

# SAFETY DATA SHEET

L61Y36

## Section 1. Identification

**Product name** : OPEX® Production Lacquer  
Yellow

**Product code** : L61Y36

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

**Product type** : Liquid.

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

Paint or paint related material.

**Manufacturer** : THE SHERWIN-WILLIAMS COMPANY  
101 W. Prospect Avenue  
Cleveland, OH 44115

**National contact** : Sherwin-Williams Canada Inc.  
180 Brunel Road  
Mississauga, Ontario L4Z 1T5 Canada

**Emergency telephone number of the company** : US / Canada: (800) 424-9300  
Mexico: SETIQ 800-00-214-00 / 55-5559-1588 Available 24 hours and 365 days a year

**Product Information Telephone Number** : US / Canada: 866-722-9710  
Mexico: Not Available

**Transportation Emergency Telephone Number** : US / Canada: (800) 424-9300  
Mexico: SETIQ 800-00-214-00 / 55-5559-1588 Available 24 hours and 365 days a year

## Section 2. Hazards identification

**Classification of the substance or mixture** : FLAMMABLE LIQUIDS - Category 2  
ACUTE TOXICITY (oral) - Category 4  
SKIN CORROSION/IRRITATION - Category 2  
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A  
SKIN SENSITIZATION - Category 1  
CARCINOGENICITY - Category 2  
TOXIC TO REPRODUCTION - Category 2  
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 1  
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 acute toxicity: 14.3% (oral), 34.6% (dermal), 51.7% (inhalation)

### GHS label elements

<b>Date of issue/Date of revision</b> : 1/22/2024	<b>Date of previous issue</b> : 9/13/2023	<b>Version</b> : 18	1/24
L61Y36	OPEX® Production Lacquer Yellow	SHW-85-NA-GHS-CA	

## Section 2. Hazards identification

### Hazard pictograms



### Signal word

: Danger

### Hazard statements

: Highly flammable liquid and vapor.  
Harmful if swallowed.  
May be fatal if swallowed and enters airways.  
Causes skin irritation.  
May cause an allergic skin reaction.  
Causes serious eye irritation.  
May cause respiratory irritation.  
May cause drowsiness or dizziness.  
Suspected of causing cancer.  
Suspected of damaging fertility or the unborn child.  
Causes damage to organs.  
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. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace.

#### Response

: IF exposed: Call a POISON CENTER or doctor. 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. Rinse mouth. 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. If eye irritation persists: Get medical advice or attention.

#### 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

: 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

Ingredient name	% by weight	CAS number
Isobutyl Acetate	17.36	110-19-0
Lt. Aliphatic Hydrocarbon Solvent	11.96	64742-89-8
2-Propanol	10.39	67-63-0
Cellulose Nitrate	9.6	9004-70-0
Toluene	7.6	108-88-3
Xylene, mixed isomers	4.09	1330-20-7
Methyl Ethyl Ketone	3.98	78-93-3
2-Butoxyethanol	3.09	111-76-2
Methanol	2.38	67-56-1
Rosin Ester	2.38	68038-41-5
Titanium Dioxide	2.36	13463-67-7
2-Methyl-1-propanol	1.82	78-83-1
Ethylbenzene	0.72	100-41-4
Med. Aliphatic Hydrocarbon Solvent	0.22	64742-88-7

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 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. If necessary, call a poison center or physician.
- 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** : 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. Get medical attention. If necessary, call a poison center or 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. 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.

## Section 4. First aid measures

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : Causes damage to organs following a single exposure if inhaled. Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.
- Skin contact** : Causes damage to organs following a single exposure in contact with skin. Causes skin irritation. May cause an allergic skin reaction.
- Ingestion** : Harmful if swallowed. Causes damage to organs following a single exposure if swallowed. 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 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.

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

## Section 6. Accidental release measures

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). 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> TWA: 150 ppm 10 hours. TWA: 700 mg/m <sup>3</sup> 10 hours. <b>OSHA PEL (United States, 5/2018).</b> TWA: 150 ppm 8 hours. TWA: 700 mg/m <sup>3</sup> 8 hours. <b>ACGIH TLV (United States, 1/2023). [Butyl acetates all isomers]</b> STEL: 150 ppm 15 minutes. TWA: 50 ppm 8 hours.
Lt. Aliphatic Hydrocarbon Solvent 2-Propanol	64742-89-8 67-63-0	None. <b>ACGIH TLV (United States, 1/2023).</b> TWA: 200 ppm 8 hours. STEL: 400 ppm 15 minutes. <b>NIOSH REL (United States, 10/2020).</b> TWA: 400 ppm 10 hours. TWA: 980 mg/m <sup>3</sup> 10 hours. STEL: 500 ppm 15 minutes.

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L61Y36

OPEX® Production Lacquer  
Yellow

SHW-85-NA-GHS-CA




## Section 8. Exposure controls/personal protection

Cellulose Nitrate Toluene	9004-70-0 108-88-3	<p>STEL: 1225 mg/m<sup>3</sup> 15 minutes.  <b>OSHA PEL (United States, 5/2018).</b>  TWA: 400 ppm 8 hours.  TWA: 980 mg/m<sup>3</sup> 8 hours.</p>
Xylene, mixed isomers	1330-20-7	<p>None.  <b>OSHA PEL Z2 (United States, 2/2013).</b>  TWA: 200 ppm 8 hours.  CEIL: 300 ppm  AMP: 500 ppm 10 minutes.  <b>NIOSH REL (United States, 10/2020).</b>  TWA: 100 ppm 10 hours.  TWA: 375 mg/m<sup>3</sup> 10 hours.  STEL: 150 ppm 15 minutes.  STEL: 560 mg/m<sup>3</sup> 15 minutes.  <b>ACGIH TLV (United States, 1/2023).</b>  <b>Ototoxicant.</b>  TWA: 20 ppm 8 hours.</p>
Methyl Ethyl Ketone	78-93-3	<p><b>OSHA PEL (United States, 5/2018).</b>  <b>[Xylenes (o-, m-, p-isomers)]</b>  TWA: 100 ppm 8 hours.  TWA: 435 mg/m<sup>3</sup> 8 hours.  <b>ACGIH TLV (United States, 1/2023).</b> [p-xylene and mixtures containing p-xylene]  <b>Ototoxicant.</b>  TWA: 20 ppm 8 hours.  <b>ACGIH TLV (United States, 1/2023).</b>  TWA: 200 ppm 8 hours.  TWA: 590 mg/m<sup>3</sup> 8 hours.  STEL: 300 ppm 15 minutes.  STEL: 885 mg/m<sup>3</sup> 15 minutes.  <b>NIOSH REL (United States, 10/2020).</b>  TWA: 200 ppm 10 hours.  TWA: 590 mg/m<sup>3</sup> 10 hours.  STEL: 300 ppm 15 minutes.  STEL: 885 mg/m<sup>3</sup> 15 minutes.  <b>OSHA PEL (United States, 5/2018).</b>  TWA: 200 ppm 8 hours.  TWA: 590 mg/m<sup>3</sup> 8 hours.</p>
2-Butoxyethanol	111-76-2	<p><b>ACGIH TLV (United States, 1/2023).</b>  TWA: 20 ppm 8 hours.  <b>NIOSH REL (United States, 10/2020).</b>  <b>Absorbed through skin.</b>  TWA: 5 ppm 10 hours.  TWA: 24 mg/m<sup>3</sup> 10 hours.  <b>OSHA PEL (United States, 5/2018).</b>  <b>Absorbed through skin.</b>  TWA: 50 ppm 8 hours.  TWA: 240 mg/m<sup>3</sup> 8 hours.</p>
Methanol	67-56-1	<p><b>ACGIH TLV (United States, 1/2023).</b>  <b>Absorbed through skin.</b>  TWA: 200 ppm 8 hours.  TWA: 262 mg/m<sup>3</sup> 8 hours.  STEL: 250 ppm 15 minutes.  STEL: 328 mg/m<sup>3</sup> 15 minutes.  <b>NIOSH REL (United States, 10/2020).</b>  <b>Absorbed through skin.</b></p>

## Section 8. Exposure controls/personal protection

Rosin Ester Titanium Dioxide	68038-41-5 13463-67-7	<p>TWA: 200 ppm 10 hours. TWA: 260 mg/m<sup>3</sup> 10 hours. STEL: 250 ppm 15 minutes. STEL: 325 mg/m<sup>3</sup> 15 minutes. <b>OSHA PEL (United States, 5/2018).</b> TWA: 200 ppm 8 hours. TWA: 260 mg/m<sup>3</sup> 8 hours.</p> <p>None. <b>OSHA PEL (United States, 5/2018).</b> TWA: 15 mg/m<sup>3</sup> 8 hours. Form: Total dust <b>ACGIH TLV (United States, 1/2023).</b> TWA: 2.5 mg/m<sup>3</sup> 8 hours. Form: respirable fraction, finescale particles <b>ACGIH TLV (United States, 1/2023).</b> TWA: 50 ppm 8 hours. TWA: 152 mg/m<sup>3</sup> 8 hours. <b>NIOSH REL (United States, 10/2020).</b> TWA: 50 ppm 10 hours. TWA: 150 mg/m<sup>3</sup> 10 hours. <b>OSHA PEL (United States, 5/2018).</b> TWA: 100 ppm 8 hours. TWA: 300 mg/m<sup>3</sup> 8 hours. <b>ACGIH TLV (United States, 1/2023).</b> <b>Ototoxicant.</b> TWA: 20 ppm 8 hours. <b>NIOSH REL (United States, 10/2020).</b> TWA: 100 ppm 10 hours. TWA: 435 mg/m<sup>3</sup> 10 hours. STEL: 125 ppm 15 minutes. STEL: 545 mg/m<sup>3</sup> 15 minutes. <b>OSHA PEL (United States, 5/2018).</b> TWA: 100 ppm 8 hours. TWA: 435 mg/m<sup>3</sup> 8 hours.</p>
2-Methyl-1-propanol	78-83-1	<p><b>OSHA PEL (United States, 5/2018).</b> TWA: 200 ppm 8 hours. TWA: 260 mg/m<sup>3</sup> 8 hours.</p> <p>None. <b>OSHA PEL (United States, 5/2018).</b> TWA: 15 mg/m<sup>3</sup> 8 hours. Form: Total dust <b>ACGIH TLV (United States, 1/2023).</b> TWA: 2.5 mg/m<sup>3</sup> 8 hours. Form: respirable fraction, finescale particles <b>ACGIH TLV (United States, 1/2023).</b> TWA: 50 ppm 8 hours. TWA: 152 mg/m<sup>3</sup> 8 hours. <b>NIOSH REL (United States, 10/2020).</b> TWA: 50 ppm 10 hours. TWA: 150 mg/m<sup>3</sup> 10 hours. <b>OSHA PEL (United States, 5/2018).</b> TWA: 100 ppm 8 hours. TWA: 300 mg/m<sup>3</sup> 8 hours. <b>ACGIH TLV (United States, 1/2023).</b> <b>Ototoxicant.</b> TWA: 20 ppm 8 hours. <b>NIOSH REL (United States, 10/2020).</b> TWA: 100 ppm 10 hours. TWA: 435 mg/m<sup>3</sup> 10 hours. STEL: 125 ppm 15 minutes. STEL: 545 mg/m<sup>3</sup> 15 minutes. <b>OSHA PEL (United States, 5/2018).</b> TWA: 100 ppm 8 hours. TWA: 435 mg/m<sup>3</sup> 8 hours.</p>
Ethylbenzene	100-41-4	<p>TWA: 200 ppm 10 hours. TWA: 260 mg/m<sup>3</sup> 10 hours. STEL: 250 ppm 15 minutes. STEL: 325 mg/m<sup>3</sup> 15 minutes. <b>OSHA PEL (United States, 5/2018).</b> TWA: 200 ppm 8 hours. TWA: 260 mg/m<sup>3</sup> 8 hours.</p> <p>None. <b>OSHA PEL (United States, 5/2018).</b> TWA: 15 mg/m<sup>3</sup> 8 hours. Form: Total dust <b>ACGIH TLV (United States, 1/2023).</b> TWA: 2.5 mg/m<sup>3</sup> 8 hours. Form: respirable fraction, finescale particles <b>ACGIH TLV (United States, 1/2023).</b> TWA: 50 ppm 8 hours. TWA: 152 mg/m<sup>3</sup> 8 hours. <b>NIOSH REL (United States, 10/2020).</b> TWA: 50 ppm 10 hours. TWA: 150 mg/m<sup>3</sup> 10 hours. <b>OSHA PEL (United States, 5/2018).</b> TWA: 100 ppm 8 hours. TWA: 300 mg/m<sup>3</sup> 8 hours. <b>ACGIH TLV (United States, 1/2023).</b> <b>Ototoxicant.</b> TWA: 20 ppm 8 hours. <b>NIOSH REL (United States, 10/2020).</b> TWA: 100 ppm 10 hours. TWA: 435 mg/m<sup>3</sup> 10 hours. STEL: 125 ppm 15 minutes. STEL: 545 mg/m<sup>3</sup> 15 minutes. <b>OSHA PEL (United States, 5/2018).</b> TWA: 100 ppm 8 hours. TWA: 435 mg/m<sup>3</sup> 8 hours.</p>
Med. Aliphatic Hydrocarbon Solvent	64742-88-7	<p>TWA: 200 ppm 10 hours. TWA: 260 mg/m<sup>3</sup> 10 hours. STEL: 250 ppm 15 minutes. STEL: 325 mg/m<sup>3</sup> 15 minutes. <b>OSHA PEL (United States, 5/2018).</b> TWA: 200 ppm 8 hours. TWA: 260 mg/m<sup>3</sup> 8 hours.</p> <p>None. <b>OSHA PEL (United States, 5/2018).</b> TWA: 15 mg/m<sup>3</sup> 8 hours. Form: Total dust <b>ACGIH TLV (United States, 1/2023).</b> TWA: 2.5 mg/m<sup>3</sup> 8 hours. Form: respirable fraction, finescale particles <b>ACGIH TLV (United States, 1/2023).</b> TWA: 50 ppm 8 hours. TWA: 152 mg/m<sup>3</sup> 8 hours. <b>NIOSH REL (United States, 10/2020).</b> TWA: 50 ppm 10 hours. TWA: 150 mg/m<sup>3</sup> 10 hours. <b>OSHA PEL (United States, 5/2018).</b> TWA: 100 ppm 8 hours. TWA: 300 mg/m<sup>3</sup> 8 hours. <b>ACGIH TLV (United States, 1/2023).</b> <b>Ototoxicant.</b> TWA: 20 ppm 8 hours. <b>NIOSH REL (United States, 10/2020).</b> TWA: 100 ppm 10 hours. TWA: 435 mg/m<sup>3</sup> 10 hours. STEL: 125 ppm 15 minutes. STEL: 545 mg/m<sup>3</sup> 15 minutes. <b>OSHA PEL (United States, 5/2018).</b> TWA: 100 ppm 8 hours. 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, 6/2018).</b>  8 hrs OEL: 150 ppm 8 hours. 8 hrs OEL: 713 mg/m<sup>3</sup> 8 hours. <b>CA Saskatchewan Provincial (Canada, 7/2013).</b> STEL: 188 ppm 15 minutes. TWA: 150 ppm 8 hours. <b>CA Ontario Provincial (Canada, 6/2019).</b> <b>[butyl acetates, all isomers]</b> STEL: 150 ppm 15 minutes. TWA: 50 ppm 8 hours. <b>CA British Columbia Provincial (Canada, 6/2022).</b> <b>[butyl acetate, all isomers]</b> STEL: 150 ppm 15 minutes. TWA: 50 ppm 8 hours. <b>CA Quebec Provincial (Canada, 6/2022).</b></p>



## Section 8. Exposure controls/personal protection

Isopropyl alcohol	67-63-0	<p><b>[butyl acetates (all isomers)]</b>            STEV: 150 ppm 15 minutes.            TWAEV: 50 ppm 8 hours.  <b>CA Alberta Provincial (Canada, 6/2018).</b>            15 min OEL: 984 mg/m<sup>3</sup> 15 minutes.            8 hrs OEL: 200 ppm 8 hours.            15 min OEL: 400 ppm 15 minutes.            8 hrs OEL: 492 mg/m<sup>3</sup> 8 hours.  <b>CA British Columbia Provincial (Canada, 6/2022).</b>            TWA: 200 ppm 8 hours.            STEL: 400 ppm 15 minutes.  <b>CA Ontario Provincial (Canada, 6/2019).</b>            TWA: 200 ppm 8 hours.            STEL: 400 ppm 15 minutes.  <b>CA Quebec Provincial (Canada, 6/2022).</b>            TWAEV: 200 ppm 8 hours.            STEV: 400 ppm 15 minutes.  <b>CA Saskatchewan Provincial (Canada, 7/2013).</b>            STEL: 400 ppm 15 minutes.            TWA: 200 ppm 8 hours.</p>
Toluene	108-88-3	<p><b>CA Alberta Provincial (Canada, 6/2018).</b>  <b>Absorbed through skin.</b>            8 hrs OEL: 50 ppm 8 hours.            8 hrs OEL: 188 mg/m<sup>3</sup> 8 hours.  <b>CA British Columbia Provincial (Canada, 6/2022).</b>            TWA: 20 ppm 8 hours.  <b>CA Ontario Provincial (Canada, 6/2019).</b>            TWA: 20 ppm 8 hours.  <b>CA Quebec Provincial (Canada, 6/2022).</b>            TWAEV: 20 ppm 8 hours.  <b>CA Saskatchewan Provincial (Canada, 7/2013). Absorbed through skin.</b>            STEL: 60 ppm 15 minutes.            TWA: 50 ppm 8 hours.</p>
Xylene	1330-20-7	<p><b>CA Alberta Provincial (Canada, 6/2018).</b>  <b>[Dimethylbenzene (o,m &amp; p isomers)]</b>            8 hrs OEL: 100 ppm 8 hours.            15 min OEL: 651 mg/m<sup>3</sup> 15 minutes.            15 min OEL: 150 ppm 15 minutes.            8 hrs OEL: 434 mg/m<sup>3</sup> 8 hours.  <b>CA British Columbia Provincial (Canada, 6/2022). [Xylene (o, m &amp; p isomers)]</b>            TWA: 100 ppm 8 hours.            STEL: 150 ppm 15 minutes.  <b>CA Quebec Provincial (Canada, 6/2022).</b>  <b>[Xylene (o-,m-,p- isomers)]</b>            TWAEV: 100 ppm 8 hours.            TWAEV: 434 mg/m<sup>3</sup> 8 hours.            STEV: 150 ppm 15 minutes.            STEV: 651 mg/m<sup>3</sup> 15 minutes.  <b>CA Ontario Provincial (Canada, 6/2019).</b>  <b>[Xylene (o-, m-, p-isomers)]</b>            STEL: 150 ppm 15 minutes.            TWA: 100 ppm 8 hours.</p>

## Section 8. Exposure controls/personal protection

Methyl ethyl ketone	78-93-3	<p><b>CA Saskatchewan Provincial (Canada, 7/2013). [Xylene (o, m-, p-isomers)]</b>            STEL: 150 ppm 15 minutes.            TWA: 100 ppm 8 hours.</p> <p><b>CA Alberta Provincial (Canada, 6/2018).</b>            15 min OEL: 300 ppm 15 minutes.            8 hrs OEL: 200 ppm 8 hours.            8 hrs OEL: 590 mg/m<sup>3</sup> 8 hours.            15 min OEL: 885 mg/m<sup>3</sup> 15 minutes.</p> <p><b>CA British Columbia Provincial (Canada, 6/2022).</b>            TWA: 50 ppm 8 hours.            STEL: 100 ppm 15 minutes.</p> <p><b>CA Ontario Provincial (Canada, 6/2019).</b>            TWA: 200 ppm 8 hours.            STEL: 300 ppm 15 minutes.</p> <p><b>CA Quebec Provincial (Canada, 6/2022).</b>            TWAEV: 50 ppm 8 hours.            TWAEV: 150 mg/m<sup>3</sup> 8 hours.            STEV: 100 ppm 15 minutes.            STEV: 300 mg/m<sup>3</sup> 15 minutes.</p> <p><b>CA Saskatchewan Provincial (Canada, 7/2013).</b>            STEL: 300 ppm 15 minutes.            TWA: 200 ppm 8 hours.</p>
2-Butoxyethanol	111-76-2	<p><b>CA Alberta Provincial (Canada, 6/2018).</b>            8 hrs OEL: 97 mg/m<sup>3</sup> 8 hours.            8 hrs OEL: 20 ppm 8 hours.</p> <p><b>CA British Columbia Provincial (Canada, 6/2022).</b>            TWA: 20 ppm 8 hours.</p> <p><b>CA Ontario Provincial (Canada, 6/2019).</b>            TWA: 20 ppm 8 hours.</p> <p><b>CA Quebec Provincial (Canada, 6/2022).</b>            TWAEV: 20 ppm 8 hours.</p> <p><b>CA Saskatchewan Provincial (Canada, 7/2013).</b>            STEL: 30 ppm 15 minutes.            TWA: 20 ppm 8 hours.</p>
Methyl alcohol	67-56-1	<p><b>CA Alberta Provincial (Canada, 6/2018).</b>  <b>Absorbed through skin.</b>            8 hrs OEL: 262 mg/m<sup>3</sup> 8 hours.            8 hrs OEL: 200 ppm 8 hours.            15 min OEL: 250 ppm 15 minutes.            15 min OEL: 328 mg/m<sup>3</sup> 15 minutes.</p> <p><b>CA British Columbia Provincial (Canada, 6/2022). Absorbed through skin.</b>            TWA: 200 ppm 8 hours.            STEL: 250 ppm 15 minutes.</p> <p><b>CA Ontario Provincial (Canada, 6/2019).</b>  <b>Absorbed through skin.</b>            TWA: 200 ppm 8 hours.            STEL: 250 ppm 15 minutes.</p> <p><b>CA Quebec Provincial (Canada, 6/2022).</b>  <b>Absorbed through skin.</b>            TWAEV: 200 ppm 8 hours.            TWAEV: 262 mg/m<sup>3</sup> 8 hours.</p>

## Section 8. Exposure controls/personal protection

Isobutyl alcohol	78-83-1	<p>STEV: 250 ppm 15 minutes.  STEV: 328 mg/m<sup>3</sup> 15 minutes.  <b>CA Saskatchewan Provincial (Canada, 7/2013). Absorbed through skin.</b>  STEL: 250 ppm 15 minutes.  TWA: 200 ppm 8 hours.  <b>CA Alberta Provincial (Canada, 6/2018).</b>  8 hrs OEL: 50 ppm 8 hours.  8 hrs OEL: 152 mg/m<sup>3</sup> 8 hours.  <b>CA British Columbia Provincial (Canada, 6/2022).</b>  TWA: 50 ppm 8 hours.  <b>CA Ontario Provincial (Canada, 6/2019).</b>  TWA: 50 ppm 8 hours.  <b>CA Quebec Provincial (Canada, 6/2022).</b>  TWA: 50 ppm 8 hours.  TWA: 152 mg/m<sup>3</sup> 8 hours.  <b>CA Saskatchewan Provincial (Canada, 7/2013).</b>  STEL: 60 ppm 15 minutes.  TWA: 50 ppm 8 hours.</p>
Ethylbenzene	100-41-4	<p><b>CA Alberta Provincial (Canada, 6/2018).</b>  8 hrs OEL: 100 ppm 8 hours.  8 hrs OEL: 434 mg/m<sup>3</sup> 8 hours.  15 min OEL: 543 mg/m<sup>3</sup> 15 minutes.  15 min OEL: 125 ppm 15 minutes.  <b>CA British Columbia Provincial (Canada, 6/2022).</b>  TWA: 20 ppm 8 hours.  <b>CA Ontario Provincial (Canada, 6/2019).</b>  TWA: 20 ppm 8 hours.  <b>CA Quebec Provincial (Canada, 6/2022).</b>  TWA: 20 ppm 8 hours.  <b>CA Saskatchewan Provincial (Canada, 7/2013).</b>  STEL: 125 ppm 15 minutes.  TWA: 100 ppm 8 hours.</p>

### Occupational exposure limits (Mexico)

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

## Section 8. Exposure controls/personal protection

methanol	67-56-1	<b>NOM-010-STPS-2014 (Mexico, 4/2016).</b> <b>Absorbed through skin.</b> TWA: 200 ppm 8 hours. STEL: 250 ppm 15 minutes.
2-methylpropan-1-ol	78-83-1	<b>NOM-010-STPS-2014 (Mexico, 4/2016).</b> TWA: 50 ppm 8 hours.

### Biological exposure indices (United States)

Ingredient name	Exposure indices
2-Propanol	<b>ACGIH BEI (United States, 1/2023)</b> BEI: 40 mg/l, acetone [in urine]. Sampling time: end of shift at end of workweek.
Toluene	<b>ACGIH BEI (United States, 1/2023)</b> BEI: 0.03 mg/l, toluene [in urine]. Sampling time: end of shift. BEI: 0.3 mg/g creatinine, o-cresol [in urine]. Sampling time: end of shift. BEI: 0.02 mg/l, toluene [in blood]. Sampling time: prior to last shift of workweek.
Xylene, mixed isomers	<b>ACGIH BEI (United States, 1/2023) [xylenes (technical or commercial grade)]</b> BEI: 1.5 g/g creatinine, methylhippuric acids [in urine]. Sampling time: end of shift.
Methyl Ethyl Ketone	<b>ACGIH BEI (United States, 1/2023)</b> BEI: 2 mg/l, methyl ethyl ketone [in urine]. Sampling time: end of shift.
2-Butoxyethanol	<b>ACGIH BEI (United States, 1/2023)</b> BEI: 200 mg/g creatinine, butoxyacetic acid (BAA) [in urine]. Sampling time: end of shift.
Methanol	<b>ACGIH BEI (United States, 1/2023)</b> BEI: 15 mg/l, methanol [in urine]. Sampling time: end of shift.
Ethylbenzene	<b>ACGIH BEI (United States, 1/2023)</b> 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.

### Biological exposure indices (Mexico)

Ingredient name	Exposure indices
2-Propanol	<b>Official Mexican STANDARD NOM-047-SSA1-2011, Environmental Health-Biological exposure indices for personnel occupationally exposed to chemical substances. (Mexico, 6/2012)</b> 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

## Section 8. Exposure controls/personal protection

Toluene

the end of the work week.

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

BEI: 0.05 mg/L, toluene [in blood]. Sampling time: sample time not specified.

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 value; 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.

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 value], o-cresol [in urine]. Sampling time: at the end of the work shift.

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.

Methyl Ethyl Ketone

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

BEI: 2 mg/L, MEK [in urine]. Sampling time: at the end of the work shift.

2-Butoxyethanol

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

BEI: 200 mg/g creatinine, butoxyacetic acid (BAA) [in urine]. Sampling time: exposure sample at the end of the work shift.

methanol

**Official Mexican STANDARD NOM-047-SSA1-2011, Environmental Health-**

## Section 8. Exposure controls/personal protection

### Biological exposure indices for personnel occupationally exposed to chemical substances. (Mexico, 6/2012)

BEI: 15 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 value; non-specific. The determinant is nonspecific, since it can be found after exposure to other chemicals.], methane [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.

### 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	: Yellow.
Odor	: Not available.
Odor threshold	: Not available.
pH	: Not applicable.
Melting point/freezing point	: Not available.
Boiling point, initial boiling point, and boiling range	: 64°C (147.2°F)
Flash point	: Closed cup: -6°C (21.2°F) [Pensky-Martens Closed Cup]
Evaporation rate	: 89 (butyl acetate = 1)
Flammability	: Flammable liquid.
Lower and upper explosion limit/flammability limit	: Lower: 0.9% Upper: 36.5%
Vapor pressure	: 12.3 kPa (92 mm Hg)
Relative vapor density	: 1.11 [Air = 1]
Relative density	: 0.96
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	: 21.224 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: 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	-
2-Propanol	LD50 Dermal	Rabbit	12800 mg/kg	-
	LD50 Oral	Rat	5000 mg/kg	-
Cellulose Nitrate	LD50 Oral	Rat	>5 g/kg	-
Toluene	LC50 Inhalation Vapor	Rat	49 g/m <sup>3</sup>	4 hours
	LD50 Oral	Rat	636 mg/kg	-
Xylene, mixed isomers	LC50 Inhalation Gas.	Rat	6700 ppm	4 hours
	LD50 Oral	Rat	4300 mg/kg	-
Methyl Ethyl Ketone	LD50 Dermal	Rabbit	6480 mg/kg	-
	LD50 Oral	Rat	2737 mg/kg	-
2-Butoxyethanol	LCLo Inhalation Vapor	Guinea pig	>3.1 mg/l	1 hours
	LD50 Dermal	Guinea pig	>2000 mg/kg	-
	LD50 Oral	Rat	1300 mg/kg	-
Methanol	LC50 Inhalation Gas.	Rat	145000 ppm	1 hours
	LC50 Inhalation Gas.	Rat	64000 ppm	4 hours
	LD50 Dermal	Rabbit	15800 mg/kg	-
	LD50 Oral	Rat	5600 mg/kg	-
2-Methyl-1-propanol	LC50 Inhalation Vapor	Rat	19200 mg/m <sup>3</sup>	4 hours
	LD50 Dermal	Rabbit	3400 mg/kg	-
	LD50 Oral	Rat	2460 mg/kg	-
Ethylbenzene	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	-
2-Propanol	Eyes - Moderate irritant	Rabbit	-	10 mg	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 100 mg	-
	Eyes - Severe irritant	Rabbit	-	100 mg	-
Toluene	Skin - Mild irritant	Rabbit	-	500 mg	-
	Eyes - Mild irritant	Rabbit	-	0.5 minutes	-
	Eyes - Mild irritant	Rabbit	-	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	-
Xylene, mixed isomers	Skin - Moderate irritant	Rabbit	-	500 mg	-
	Eyes - Mild irritant	Rabbit	-	87 mg	-
	Eyes - Severe irritant	Rabbit	-	24 hours 5 mg	-

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Methyl Ethyl Ketone	Skin - Mild irritant	Rat	-	8 hours 60 uL	-
	Skin - Moderate irritant	Rabbit	-	100 %	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 mg	-
2-Butoxyethanol	Skin - Mild irritant	Rabbit	-	24 hours 14 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 mg	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 100 mg	-
Methanol	Eyes - Severe irritant	Rabbit	-	100 mg	-
	Skin - Mild irritant	Rabbit	-	500 mg	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 100 mg	-
Titanium Dioxide	Eyes - Moderate irritant	Rabbit	-	40 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 mg	-
	Skin - Mild irritant	Human	-	72 hours 300 ug l	-
Ethylbenzene	Eyes - Severe irritant	Rabbit	-	500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 15 mg	-

### Sensitization

Not available.

### Mutagenicity

Not available.

### Carcinogenicity

Not available.

### Classification

Product/ingredient name	OSHA	IARC	NTP
2-Propanol	-	3	-
Toluene	-	3	-
Xylene, mixed isomers	-	3	-
2-Butoxyethanol	-	3	-
Titanium Dioxide	-	2B	-
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
Lt. Aliphatic Hydrocarbon Solvent	Category 3	-	Respiratory tract irritation
2-Propanol	Category 3	-	Narcotic effects
Toluene	Category 3	-	Narcotic effects
	Category 3	-	Respiratory tract irritation
	Category 3	-	Narcotic effects

## Section 11. Toxicological information

Xylene, mixed isomers	Category 3	-	Respiratory tract irritation
Methyl Ethyl Ketone	Category 3	-	Respiratory tract irritation
Methanol	Category 3	-	Narcotic effects
2-Methyl-1-propanol	Category 1	-	-
	Category 3	-	Narcotic effects
Ethylbenzene	Category 3	-	Respiratory tract irritation
	Category 3	-	Narcotic effects
Med. Aliphatic Hydrocarbon Solvent	Category 3	-	Respiratory tract irritation
	Category 3	-	Narcotic effects

### Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
Lt. Aliphatic Hydrocarbon Solvent	Category 2	-	-
Toluene	Category 2	-	-
Xylene, mixed isomers	Category 2	-	-
Methyl Ethyl Ketone	Category 2	-	-
Methanol	Category 2	-	-
2-Methyl-1-propanol	Category 2	-	-
Ethylbenzene	Category 2	-	-
Med. Aliphatic Hydrocarbon Solvent	Category 1	-	-

### Aspiration hazard

Name	Result
Lt. Aliphatic Hydrocarbon Solvent	ASPIRATION HAZARD - Category 1
Toluene	ASPIRATION HAZARD - Category 1
Xylene, mixed isomers	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** : Causes damage to organs following a single exposure if inhaled. Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.
- Skin contact** : Causes damage to organs following a single exposure in contact with skin. Causes skin irritation. May cause an allergic skin reaction.
- Ingestion** : Harmful if swallowed. Causes damage to organs following a single exposure if swallowed. 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

## Section 11. Toxicological information

- 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. 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** : Suspected of damaging the unborn child.
- Developmental effects** : No known significant effects or critical hazards.
- Fertility effects** : No known significant effects or critical hazards.

### Numerical measures of toxicity

#### Acute toxicity estimates

Route	ATE value
Oral	1966.6 mg/kg
Dermal	5361.58 mg/kg
Inhalation (gases)	79083.65 ppm
Inhalation (vapors)	25.17 mg/l

## Section 11. Toxicological information

## Section 12. Ecological information

### Toxicity

Product/ingredient name	Result	Species	Exposure
Lt. Aliphatic Hydrocarbon Solvent	Acute LC50 >100000 ppm Fresh water	Fish - <i>Oncorhynchus mykiss</i>	96 hours
2-Propanol	Acute EC50 7550 mg/l Fresh water	Daphnia - <i>Daphnia magna</i> - Neonate	48 hours
	Acute LC50 1400000 µg/l Marine water	Crustaceans - <i>Crangon crangon</i>	48 hours
Toluene	Acute LC50 4200 mg/l Fresh water	Fish - <i>Rasbora heteromorpha</i>	96 hours
	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
	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
Xylene, mixed isomers	Chronic NOEC 1 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	21 days
	Acute LC50 8500 µg/l Marine water	Crustaceans - <i>Palaemonetes pugio</i>	48 hours
Methyl Ethyl Ketone	Acute LC50 13400 µg/l Fresh water	Fish - <i>Pimephales promelas</i>	96 hours
	Acute EC50 >500000 µg/l Marine water	Algae - <i>Skeletonema costatum</i>	96 hours
	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
2-Butoxyethanol	Acute EC50 >1000 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 hours
	Acute LC50 800000 µg/l Marine water	Crustaceans - <i>Crangon crangon</i>	48 hours
Methanol	Acute LC50 1250 ppm Marine water	Fish - <i>Menidia beryllina</i>	96 hours
	Acute EC50 16.912 mg/l Marine water	Algae - <i>Ulva pertusa</i>	96 hours
	Acute LC50 2500000 µg/l Marine water	Crustaceans - <i>Crangon crangon</i> - Adult	48 hours
	Acute LC50 3289 mg/l Fresh water	Daphnia - <i>Daphnia magna</i> - Neonate	48 hours
	Acute LC50 290 mg/l Fresh water	Fish - <i>Danio rerio</i> - Egg	96 hours
Titanium Dioxide	Chronic NOEC 9.96 mg/l Marine water	Algae - <i>Ulva pertusa</i>	96 hours
2-Methyl-1-propanol	Acute LC50 >1000000 µg/l Marine water	Fish - <i>Fundulus heteroclitus</i>	96 hours
	Acute LC50 600 mg/l Marine water	Crustaceans - <i>Artemia salina</i>	48 hours
	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
Ethylbenzene	Chronic NOEC 4 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	21 days
	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

## Section 12. Ecological information

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

### Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
Lt. Aliphatic Hydrocarbon Solvent	-	10 to 2500	High
Toluene	-	90	Low
Xylene, mixed isomers	-	8.1 to 25.9	Low
Methanol	-	<10	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 Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	UN1263	UN1263	UN1263	UN1263	UN1263
UN proper shipping name	PAINT	PAINT	PAINT	PAINT	PAINT
Transport hazard class(es)	3 	3 	3 	3 	3 

## Section 14. Transport information

<b>Packing group</b>	II	II	II	II	II
<b>Environmental hazards</b>	No.	No.	No.	No.	No.
<b>Additional information</b>	-  <b>ERG No.</b> 128	Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.18-2.19 (Class 3). <b>ERG No.</b> 128	-  <b>ERG No.</b> 128	-	<b>Emergency schedules</b> 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.

### **International lists**

**: Australia inventory (AII):** 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	*	4
Flammability		3
Physical hazards		0

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
ACUTE TOXICITY (oral) - Category 4	Calculation method
SKIN CORROSION/IRRITATION - Category 2	Calculation method
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A	Calculation method
SKIN SENSITIZATION - Category 1	Calculation method
CARCINOGENICITY - Category 2	Calculation method
TOXIC TO REPRODUCTION - Category 2	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 1	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

**Date of printing** : 1/22/2024

**Date of issue/Date of revision** : 1/22/2024

**Date of previous issue** : 9/13/2023

**Version** : 18

**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)
- N/A = Not available
- SGG = Segregation Group
- UN = United Nations

Indicates information that has changed from previously issued version.

### Notice to reader

<b>Date of issue/Date of revision</b> : 1/22/2024	<b>Date of previous issue</b> : 9/13/2023	<b>Version</b> : 18	23/24
L61Y36	OPEX® Production Lacquer Yellow	SHW-85-NA-GHS-CA	

## Section 16. Other information

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.