure           | Observation |
|-------------------------|--------------------------|---------|-------|--------------------|-------------|
| Isobutyl Acetate        | Eyes - Moderate irritant | Rabbit  | -     | 24 hours 500 mg    | -           |
|                         | Skin - Mild irritant     | Rabbit  | -     | 500 mg             | -           |
|                         | Skin - Moderate irritant | Rabbit  | -     | 24 hours 500 mg    | -           |
| Toluene                 | Eyes - Mild irritant     | Rabbit  | -     | 0.5 minutes 100 mg | -           |
|                         | Eyes - Mild irritant     | Rabbit  | -     | 870 ug             | -           |
|                         | Eyes - Severe irritant   | Rabbit  | -     | 24 hours 2 mg      | -           |
|                         | Skin - Mild irritant     | Pig     | -     | 24 hours 250 uL    | -           |
|                         | Skin - Mild irritant     | Rabbit  | -     | 435 mg             | -           |
|                         | Skin - Moderate irritant | Rabbit  | -     | 24 hours 20 mg     | -           |
| 2-Propanol              | Skin - Moderate irritant | Rabbit  | -     | 500 mg             | -           |
|                         | Eyes - Moderate irritant | Rabbit  | -     | 10 mg              | -           |
|                         | Eyes - Moderate irritant | Rabbit  | -     | 24 hours 100 mg    | -           |
| Methyl Ethyl Ketone     | Eyes - Severe irritant   | Rabbit  | -     | 100 mg             | -           |
|                         | Skin - Mild irritant     | Rabbit  | -     | 500 mg             | -           |
|                         | Skin - Mild irritant     | Rabbit  | -     | 24 hours 14 mg     | -           |

## Section 11. Toxicological information

|                             |                          |        |   |                     |   |
|-----------------------------|--------------------------|--------|---|---------------------|---|
| 2-Butoxyethanol             | Skin - Moderate irritant | Rabbit | - | mg<br>24 hours 500  | - |
|                             | Eyes - Moderate irritant | Rabbit | - | mg<br>24 hours 100  | - |
| Light Aromatic Hydrocarbons | Eyes - Severe irritant   | Rabbit | - | 100 mg              | - |
|                             | Skin - Mild irritant     | Rabbit | - | 500 mg              | - |
|                             | Eyes - Mild irritant     | Rabbit | - | 24 hours 100        | - |
| Tricresyl Phosphate         | Eyes - Mild irritant     | Rabbit | - | uL<br>24 hours 500  | - |
| Xylene, mixed isomers       | Skin - Mild irritant     | Rabbit | - | mg<br>500 mg        | - |
|                             | Eyes - Mild irritant     | Rabbit | - | 87 mg               | - |
|                             | Eyes - Severe irritant   | Rabbit | - | 24 hours 5          | - |
| Ethylbenzene                | Skin - Mild irritant     | Rat    | - | mg<br>8 hours 60 uL | - |
|                             | Skin - Moderate irritant | Rabbit | - | 100 %               | - |
|                             | Skin - Moderate irritant | Rabbit | - | 24 hours 500        | - |
|                             | Eyes - Severe irritant   | Rabbit | - | mg<br>500 mg        | - |
|                             | Skin - Mild irritant     | Rabbit | - | 24 hours 15         | - |

### Sensitization

Not available.

### Mutagenicity

Not available.

### Carcinogenicity

Not available.

### Classification

| Product/ingredient name | OSHA | IARC | NTP |
|-------------------------|------|------|-----|
| Toluene                 | -    | 3    | -   |
| 2-Propanol              | -    | 3    | -   |
| 2-Butoxyethanol         | -    | 3    | -   |
| Xylene, mixed isomers   | -    | 3    | -   |
| Ethylbenzene            | -    | 2B   | -   |

### Reproductive toxicity

Not available.

### Teratogenicity

Not available.

### Specific target organ toxicity (single exposure)

| Name                              | Category   | Route of exposure | Target organs                |
|-----------------------------------|------------|-------------------|------------------------------|
| Isobutyl Acetate                  | Category 3 | -                 | Narcotic effects             |
| Toluene                           | Category 3 | -                 | Narcotic effects             |
| 2-Propanol                        | Category 3 | -                 | Narcotic effects             |
| Lt. Aliphatic Hydrocarbon Solvent | Category 3 | -                 | Narcotic effects             |
| Methyl Ethyl Ketone               | Category 3 | -                 | Respiratory tract irritation |
| 2-Methyl-1-propanol               | Category 3 | -                 | Narcotic effects             |
|                                   | Category 3 | -                 | Respiratory tract irritation |



# Section 11. Toxicological information

|                                      |            |   |                              |
|--------------------------------------|------------|---|------------------------------|
| 2-Butoxyethanol                      | Category 3 | - | Narcotic effects             |
| Light Aromatic Hydrocarbons          | Category 3 | - | Narcotic effects             |
|                                      | Category 3 | - | Respiratory tract irritation |
| Hydrotreated Heavy Petroleum Naphtha | Category 3 | - | Narcotic effects             |
| Xylene, mixed isomers                | Category 3 | - | Narcotic effects             |
|                                      | Category 3 | - | Respiratory tract irritation |
| Ethylbenzene                         | Category 3 | - | Narcotic effects             |
|                                      | Category 3 | - | Narcotic effects             |

**Specific target organ toxicity (repeated exposure)**

| Name                  | Category   | Route of exposure | Target organs |
|-----------------------|------------|-------------------|---------------|
| Toluene               | Category 2 | -                 | -             |
| Methyl Ethyl Ketone   | Category 2 | -                 | -             |
| Xylene, mixed isomers | Category 2 | -                 | -             |
| Ethylbenzene          | Category 2 | -                 | -             |

**Aspiration hazard**

| Name                                 | Result                         |
|--------------------------------------|--------------------------------|
| Toluene                              | ASPIRATION HAZARD - Category 1 |
| Lt. Aliphatic Hydrocarbon Solvent    | ASPIRATION HAZARD - Category 1 |
| Light Aromatic Hydrocarbons          | ASPIRATION HAZARD - Category 1 |
| Hydrotreated Heavy Petroleum Naphtha | ASPIRATION HAZARD - Category 1 |
| Xylene, mixed isomers                | ASPIRATION HAZARD - Category 1 |
| Ethylbenzene                         | ASPIRATION HAZARD - Category 1 |

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

**Potential acute health effects**

- Eye contact** : Causes serious eye damage.
- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
- Skin contact** : Causes skin irritation. May cause an allergic skin reaction.
- 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  
 watering  
 redness
- Inhalation** : Adverse symptoms may include the following:  
 nausea or vomiting  
 headache  
 drowsiness/fatigue  
 dizziness/vertigo  
 unconsciousness  
 reduced fetal weight  
 increase in fetal deaths  
 skeletal malformations

# Section 11. Toxicological information

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

**Ingestion** : Adverse symptoms may include the following:  
stomach pains  
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. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

**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                | 6733.24 mg/kg  |
| Dermal              | 26534.69 mg/kg |
| Inhalation (vapors) | 34.61 mg/l     |

## Section 12. Ecological information

### Toxicity

| Product/ingredient name           | Result                               | Species  | Exposure |
|-----------------------------------|--------------------------------------|--|----------|
| Toluene                           | Acute EC50 >433 ppm Marine water     | Algae - <i>Skeletonema costatum</i>  | 96 hours |
|                                   | Acute EC50 11600 µg/l Fresh water    | Crustaceans - <i>Gammarus pseudolimnaeus</i> - Adult                       | 48 hours |
| 2-Propanol                        | Acute EC50 6000 µg/l Fresh water     | Daphnia - <i>Daphnia magna</i> - Juvenile (Fledgling, Hatchling, Weanling) | 48 hours |
|                                   | Acute LC50 5500 µg/l Fresh water     | Fish - <i>Oncorhynchus kisutch</i> - Fry                                   | 96 hours |
|                                   | Chronic NOEC 1 mg/l Fresh water      | Daphnia - <i>Daphnia magna</i>   | 21 days  |
|                                   | Acute EC50 7550 mg/l Fresh water     | Daphnia - <i>Daphnia magna</i> - Neonate                                   | 48 hours |
| Lt. Aliphatic Hydrocarbon Solvent | Acute LC50 1400000 µg/l Marine water | Crustaceans - <i>Crangon crangon</i>                                       | 48 hours |
|                                   | Acute LC50 4200 mg/l Fresh water     | Fish - <i>Rasbora heteromorpha</i>   | 96 hours |
| Methyl Ethyl Ketone               | Acute LC50 >100000 ppm Fresh water   | Fish - <i>Oncorhynchus mykiss</i>  | 96 hours |
|                                   | Acute EC50 >500000 µg/l Marine water | Algae - <i>Skeletonema costatum</i>  | 96 hours |
| Aluminum                          | Acute EC50 5091000 µg/l Fresh water  | Daphnia - <i>Daphnia magna</i> - Larvae                                    | 48 hours |
|                                   | Acute LC50 3220000 µg/l Fresh water  | Fish - <i>Pimephales promelas</i>  | 96 hours |
|                                   | Acute LC50 38000 µg/l Fresh water    | Daphnia - <i>Daphnia magna</i>   | 48 hours |
|                                   | Acute LC50 120 µg/l Fresh water      | Fish - <i>Oncorhynchus mykiss</i> - Embryo                                 | 96 hours |
| 2-Methyl-1-propanol               | Chronic NOEC 9 mg/l Fresh water      | Aquatic plants - <i>Ceratophyllum demersum</i>                             | 3 days   |
|                                   | Acute LC50 600 mg/l Marine water     | Crustaceans - <i>Artemia salina</i>  | 48 hours |
| 2-Butoxyethanol                   | Acute LC50 1030000 µg/l Fresh water  | Daphnia - <i>Daphnia magna</i> - Neonate                                   | 48 hours |
|                                   | Acute LC50 1330000 µg/l Fresh water  | Fish - <i>Oncorhynchus mykiss</i>  | 96 hours |
|                                   | Chronic NOEC 4 mg/l Fresh water      | Daphnia - <i>Daphnia magna</i>   | 21 days  |
|                                   | Acute EC50 >1000 mg/l Fresh water    | Daphnia - <i>Daphnia magna</i>   | 48 hours |
| Tricresyl Phosphate               | Acute LC50 800000 µg/l Marine water  | Crustaceans - <i>Crangon crangon</i>                                       | 48 hours |
|                                   | Acute LC50 1250 ppm Marine water     | Fish - <i>Menidia beryllina</i>  | 96 hours |
| Xylene, mixed isomers             | Acute EC50 290 µg/l Fresh water      | Algae - <i>Stephanodiscus hantzschii</i> - Exponential growth phase        | 96 hours |
|                                   | Acute EC50 170 µg/l Fresh water      | Fish - <i>Gasterosteus aculeatus</i>                                       | 96 hours |
|                                   | Acute LC50 0.09 mg/l Fresh water     | Daphnia - <i>Daphnia magna</i> - Instar                                    | 48 hours |
| Ethylbenzene                      | Chronic NOEC 0.32 µg/l Fresh water   | Fish - <i>Gasterosteus aculeatus</i> - Egg                                 | 35 days  |
|                                   | Acute LC50 8500 µg/l Marine water    | Crustaceans - <i>Palaemonetes pugio</i>                                    | 48 hours |
| Ethylbenzene                      | Acute LC50 13400 µg/l Fresh water    | Fish - <i>Pimephales promelas</i>  | 96 hours |
|                                   | Acute EC50 4900 µg/l Marine water    | Algae - <i>Skeletonema costatum</i>  | 72 hours |
|                                   | Acute EC50 7700 µg/l Marine water    | Algae - <i>Skeletonema costatum</i>  | 96 hours |
|                                   | Acute EC50 6.53 mg/l Marine water    | Crustaceans - <i>Artemia sp.</i> - Nauplii                                 | 48 hours |
|                                   | Acute EC50 2.93 mg/l Fresh water     | Daphnia - <i>Daphnia magna</i> - Neonate                                   | 48 hours |
|                                   | Acute LC50 4200 µg/l Fresh water     | Fish - <i>Oncorhynchus mykiss</i>  | 96 hours |

### Persistence and degradability

|                                       |   |                               |             |                |                         |       |
|---------------------------------------|---|-------------------------------|-------------|----------------|-------------------------|-------|
| <b>Date of issue/Date of revision</b> | : 5/19/2024                                     | <b>Date of previous issue</b> | : 4/18/2024 | <b>Version</b> | : 20                    | 19/23 |
| L61S18                                | OPEX® Production Lacquer<br>Flamboyant Aluminum |                               |             |                | <b>SHW-85-NA-GHS-CA</b> |       |

## Section 12. Ecological information

| Product/ingredient name     | Aquatic half-life | Photolysis | Biodegradability |
|-----------------------------|-------------------|------------|------------------|
| Toluene                     | -                 | -          | Readily          |
| 2-Propanol                  | -                 | -          | Readily          |
| Methyl Ethyl Ketone         | -                 | -          | Readily          |
| 2-Methyl-1-propanol         | -                 | -          | Readily          |
| 2-Butoxyethanol             | -                 | -          | Readily          |
| Light Aromatic Hydrocarbons | -                 | -          | Readily          |
| Xylene, mixed isomers       | -                 | -          | Readily          |
| Ethylbenzene                | -                 | -          | Readily          |

### Bioaccumulative potential

| Product/ingredient name              | LogP <sub>ow</sub> | BCF         | Potential |
|--------------------------------------|--------------------|-------------|-----------|
| Toluene                              | -                  | 90          | Low       |
| Lt. Aliphatic Hydrocarbon Solvent    | -                  | 10 to 2500  | High      |
| Light Aromatic Hydrocarbons          | -                  | 10 to 2500  | High      |
| Hydrotreated Heavy Petroleum Naphtha | -                  | 10 to 2500  | High      |
| Tricresyl Phosphate                  | -                  | 794.33      | High      |
| Xylene, mixed isomers                | -                  | 8.1 to 25.9 | Low       |

### Mobility in soil

**Soil/water partition coefficient (K<sub>oc</sub>)** : 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. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## Section 14. Transport information

|                                | DOT<br>Classification | TDG<br>Classification | Mexico<br>Classification | IATA   | IMDG  |
|--------------------------------|-----------------------|-----------------------|--------------------------|--------|---|
| <b>UN number</b>               | UN1263                | UN1263                | UN1263                   | UN1263 | UN1263  |
| <b>UN proper shipping name</b> | PAINT                 | PAINT                 | PAINT                    | PAINT  | PAINT. Marine pollutant (Tricresyl Phosphate) |
|                                |                       |                       |                          |        |   |

## Section 14. Transport information

|                                   |  |  |  |  |  |
|-----------------------------------|--|--|--|--|--|
| <b>Transport hazard class(es)</b> | 3<br> | 3<br>   | 3<br> | 3<br>                 | 3<br>  |
| <b>Packing group</b>              | II   | II   | II   | II   | II   |
| <b>Environmental hazards</b>      | No.  | No.  | No.  | Yes. The environmentally hazardous substance mark is not required.                                       | Yes.   |
| <b>Additional information</b>     | -<br><br><u>ERG No.</u><br>128   | Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.18-2.19 (Class 3).<br><u>ERG No.</u><br>128 | -<br><br><u>ERG No.</u><br>128   | The environmentally hazardous substance mark may appear if required by other transportation regulations. | The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.<br><u>Emergency schedules</u> F-E, S-E   |

**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 IMO instruments** : Not available.

**Proper shipping name** : Not available.

## Section 15. Regulatory information

International regulations

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

## Section 15. Regulatory information

**International lists** :

- Australia inventory (AIC)**: Not determined.
- China inventory (IECSC)**: Not determined.
- Japan inventory (CSCL)**: Not determined.
- Japan inventory (ISHL)**: Not determined.
- Korea inventory (KECI)**: 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.)

|                  |   |   |
|------------------|---|---|
| Health           | * | 3 |
| Flammability     |   | 3 |
| Physical hazards |   | 3 |
|                  |   |   |

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 LIQUIDS - Category 2   | On basis of test data |
| SKIN CORROSION/IRRITATION - Category 2   | Calculation method    |
| SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1                                  | Calculation method    |
| SKIN SENSITIZATION - Category 1  | Calculation method    |
| CARCINOGENICITY - Category 2   | Calculation method    |
| TOXIC TO REPRODUCTION - Category 1B  | 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

## Section 16. Other information

as modified by the Protocol of 1978. ("Marpol" = marine pollution)

N/A = Not available

SGG = Segregation Group

UN = United Nations

✔ Indicates information that has changed from previously issued version.

### 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.