

SAFETY DATA SHEET

According to 29 CFR 1910.1200
C135424

Section 1. Identification

Product name : ENVIROVAR™ FF Conversion Varnish Clear Satin
Product code : C135424
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 : M. L. CAMPBELL
101 W. Prospect Avenue
Cleveland, OH 44115

Emergency telephone number of the company : (800) 424-9300

Product Information Telephone Number : (800) 364-1359

Transportation Emergency Telephone Number : (800) 424-9300

Section 2. Hazards identification

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

Classification of the substance or mixture : FLAMMABLE LIQUIDS - Category 2
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
SKIN SENSITIZATION - Category 1
TOXIC TO REPRODUCTION - Category 2
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity: 14.8% (dermal), 9.7% (inhalation)

GHS label elements

Hazard pictograms



Signal word

: Danger

Hazard statements

: Highly flammable liquid and vapor.
May cause an allergic skin reaction.
Causes serious eye damage.
May cause drowsiness or dizziness.
Suspected of damaging fertility or the unborn child.

Precautionary statements

Section 2. Hazards identification

- 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 only outdoors or in a well-ventilated area. Avoid breathing vapor. 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 ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with 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.
- 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. This product must be mixed with other components before use. Before opening the packages, READ AND FOLLOW WARNING LABELS ON ALL COMPONENTS.
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.
- Hazards identified when used** : No known significant effects or critical hazards.

Section 3. Composition/information on ingredients

- Substance/mixture** : Mixture
- Other means of identification** : Not available.
- CAS number/other identifiers**

Ingredient name	% by weight	Identifiers
n-Butyl Acetate	≥25 - ≤50	123-86-4
1-Butanol	≥10 - ≤15	71-36-3
Ethanol	≤10	64-17-5
Ethyl Acetate	≤10	141-78-6
2-Methyl-1-propanol	≤4.8	78-83-1
Cellulose Nitrate	≤3	9004-70-0
2-Propanol	≤3	67-63-0
Methyl n-Amyl Ketone	≤3	110-43-0
1-Methoxy-2-propanol	≤3	107-98-2
Light Aromatic Hydrocarbons	<1	64742-95-6
Heavy Aliphatic Solvent	<1	64742-82-1
glyoxal	≤0.3	107-22-2
Methanol	≤0.3	67-56-1
Xylene, mixed isomers	≤0.3	1330-20-7

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

Section 3. Composition/information on ingredients

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. Do not induce vomiting unless directed to do so by medical personnel. 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** : May cause an allergic skin reaction.
- Ingestion** : Can cause central nervous system (CNS) depression.

Over-exposure signs/symptoms

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

Section 4. First aid measures

- 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
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, CO₂, 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

Section 5. Fire-fighting measures

- 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. Absorb with an inert 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. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. 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.

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 ingest. 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.

Section 7. Handling and storage

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

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store 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
n-Butyl Acetate	123-86-4	ACGIH TLV (United States, 1/2025) [Butyl acetates] STEL 15 minutes: 150 ppm. TWA 8 hours: 50 ppm. NIOSH REL (United States, 10/2020) TWA 10 hours: 150 ppm. TWA 10 hours: 710 mg/m ³ . STEL 15 minutes: 200 ppm. STEL 15 minutes: 950 mg/m ³ . OSHA PEL (United States, 5/2018) TWA 8 hours: 150 ppm. TWA 8 hours: 710 mg/m ³ .
1-Butanol	71-36-3	ACGIH TLV (United States, 1/2025) TWA 8 hours: 20 ppm. NIOSH REL (United States, 10/2020) Absorbed through skin. CEIL: 50 ppm. CEIL: 150 mg/m ³ . OSHA PEL (United States, 5/2018) TWA 8 hours: 100 ppm. TWA 8 hours: 300 mg/m ³ .
Ethanol	64-17-5	ACGIH TLV (United States, 1/2025) A3. STEL 15 minutes: 1000 ppm. NIOSH REL (United States, 10/2020) TWA 10 hours: 1000 ppm. TWA 10 hours: 1900 mg/m ³ . OSHA PEL (United States, 5/2018) TWA 8 hours: 1000 ppm. TWA 8 hours: 1900 mg/m ³ .
Ethyl Acetate	141-78-6	ACGIH TLV (United States, 1/2025) TWA 8 hours: 400 ppm. TWA 8 hours: 1440 mg/m ³ . NIOSH REL (United States, 10/2020) TWA 10 hours: 400 ppm. TWA 10 hours: 1400 mg/m ³ . OSHA PEL (United States, 5/2018)

Section 8. Exposure controls/personal protection

2-Methyl-1-propanol	78-83-1	<p>TWA 8 hours: 400 ppm. TWA 8 hours: 1400 mg/m³.</p> <p>ACGIH TLV (United States, 1/2025) TWA 8 hours: 50 ppm. TWA 8 hours: 152 mg/m³.</p> <p>NIOSH REL (United States, 10/2020) TWA 10 hours: 50 ppm. TWA 10 hours: 150 mg/m³.</p> <p>OSHA PEL (United States, 5/2018) TWA 8 hours: 100 ppm. TWA 8 hours: 300 mg/m³.</p>
Cellulose Nitrate 2-Propanol	9004-70-0 67-63-0	<p>None.</p> <p>ACGIH TLV (United States, 1/2025) A4. TWA 8 hours: 200 ppm. STEL 15 minutes: 400 ppm.</p> <p>NIOSH REL (United States, 10/2020) TWA 10 hours: 400 ppm. TWA 10 hours: 980 mg/m³. STEL 15 minutes: 500 ppm. STEL 15 minutes: 1225 mg/m³.</p> <p>OSHA PEL (United States, 5/2018) TWA 8 hours: 400 ppm. TWA 8 hours: 980 mg/m³.</p>
Methyl n-Amyl Ketone	110-43-0	<p>ACGIH TLV (United States, 1/2025) TWA 8 hours: 50 ppm.</p> <p>NIOSH REL (United States, 10/2020) TWA 10 hours: 100 ppm. TWA 10 hours: 465 mg/m³.</p> <p>OSHA PEL (United States, 5/2018) TWA 8 hours: 100 ppm. TWA 8 hours: 465 mg/m³.</p>
1-Methoxy-2-propanol	107-98-2	<p>ACGIH TLV (United States, 1/2025) A4. TWA 8 hours: 50 ppm. TWA 8 hours: 184 mg/m³. STEL 15 minutes: 100 ppm. STEL 15 minutes: 369 mg/m³.</p> <p>NIOSH REL (United States, 10/2020) TWA 10 hours: 100 ppm. TWA 10 hours: 360 mg/m³. STEL 15 minutes: 150 ppm. STEL 15 minutes: 540 mg/m³.</p>
Light Aromatic Hydrocarbons Heavy Aliphatic Solvent glyoxal	64742-95-6 64742-82-1 107-22-2	<p>None.</p> <p>None.</p> <p>ACGIH TLV (United States, 1/2025) A4. Skin sensitizer. TWA 8 hours: 0.1 mg/m³. Form: Inhalable fraction and vapor.</p> <p>OARS WEEL (United States, 6/2025) Skin sensitizer. TWA 8 hours: 0.1 mg/m³.</p>
Methanol	67-56-1	<p>ACGIH TLV (United States, 1/2025) Absorbed through skin. TWA 8 hours: 200 ppm. TWA 8 hours: 262 mg/m³. STEL 15 minutes: 250 ppm. STEL 15 minutes: 328 mg/m³.</p> <p>NIOSH REL (United States, 10/2020)</p>

Section 8. Exposure controls/personal protection

Xylene, mixed isomers	1330-20-7	<p>Absorbed through skin. TWA 10 hours: 200 ppm. TWA 10 hours: 260 mg/m³. STEL 15 minutes: 250 ppm. STEL 15 minutes: 325 mg/m³.</p> <p>OSHA PEL (United States, 5/2018) TWA 8 hours: 200 ppm. TWA 8 hours: 260 mg/m³.</p> <p>ACGIH TLV (United States, 1/2025) [p-xylene and mixtures containing p-xylene] A4. Ototoxicant. TWA 8 hours: 20 ppm.</p> <p>OSHA PEL (United States, 5/2018) [Xylenes] TWA 8 hours: 100 ppm. TWA 8 hours: 435 mg/m³.</p>
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Occupational exposure limits (Canada)

Ingredient name	CAS #	Exposure limits
n-butyl acetate	123-86-4	<p>CA Saskatchewan Provincial (Canada, 4/2021) STEL 15 minutes: 200 ppm. TWA 8 hours: 150 ppm.</p> <p>CA British Columbia Provincial (Canada, 6/2025) [butyl acetate, all isomers] STEL 15 minutes: 150 ppm. TWA 8 hours: 50 ppm.</p> <p>CA Ontario Provincial (Canada, 6/2019) [butyl acetates, all isomers] STEL 15 minutes: 150 ppm. TWA 8 hours: 50 ppm.</p> <p>CA Quebec Provincial (Canada, 2/2024) [butyl acetates] STEV 15 minutes: 150 ppm. TWAEV 8 hours: 50 ppm.</p> <p>CA Alberta Provincial (Canada, 3/2023) OEL 15 minutes: 200 ppm. OEL 15 minutes: 950 mg/m³. OEL 8 hours: 150 ppm. OEL 8 hours: 713 mg/m³.</p>
Normal butyl alcohol	71-36-3	<p>CA Saskatchewan Provincial (Canada, 4/2021) STEL 15 minutes: 30 ppm. TWA 8 hours: 20 ppm.</p> <p>CA British Columbia Provincial (Canada, 6/2025) TWA 8 hours: 15 ppm. C: 30 ppm.</p> <p>CA Ontario Provincial (Canada, 6/2019) TWA 8 hours: 20 ppm.</p> <p>CA Quebec Provincial (Canada, 2/2024) TWAEV 8 hours: 20 ppm.</p> <p>CA Alberta Provincial (Canada, 3/2023) OEL 8 hours: 60 mg/m³. OEL 8 hours: 20 ppm.</p>
Ethyl alcohol	64-17-5	<p>CA Saskatchewan Provincial (Canada, 4/2021)</p>

Section 8. Exposure controls/personal protection

Isobutyl alcohol	78-83-1	<p>4/2021 STEL 15 minutes: 1250 ppm. TWA 8 hours: 1000 ppm. CA British Columbia Provincial (Canada, 6/2025) STEL 15 minutes: 1000 ppm. CA Ontario Provincial (Canada, 6/2019) STEL 15 minutes: 1000 ppm. CA Quebec Provincial (Canada, 2/2024) C3. STEV 15 minutes: 1000 ppm. CA Alberta Provincial (Canada, 3/2023) OEL 8 hours: 1000 ppm. OEL 8 hours: 1880 mg/m³. CA Saskatchewan Provincial (Canada, 4/2021) STEL 15 minutes: 60 ppm. TWA 8 hours: 50 ppm. CA British Columbia Provincial (Canada, 6/2025) TWA 8 hours: 50 ppm. CA Ontario Provincial (Canada, 6/2019) TWA 8 hours: 50 ppm. CA Quebec Provincial (Canada, 2/2024) TWAEV 8 hours: 50 ppm. TWAEV 8 hours: 152 mg/m³. CA Alberta Provincial (Canada, 3/2023) OEL 8 hours: 50 ppm. OEL 8 hours: 152 mg/m³. CA Saskatchewan Provincial (Canada, 4/2021) STEL 15 minutes: 400 ppm. TWA 8 hours: 200 ppm. CA British Columbia Provincial (Canada, 6/2025) TWA 8 hours: 200 ppm. STEL 15 minutes: 400 ppm. CA Ontario Provincial (Canada, 6/2019) TWA 8 hours: 200 ppm. STEL 15 minutes: 400 ppm. CA Quebec Provincial (Canada, 2/2024) TWAEV 8 hours: 200 ppm. STEV 15 minutes: 400 ppm. CA Alberta Provincial (Canada, 3/2023) OEL 15 minutes: 984 mg/m³. OEL 8 hours: 200 ppm. OEL 15 minutes: 400 ppm. OEL 8 hours: 492 mg/m³. CA Saskatchewan Provincial (Canada, 4/2021) STEL 15 minutes: 60 ppm. TWA 8 hours: 50 ppm. CA British Columbia Provincial (Canada, 6/2025) TWA 8 hours: 50 ppm. CA Ontario Provincial (Canada, 6/2019) TWA 8 hours: 25 ppm.</p>
Isopropyl alcohol	67-63-0	<p>4/2021 STEL 15 minutes: 1250 ppm. TWA 8 hours: 1000 ppm. CA British Columbia Provincial (Canada, 6/2025) STEL 15 minutes: 1000 ppm. CA Ontario Provincial (Canada, 6/2019) STEL 15 minutes: 1000 ppm. CA Quebec Provincial (Canada, 2/2024) C3. STEV 15 minutes: 1000 ppm. CA Alberta Provincial (Canada, 3/2023) OEL 8 hours: 1000 ppm. OEL 8 hours: 1880 mg/m³. CA Saskatchewan Provincial (Canada, 4/2021) STEL 15 minutes: 60 ppm. TWA 8 hours: 50 ppm. CA British Columbia Provincial (Canada, 6/2025) TWA 8 hours: 50 ppm. CA Ontario Provincial (Canada, 6/2019) TWA 8 hours: 50 ppm. CA Quebec Provincial (Canada, 2/2024) TWAEV 8 hours: 50 ppm. TWAEV 8 hours: 152 mg/m³. CA Alberta Provincial (Canada, 3/2023) OEL 8 hours: 50 ppm. OEL 8 hours: 152 mg/m³. CA Saskatchewan Provincial (Canada, 4/2021) STEL 15 minutes: 400 ppm. TWA 8 hours: 200 ppm. CA British Columbia Provincial (Canada, 6/2025) TWA 8 hours: 200 ppm. STEL 15 minutes: 400 ppm. CA Ontario Provincial (Canada, 6/2019) TWA 8 hours: 200 ppm. STEL 15 minutes: 400 ppm. CA Quebec Provincial (Canada, 2/2024) TWAEV 8 hours: 200 ppm. STEV 15 minutes: 400 ppm. CA Alberta Provincial (Canada, 3/2023) OEL 15 minutes: 984 mg/m³. OEL 8 hours: 200 ppm. OEL 15 minutes: 400 ppm. OEL 8 hours: 492 mg/m³. CA Saskatchewan Provincial (Canada, 4/2021) STEL 15 minutes: 60 ppm. TWA 8 hours: 50 ppm. CA British Columbia Provincial (Canada, 6/2025) TWA 8 hours: 50 ppm. CA Ontario Provincial (Canada, 6/2019) TWA 8 hours: 25 ppm.</p>
Methyl n-amyl ketone	110-43-0	<p>4/2021 STEL 15 minutes: 1250 ppm. TWA 8 hours: 1000 ppm. CA British Columbia Provincial (Canada, 6/2025) STEL 15 minutes: 1000 ppm. CA Ontario Provincial (Canada, 6/2019) STEL 15 minutes: 1000 ppm. CA Quebec Provincial (Canada, 2/2024) C3. STEV 15 minutes: 1000 ppm. CA Alberta Provincial (Canada, 3/2023) OEL 8 hours: 1000 ppm. OEL 8 hours: 1880 mg/m³. CA Saskatchewan Provincial (Canada, 4/2021) STEL 15 minutes: 60 ppm. TWA 8 hours: 50 ppm. CA British Columbia Provincial (Canada, 6/2025) TWA 8 hours: 50 ppm. CA Ontario Provincial (Canada, 6/2019) TWA 8 hours: 50 ppm. CA Quebec Provincial (Canada, 2/2024) TWAEV 8 hours: 50 ppm. TWAEV 8 hours: 152 mg/m³. CA Alberta Provincial (Canada, 3/2023) OEL 8 hours: 50 ppm. OEL 8 hours: 152 mg/m³. CA Saskatchewan Provincial (Canada, 4/2021) STEL 15 minutes: 400 ppm. TWA 8 hours: 200 ppm. CA British Columbia Provincial (Canada, 6/2025) TWA 8 hours: 200 ppm. STEL 15 minutes: 400 ppm. CA Ontario Provincial (Canada, 6/2019) TWA 8 hours: 200 ppm. STEL 15 minutes: 400 ppm. CA Quebec Provincial (Canada, 2/2024) TWAEV 8 hours: 200 ppm. STEV 15 minutes: 400 ppm. CA Alberta Provincial (Canada, 3/2023) OEL 15 minutes: 984 mg/m³. OEL 8 hours: 200 ppm. OEL 15 minutes: 400 ppm. OEL 8 hours: 492 mg/m³. CA Saskatchewan Provincial (Canada, 4/2021) STEL 15 minutes: 60 ppm. TWA 8 hours: 50 ppm. CA British Columbia Provincial (Canada, 6/2025) TWA 8 hours: 50 ppm. CA Ontario Provincial (Canada, 6/2019) TWA 8 hours: 25 ppm.</p>

Section 8. Exposure controls/personal protection

Propylene glycol monomethyl ether	107-98-2	<p>TWA 8 hours: 115 mg/m³. CA Quebec Provincial (Canada, 2/2024) TWAEV 8 hours: 50 ppm. TWAEV 8 hours: 233 mg/m³. CA Alberta Provincial (Canada, 3/2023) OEL 8 hours: 233 mg/m³. OEL 8 hours: 50 ppm. CA Saskatchewan Provincial (Canada, 4/2021) STEL 15 minutes: 150 ppm. TWA 8 hours: 100 ppm. CA British Columbia Provincial (Canada, 6/2025) STEL 15 minutes: 100 ppm. TWA 8 hours: 50 ppm. CA Ontario Provincial (Canada, 6/2019) TWA 8 hours: 50 ppm. STEL 15 minutes: 100 ppm. CA Quebec Provincial (Canada, 2/2024) TWAEV 8 hours: 50 ppm. STEV 15 minutes: 100 ppm. CA Alberta Provincial (Canada, 3/2023) OEL 8 hours: 100 ppm. OEL 15 minutes: 553 mg/m³. OEL 8 hours: 369 mg/m³. OEL 15 minutes: 150 ppm.</p>
Glyoxal	107-22-2	<p>CA Saskatchewan Provincial (Canada, 4/2021) Sensitizer. STEL 15 minutes: 0.3 mg/m³. Form: inhalable fraction and vapour. TWA 8 hours: 0.1 mg/m³. Form: inhalable fraction and vapour. CA British Columbia Provincial (Canada, 6/2025) Skin sensitizer. Notes: vapour and inhalable aerosol. TWA 8 hours: 0.1 mg/m³. Form: inhalable vapour and aerosol. CA Ontario Provincial (Canada, 6/2019) TWA 8 hours: 0.1 mg/m³. Form: inhalable fraction and vapour. CA Alberta Provincial (Canada, 3/2023) OEL 8 hours: 0.1 mg/m³.</p>
Methyl alcohol	67-56-1	<p>CA Saskatchewan Provincial (Canada, 4/2021) Absorbed through skin. STEL 15 minutes: 250 ppm. TWA 8 hours: 200 ppm. CA British Columbia Provincial (Canada, 6/2025) Absorbed through skin. TWA 8 hours: 200 ppm. STEL 15 minutes: 250 ppm. CA Ontario Provincial (Canada, 6/2019) Absorbed through skin. TWA 8 hours: 200 ppm. STEL 15 minutes: 250 ppm. CA Quebec Provincial (Canada, 2/2024) Absorbed through skin. TWAEV 8 hours: 200 ppm.</p>

Section 8. Exposure controls/personal protection

Xylene	1330-20-7	<p>TWAEV 8 hours: 262 mg/m³. STEV 15 minutes: 250 ppm. STEV 15 minutes: 328 mg/m³.</p> <p>CA Alberta Provincial (Canada, 3/2023) Absorbed through skin. OEL 8 hours: 262 mg/m³. OEL 8 hours: 200 ppm. OEL 15 minutes: 250 ppm. OEL 15 minutes: 328 mg/m³.</p> <p>CA Saskatchewan Provincial (Canada, 4/2021) [Xylene] STEL 15 minutes: 150 ppm. TWA 8 hours: 100 ppm.</p> <p>CA British Columbia Provincial (Canada, 6/2025) [xylene, all isomers] TWA 8 hours: 20 ppm.</p> <p>CA Ontario Provincial (Canada, 6/2019) [Xylene (o-, m-, p-isomers)] STEL 15 minutes: 150 ppm. TWA 8 hours: 100 ppm.</p> <p>CA Quebec Provincial (Canada, 2/2024) [Xylene] TWAEV 8 hours: 100 ppm. TWAEV 8 hours: 434 mg/m³. STEV 15 minutes: 150 ppm. STEV 15 minutes: 651 mg/m³.</p> <p>CA Alberta Provincial (Canada, 3/2023) [Dimethylbenzene] OEL 8 hours: 100 ppm. OEL 15 minutes: 651 mg/m³. OEL 15 minutes: 150 ppm. OEL 8 hours: 434 mg/m³.</p>
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Occupational exposure limits (Mexico)

Ingredient name	CAS #	Exposure limits
n-Butyl Acetate	123-86-4	NOM-010-STPS-2014 (Mexico, 4/2016) TWA 8 hours: 150 ppm. STEL 15 minutes: 200 ppm.
1-Butanol	71-36-3	NOM-010-STPS-2014 (Mexico, 4/2016) TWA 8 hours: 20 ppm.
Ethanol	64-17-5	NOM-010-STPS-2014 (Mexico, 4/2016) A3. STEL 15 minutes: 1000 ppm.
Ethyl Acetate	141-78-6	NOM-010-STPS-2014 (Mexico, 4/2016) TWA 8 hours: 400 ppm.
2-Methyl-1-propanol	78-83-1	NOM-010-STPS-2014 (Mexico, 4/2016) TWA 8 hours: 50 ppm.
2-Propanol	67-63-0	NOM-010-STPS-2014 (Mexico, 4/2016) A4. TWA 8 hours: 200 ppm. STEL 15 minutes: 400 ppm.
Methyl n-Amyl Ketone	110-43-0	NOM-010-STPS-2014 (Mexico, 4/2016) TWA 8 hours: 50 ppm.
1-Methoxy-2-propanol	107-98-2	NOM-010-STPS-2014 (Mexico, 4/2016) STEL 15 minutes: 150 ppm. TWA 8 hours: 100 ppm.
Methanol	67-56-1	NOM-010-STPS-2014 (Mexico, 4/2016) Absorbed through skin.

Section 8. Exposure controls/personal protection

		TWA 8 hours: 200 ppm. STEL 15 minutes: 250 ppm.
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Biological exposure indices (United States)

Ingredient name	Exposure indices
2-Propanol	ACGIH BEI (United States, 1/2025) BEI: 40 mg/l, acetone [in urine]. Sampling time: end of shift at end of workweek.
Methanol	ACGIH BEI (United States, 1/2025) BEI: 15 mg/l, methanol [in urine]. Sampling time: end of shift.
Xylene, mixed isomers	ACGIH BEI (United States, 1/2025) [xylenes (technical or commercial grades)] BEI: 0.3 g/g creatinine, methylhippuric acids [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	Official Mexican STANDARD NOM-047-SSA1-2011, Environmental Health-Biological exposure indices for personnel occupationally exposed to chemical substances. (Mexico, 6/2012) 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.
Methanol	Official Mexican STANDARD NOM-047-SSA1-2011, Environmental Health-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.

Section 8. Exposure controls/personal protection

- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.
- Individual protection measures**
- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. 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** : Clear.
- Odor** : Not available.
- Odor threshold** : Not available.
- pH** : Not applicable.
- Melting point/freezing point** : Not available.
- Boiling point or initial boiling point and boiling range** : 70°C (158°F)
- Flash point** : Closed cup: 11°C (51.8°F) [Pensky-Martens Closed Cup]
- Evaporation rate** : 3.91 (butyl acetate = 1)
- Flammability** : Flammable liquid.

Section 9. Physical and chemical properties

Lower and upper explosion limit/flammability limit : Lower: 1.1%
Upper: 19%

Vapor pressure : 11.5 kPa (86 mm Hg)

Relative vapor density : 1.5 [Air = 1]

Relative density : 0.94

Density : 0.93 g/cm³

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 : Dynamic (room temperature): Not available.
Kinematic (room temperature): Not available.
Kinematic (40°C (104°F)): >20.5 mm²/s (>20.5 cSt)

Molecular weight : Not applicable.

Particle characteristics

Median particle size : Not applicable.

Heat of combustion : 18.902 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

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
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Section 11. Toxicological information

n-Butyl Acetate	Rat - Oral - LD50 10768 mg/kg <u>Toxic effects:</u> Behavioral - Somnolence (general depressed activity) Lung, Thorax, or Respiration - Other changes Liver - Other changes Rabbit - Dermal - LD50 >17600 mg/kg
1-Butanol	Rat - Oral - LD50 790 mg/kg <u>Toxic effects:</u> Liver - Fatty liver degeneration Kidney, Ureter, and Bladder - Other changes Blood - Other changes Rabbit - Dermal - LD50 3400 mg/kg Rat - Inhalation - LC50 Vapor 24000 mg/m ³ [4 hours]
Ethanol	Rat - Oral - LD50 7 g/kg Rat - Inhalation - LC50 Vapor 124700 mg/m ³ [4 hours]
Ethyl Acetate	Rat - Oral - LD50 5620 mg/kg
2-Methyl-1-propanol	Rat - Oral - LD50 2460 mg/kg Rabbit - Dermal - LD50 3400 mg/kg Rat - Inhalation - LC50 Vapor 19200 mg/m ³ [4 hours]
Cellulose Nitrate	Rat - Oral - LD50 >5 g/kg
2-Propanol	Rabbit - Dermal - LD50 12800 mg/kg Rat - Oral - LD50 5000 mg/kg <u>Toxic effects:</u> Behavioral - General anesthetic
Methyl n-Amyl Ketone	Rat - Oral - LD50 1600 mg/kg <u>Toxic effects:</u> Behavioral - Ataxia Lung, Thorax, or Respiration - Respiratory depression
1-Methoxy-2-propanol	Rabbit - Dermal - LD50 13 g/kg Rat - Oral - LD50 6600 mg/kg <u>Toxic effects:</u> Brain and Coverings - Other degenerative changes Behavioral - General anesthetic Lung, Thorax, or Respiration - Dyspnea
Light Aromatic Hydrocarbons	Rat - Oral - LD50 8400 mg/kg <u>Toxic effects:</u> Behavioral - Somnolence (general depressed activity) Behavioral - Tremor Lung, Thorax, or Respiration - Other changes
glyoxal	Rat - Oral - LD50 200 mg/kg <u>Toxic effects:</u> Behavioral - Muscle weakness
Methanol	Rabbit - Dermal - LD50 15800 mg/kg Rat - Oral - LD50 5600 mg/kg

Section 11. Toxicological information

Xylene, mixed isomers

Rat - Inhalation - LC50 Gas.
 145000 ppm [1 hours]
Rat - Inhalation - LC50 Gas.
 64000 ppm [4 hours]
Rat - Oral - LD50
 4300 mg/kg
Toxic effects: Liver - Other changes Kidney, Ureter, and Bladder - Other changes
Rat - Inhalation - LC50 Gas.
 6700 ppm [4 hours]
Toxic effects: Behavioral - Somnolence (general depressed activity)

Conclusion/Summary [Product] : Not available.

Skin corrosion/irritation

Product/ingredient name

Result

n-Butyl Acetate

Rabbit - Skin - Moderate irritant
Duration of treatment/exposure: 24 hours
Amount/concentration applied: 500 mg

1-Butanol

Rabbit - Skin - Moderate irritant
Duration of treatment/exposure: 24 hours
Amount/concentration applied: 20 mg

Ethanol

Rabbit - Skin - Mild irritant
Amount/concentration applied: 400 mg
Rabbit - Skin - Moderate irritant
Duration of treatment/exposure: 24 hours
Amount/concentration applied: 20 mg

2-Propanol

Rabbit - Skin - Mild irritant
Amount/concentration applied: 500 mg
Rabbit - Skin - Mild irritant
Duration of treatment/exposure: 24 hours
Amount/concentration applied: 14 mg

Methyl n-Amyl Ketone

1-Methoxy-2-propanol

Rabbit - Skin - Mild irritant
Amount/concentration applied: 500 mg
Rabbit - Skin - Mild irritant
Duration of treatment/exposure: 4 hours
Amount/concentration applied: 500 uL

glyoxal

Rabbit - Skin - Mild irritant
Amount/concentration applied: 258 mg
Rabbit - Skin - Moderate irritant
Duration of treatment/exposure: 24 hours
Amount/concentration applied: 20 mg

Methanol

Xylene, mixed isomers

Rat - Skin - Mild irritant
Duration of treatment/exposure: 8 hours
Amount/concentration applied: 60 uL
Rabbit - Skin - Moderate irritant
Duration of treatment/exposure: 24 hours
Amount/concentration applied: 500 mg
Rabbit - Skin - Moderate irritant
Amount/concentration applied: 100 %

Conclusion/Summary [Product] : Not available.

Section 11. Toxicological information

Serious eye damage/eye irritation

Product/ingredient name

Result

n-Butyl Acetate

Rabbit - Eyes - Moderate irritant

Amount/concentration applied: 100 mg

1-Butanol

Rabbit - Eyes - Severe irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 2 mg

Rabbit - Eyes - Severe irritant

Amount/concentration applied: 0.005 MI

Rabbit - Eyes - Severe irritant

Amount/concentration applied: 1.62 mg

Ethanol

Rabbit - Eyes - Mild irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 500 mg

Rabbit - Eyes - Moderate irritant

Duration of treatment/exposure: 0.066666667 minutes

Amount/concentration applied: 100 mg

Rabbit - Eyes - Moderate irritant

Amount/concentration applied: 100 uL

Rabbit - Eyes - Severe irritant

Amount/concentration applied: 500 mg

Rabbit - Eyes - Mild irritant

Duration of treatment/exposure: 1 hours

Amount/concentration applied: 50 pph

2-Propanol

Rabbit - Eyes - Moderate irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 100 mg

Rabbit - Eyes - Moderate irritant

Amount/concentration applied: 10 mg

Rabbit - Eyes - Severe irritant

Amount/concentration applied: 100 mg

Rabbit - Eyes - Mild irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 500 mg

Light Aromatic Hydrocarbons

Rabbit - Eyes - Mild irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 100 uL

Rabbit - Eyes - Mild irritant

Amount/concentration applied: 100 uL

Rabbit - Eyes - Moderate irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 100 uL

Rabbit - Eyes - Severe irritant

Amount/concentration applied: 20 mg

Rabbit - Eyes - Moderate irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 100 mg

Rabbit - Eyes - Moderate irritant

Amount/concentration applied: 40 mg

Rabbit - Eyes - Severe irritant

Amount/concentration applied: 0.1 MI

Rabbit - Eyes - Mild irritant

Amount/concentration applied: 87 mg

Rabbit - Eyes - Severe irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 5 mg

Xylene, mixed isomers

Section 11. Toxicological information

Conclusion/Summary [Product] : Not available.

Respiratory corrosion/irritation

Not available.

Conclusion/Summary [Product] : Not available.

Respiratory or skin sensitization

Not available.

Skin

Conclusion/Summary [Product] : Not available.

Respiratory

Conclusion/Summary [Product] : Not available.

Germ cell mutagenicity

Not available.

Conclusion/Summary [Product] : Not available.

Carcinogenicity

Not available.

Conclusion/Summary [Product] : Not available.

Classification

Product/ingredient name	OSHA	IARC	NTP
Ethanol	-	1	-
2-Propanol	-	3	-
Xylene, mixed isomers	-	3	-

Reproductive toxicity

Not available.

Conclusion/Summary [Product] : Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name

Result

n-Butyl Acetate

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)
(Narcotic effects) - Category 3

1-Butanol

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)
(Respiratory tract irritation) - Category 3

Ethanol

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)
(Narcotic effects) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)

Section 11. Toxicological information

Ethyl Acetate	(Narcotic effects) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)
2-Methyl-1-propanol	(Narcotic effects) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)
2-Propanol	(Narcotic effects) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)
Methyl n-Amyl Ketone	(Narcotic effects) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)
1-Methoxy-2-propanol	(Narcotic effects) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)
Light Aromatic Hydrocarbons	(Narcotic effects) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)
Heavy Aliphatic Solvent	(Narcotic effects) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)
Methanol	(Narcotic effects) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 1 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)
Xylene, mixed isomers	(Narcotic effects) - Category 3 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)

Product/ingredient name

Result

Heavy Aliphatic Solvent

SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (central nervous system (CNS)) - Category 1

Xylene, mixed isomers

SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2

Aspiration hazard

Product/ingredient name

Result

Light Aromatic Hydrocarbons

ASPIRATION HAZARD - Category 1

Heavy Aliphatic Solvent

ASPIRATION HAZARD - Category 1

Xylene, mixed isomers

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

: May cause an allergic skin reaction.

Ingestion

: Can cause central nervous system (CNS) depression.

Symptoms related to the physical, chemical and toxicological characteristics

Section 11. Toxicological information

- 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
 - 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.

Conclusion/Summary [Product] : Not available.

General : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Reproductive toxicity : Suspected of damaging fertility or the unborn child.

Numerical measures of toxicity

Acute toxicity estimates

Section 11. Toxicological information

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
ENVIROVAR™ FF Conversion Varnish Clear	13907.1	19693.6	N/A	713.7	N/A
n-Butyl Acetate	10768	N/A	N/A	N/A	N/A
1-Butanol	2500	3400	N/A	24	N/A
Ethanol	7000	N/A	N/A	124.7	N/A
Ethyl Acetate	5620	N/A	N/A	N/A	N/A
2-Methyl-1-propanol	2460	3400	N/A	N/A	N/A
2-Propanol	5000	12800	N/A	N/A	N/A
Methyl n-Amyl Ketone	1600	N/A	N/A	11	N/A
1-Methoxy-2-propanol	6600	13000	N/A	N/A	N/A
Light Aromatic Hydrocarbons	8400	N/A	N/A	N/A	N/A
glyoxal	2500	N/A	N/A	11	N/A
Methanol	100	300	64000	3	N/A
Xylene, mixed isomers	4300	2500	N/A	N/A	N/A

Section 12. Ecological information

Toxicity

Product/ingredient name

Result

n-Butyl Acetate

Acute - LC50 - Fresh water

Fish - Fathead minnow - *Pimephales promelas*
Age: 31 to 32 days; Size: 21.6 mm; Weight: 0.175 g
 18 mg/l [96 hours]
Effect: Mortality

Acute - LC50 - Marine water

Crustaceans - Brine shrimp - *Artemia salina*
 32 mg/l [48 hours]
Effect: Mortality

1-Butanol

Acute - LC50 - Fresh water

Fish - Fathead minnow - *Pimephales promelas*
Age: 33 days; Size: 20.6 mm; Weight: 0.119 g
 1730 mg/l [96 hours]
Effect: Mortality

Acute - EC50 - Fresh water

Daphnia - Water flea - *Daphnia magna*
Age: 6 to 24 hours
 1983 mg/l [48 hours]
Effect: Intoxication

Ethanol

Acute - LC50 - Fresh water

Fish - Rainbow trout, donaldson trout - *Oncorhynchus mykiss*
 42 mg/l [4 days]
Effect: Mortality

Acute - EC50 - Marine water

Algae - Green algae - *Ulva pertusa*
 17.921 mg/l [96 hours]
Effect: Reproduction

Chronic - NOEC - Marine water

Algae - Green algae - *Ulva pertusa*
 4.995 mg/l [96 hours]
Effect: Reproduction

Chronic - NOEC - Fresh water

Daphnia - Water flea - *Daphnia magna* - Neonate

Date of issue/Date of revision

: 5/21/2026

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Version : 37.01

21/27

C135424

ENVIROVAR™ FF Conversion Varnish Clear
 Satin

SHW-85-NA-GHS-US

Section 12. Ecological information

Age: <24 hours
100 µl/l [21 days]

Effect: Mortality

Chronic - NOEC - Fresh water

Fish - Eastern mosquitofish - *Gambusia holbrooki* - Larvae

Age: 3 days

0.375 µl/l [12 weeks]

Effect: Morphology

Acute - EC50 - Fresh water

Daphnia - Water flea - *Daphnia magna*

2 mg/l [48 hours]

Effect: Intoxication

Acute - LC50 - Fresh water

Daphnia - Water flea - *Daphnia cucullata*

Age: 11 days

154 mg/l [48 hours]

Effect: Mortality

Acute - LC50 - Fresh water

Fish - Indian catfish - *Heteropneustes fossilis*

Size: 14.16 cm; Weight: 25.54 g

212.5 mg/l [96 hours]

Effect: Mortality

Acute - EC50 - Fresh water

Algae - Green algae - *Selenastrum sp.*

2500 mg/l [96 hours]

Effect: Population

Chronic - NOEC - Fresh water

Fish - Fathead minnow - *Pimephales promelas* - Embryo

Age: <24 hours

75.6 mg/l [32 days]

Effect: Mortality

Chronic - NOEC - Fresh water

Daphnia - Water flea - *Daphnia magna*

Age: ≤24 hours

2.4 mg/l [21 days]

Effect: Mortality

Acute - LC50 - Fresh water

Fish - Rainbow trout, donaldson trout - *Oncorhynchus mykiss*

Weight: 1.67 g

1330 mg/l [96 hours]

Effect: Mortality

Acute - LC50 - Marine water

Crustaceans - Brine shrimp - *Artemia salina*

600 mg/l [48 hours]

Effect: Mortality

Chronic - NOEC - Fresh water

Daphnia - Water flea - *Daphnia magna*

Age: ≤24 hours

4 mg/l [21 days]

Effect: Reproduction

Acute - EC50 - Fresh water

Algae - Green algae - *Raphidocelis subcapitata*

579 mg/l [96 hours]

Effect: Biochemistry

Acute - LC50 - Marine water

Crustaceans - Common shrimp, sand shrimp - *Crangon crangon*

1400 mg/l [48 hours]

Ethyl Acetate

2-Methyl-1-propanol

Cellulose Nitrate

2-Propanol

Section 12. Ecological information

Effect: Mortality

Acute - LC50 - Fresh water

Fish - Harlequinfish, red rasbora - *Rasbora heteromorpha*

Size: 1 to 3 cm

4200 mg/l [96 hours]

Effect: Mortality

Methyl n-Amyl Ketone

Acute - LC50 - Fresh water

Fish - Fathead minnow - *Pimephales promelas*

Age: 32 days; Size: 18.4 mm; Weight: 0.095 g

131 mg/l [96 hours]

Effect: Mortality

glyoxal

Acute - LC50 - Fresh water

Fish - Fathead minnow - *Pimephales promelas*

215 mg/l [96 hours]

Effect: Mortality

Acute - EC50 - Fresh water

Algae - Green algae - *Raphidocelis subcapitata*

Age: 3 to 7 days

66.48 mg/l [96 hours]

Effect: Population

Methanol

Acute - LC50 - Marine water

Crustaceans - Common shrimp, sand shrimp - *Crangon crangon* - Adult

2500 mg/l [48 hours]

Effect: Mortality

Acute - EC50 - Marine water

Algae - Green algae - *Ulva pertusa*

16.912 mg/l [96 hours]

Effect: Reproduction

Chronic - NOEC - Marine water

Algae - Green algae - *Ulva pertusa*

9.96 mg/l [96 hours]

Effect: Reproduction

Acute - LC50 - Fresh water

Fish - Zebra danio - *Danio rerio* - Egg

Age: 12

290 mg/l [96 hours]

Effect: Mortality

Xylene, mixed isomers

Acute - LC50 - Marine water

Crustaceans - Daggerblade grass shrimp - *Palaemon pugio*

8500 µg/l [48 hours]

Effect: Mortality

Acute - LC50 - Fresh water

Fish - Fathead minnow - *Pimephales promelas*

Age: 31 days; Size: 18.4 mm; Weight: 0.077 g

13.4 mg/l [96 hours]

Effect: Mortality

Conclusion/Summary [Product] : Not available.

Persistence and degradability

Not available.

Conclusion/Summary [Product] : Not available.

Section 12. Ecological information

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
n-Butyl Acetate	-	-	Readily
1-Butanol	-	-	Readily
Ethanol	-	-	Readily
Ethyl Acetate	-	-	Readily
2-Methyl-1-propanol	-	-	Readily
2-Propanol	-	-	Readily
Methyl n-Amyl Ketone	-	-	Readily
Light Aromatic Hydrocarbons	-	-	Readily
Xylene, mixed isomers	-	-	Readily

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Ethyl Acetate	-	30	Low
Light Aromatic Hydrocarbons	-	10 to 2500	High
Heavy Aliphatic Solvent	-	10 to 2500	High
glyoxal	-	3.2	Low
Methanol	-	<10	Low
Xylene, mixed isomers	-	8.1 to 25.9	Low

Mobility in soil

Soil/Water partition coefficient : 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

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

U.S. Federal regulations :
[SARA 313](#)

Section 15. Regulatory information

All data given below are MAXIMUM THEORETICAL VALUES based on the product AS CURRENTLY FORMULATED and rely on information provided to us by our raw material suppliers. Our suppliers often provide an estimated value or range less than a certain upper limit. We calculate MAXIMUM THEORETICAL VALUES using defined values, if provided, or the upper limit reported by our supplier. Additionally, the suppliers' information may include amounts present in the product as unintentional byproducts or impurities. Variations may occur in individual batches due to adjustments made during production. Reporting of chemicals in this section does not necessarily indicate their presence in the final formulated product.

Ingredient name	% by weight	CAS number
Mercury (as Hg)	0.0000003	
1-Butanol	11	71-36-3
Polycyclic Aromatic Compounds	0.0004	
Lead (as Pb)	0.0000003	

California Prop. 65

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

International regulations

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

International lists

: **Australia inventory (AIIIC):** 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		4

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

Date of issue/Date of revision	: 5/21/2026	Date of previous issue	: 5/7/2026	Version	: 37.01	26/27
C135424	ENVIROVAR™ FF Conversion Varnish Clear Satin			SHW-85-NA-GHS-US		

Section 16. Other information

Classification	Justification
FLAMMABLE LIQUIDS - Category 2 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1 SKIN SENSITIZATION - Category 1 TOXIC TO REPRODUCTION - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3	On basis of test data Calculation method Calculation method Calculation method Calculation method

History

Date of printing : 5/21/2026

Date of issue/Date of revision : 5/21/2026

Date of previous issue : 5/7/2026

Version : 37.01

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

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.