SAFETY DATA SHEET

C135429

Section 1. Identification

Product name : ENVIROVAR™ FF Sealer

Product code : C135429

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: 17.5% (dermal), 10.5% (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, eye protection, face protection, or hearing 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 should 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.

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
Ethanol	≤10	64-17-5
1-Butanol	≤10	71-36-3
Ethyl Acetate	≤10	141-78-6
Methyl Ethyl Ketone	≤5	78-93-3
2-Methyl-1-propanol	≤4.8	78-83-1
Cellulose Nitrate	≤3	9004-70-0
Fumed Amorphous Silica	≤3	112945-52-5
1-Methoxy-2-propanol	≤3	107-98-2
2-Propanol	≤3	67-63-0
Light Aromatic Hydrocarbons	<1	64742-95-6
Xylene, mixed isomers	≤0.3	1330-20-7
Heavy Aliphatic Solvent	≤0.3	64742-82-1
1,2,4-Trimethylbenzene	≤0.3	95-63-6
glyoxal	≤0.3	107-22-2
Methanol	≤0.3	67-56-1

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, CO_2, 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

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, 1/2024) [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/m³. STEL 15 minutes: 200 ppm. STEL 15 minutes: 950 mg/m³. **OSHA PEL (United States, 5/2018)** TWA 8 hours: 150 ppm. TWA 8 hours: 710 mg/m³.
Ethanol	64-17-5	**ACGIH TLV (United States, 1/2024)** A3. STEL 15 minutes: 1000 ppm. **NIOSH REL (United States, 10/2020)** TWA 10 hours: 1000 ppm. TWA 10 hours: 1900 mg/m³. **OSHA PEL (United States, 5/2018)** TWA 8 hours: 1000 ppm. TWA 8 hours: 1900 mg/m³.
1-Butanol	71-36-3	**ACGIH TLV (United States, 1/2024)** TWA 8 hours: 20 ppm. **NIOSH REL (United States, 10/2020)** Absorbed through skin. CEIL: 50 ppm. CEIL: 150 mg/m³. **OSHA PEL (United States, 5/2018)** TWA 8 hours: 100 ppm. TWA 8 hours: 300 mg/m³.
Ethyl Acetate	141-78-6	**ACGIH TLV (United States, 1/2024)** TWA 8 hours: 400 ppm. TWA 8 hours: 1440 mg/m³. **NIOSH REL (United States, 10/2020)** TWA 10 hours: 400 ppm. TWA 10 hours: 1400 mg/m³. **OSHA PEL (United States, 5/2018)**

		TWA 8 hours: 400 ppm. TWA 8 hours: 1400 mg/m³.
Methyl Ethyl Ketone	78-93-3	**ACGIH TLV (United States, 1/2024)** Absorbed through skin. TWA 8 hours: 75 ppm. STEL 15 minutes: 150 ppm. **NIOSH REL (United States, 10/2020)** TWA 10 hours: 200 ppm. TWA 10 hours: 590 mg/m³. STEL 15 minutes: 300 ppm. STEL 15 minutes: 885 mg/m³. **OSHA PEL (United States, 5/2018)** TWA 8 hours: 200 ppm. TWA 8 hours: 590 mg/m³.
2-Methyl-1-propanol	78-83-1	**ACGIH TLV (United States, 1/2024)** TWA 8 hours: 50 ppm. TWA 8 hours: 152 mg/m³. **NIOSH REL (United States, 10/2020)** TWA 10 hours: 50 ppm. TWA 10 hours: 150 mg/m³. **OSHA PEL (United States, 5/2018)** TWA 8 hours: 100 ppm. TWA 8 hours: 300 mg/m³.
Cellulose Nitrate	9004-70-0	None.
Fumed Amorphous Silica	112945-52-5	**NIOSH REL (United States, 10/2020) [SILICA, AMORPHOUS]** NIA. TWA 10 hours: 6 mg/m³.
1-Methoxy-2-propanol	107-98-2	**ACGIH TLV (United States, 1/2024)** A4. TWA 8 hours: 50 ppm. TWA 8 hours: 184 mg/m³. STEL 15 minutes: 100 ppm. STEL 15 minutes: 369 mg/m³. **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.
2-Propanol	67-63-0	**ACGIH TLV (United States, 1/2024)** A4. TWA 8 hours: 200 ppm. STEL 15 minutes: 400 ppm. **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. **OSHA PEL (United States, 5/2018)** TWA 8 hours: 400 ppm. TWA 8 hours: 980 mg/m³.
Light Aromatic Hydrocarbons	64742-95-6	None.
Xylene, mixed isomers	1330-20-7	**ACGIH TLV (United States, 1/2024) [p-xylene and mixtures containing p-xylene]** A4. Ototoxicant. TWA 8 hours: 20 ppm. **OSHA PEL (United States, 5/2018) [Xylenes]** TWA 8 hours: 100 ppm. TWA 8 hours: 435 mg/m³.

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Heavy Aliphatic Solvent	64742-82-1	None.
1,2,4-Trimethylbenzene	95-63-6	**ACGIH TLV (United States, 1/2024)** A4. TWA 8 hours: 10 ppm. **NIOSH REL (United States, 10/2020)** TWA 10 hours: 25 ppm. TWA 10 hours: 125 mg/m³.
glyoxal	107-22-2	**ACGIH TLV (United States, 1/2024)** A4. Skin sensitizer. TWA 8 hours: 0.1 mg/m³. Form: Inhalable fraction and vapor. **OARS WEEL (United States, 6/2024)** Skin sensitizer. TWA 8 hours: 0.1 mg/m³.
Methanol	67-56-1	**ACGIH TLV (United States, 1/2024)** 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. **NIOSH REL (United States, 10/2020)** 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. **OSHA PEL (United States, 5/2018)** TWA 8 hours: 200 ppm. TWA 8 hours: 260 mg/m³.

Occupational exposure limits (Canada)

Ingredient name	CAS #	Exposure limits
n-butyl acetate	123-86-4	**CA Saskatchewan Provincial (Canada, 4/2021)** STEL 15 minutes: 200 ppm. TWA 8 hours: 150 ppm. **CA British Columbia Provincial (Canada, 4/2024) [butyl acetate, all isomers]** STEL 15 minutes: 150 ppm. TWA 8 hours: 50 ppm. **CA Ontario Provincial (Canada, 6/2019) [butyl acetates, all isomers]** STEL 15 minutes: 150 ppm. TWA 8 hours: 50 ppm. **CA Quebec Provincial (Canada, 2/2024) [butyl acetates]** STEV 15 minutes: 150 ppm. TWAEV 8 hours: 50 ppm. **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.
Ethyl alcohol	64-17-5	**CA Saskatchewan Provincial (Canada, 4/2021)** STEL 15 minutes: 1250 ppm. TWA 8 hours: 1000 ppm.

		CA British Columbia Provincial (Canada, 4/2024) 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.
Normal butyl alcohol	71-36-3	**CA Saskatchewan Provincial (Canada, 4/2021)** STEL 15 minutes: 30 ppm. TWA 8 hours: 20 ppm. **CA British Columbia Provincial (Canada, 4/2024)** TWA 8 hours: 15 ppm. C: 30 ppm. **CA Ontario Provincial (Canada, 6/2019)** TWA 8 hours: 20 ppm. **CA Quebec Provincial (Canada, 2/2024)** TWAEV 8 hours: 20 ppm. **CA Alberta Provincial (Canada, 3/2023)** OEL 8 hours: 60 mg/m³. OEL 8 hours: 20 ppm.
Methyl ethyl ketone	78-93-3	**CA Saskatchewan Provincial (Canada, 4/2021)** STEL 15 minutes: 300 ppm. TWA 8 hours: 200 ppm. **CA British Columbia Provincial (Canada, 4/2024)** Repr. Absorbed through skin. TWA 8 hours: 50 ppm. STEL 15 minutes: 100 ppm. **CA Ontario Provincial (Canada, 6/2019)** TWA 8 hours: 200 ppm. STEL 15 minutes: 300 ppm. **CA Quebec Provincial (Canada, 2/2024)** TWAEV 8 hours: 50 ppm. TWAEV 8 hours: 150 mg/m³. STEV 15 minutes: 100 ppm. STEV 15 minutes: 300 mg/m³. **CA Alberta Provincial (Canada, 3/2023)** OEL 15 minutes: 300 ppm. OEL 8 hours: 200 ppm. OEL 8 hours: 590 mg/m³. OEL 15 minutes: 885 mg/m³.
Isobutyl alcohol	78-83-1	**CA Saskatchewan Provincial (Canada, 4/2021)** STEL 15 minutes: 60 ppm. TWA 8 hours: 50 ppm. **CA British Columbia Provincial (Canada, 4/2024)** TWA 8 hours: 50 ppm. **CA Ontario Provincial (Canada, 6/2019)** TWA 8 hours: 50 ppm. **CA Quebec Provincial (Canada, 2/2024)**

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		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.
Propylene glycol monomethyl ether	107-98-2	**CA Saskatchewan Provincial (Canada, 4/2021)** STEL 15 minutes: 150 ppm. TWA 8 hours: 100 ppm. **CA British Columbia Provincial (Canada, 4/2024)** 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.
Isopropyl alcohol	67-63-0	**CA Saskatchewan Provincial (Canada, 4/2021)** STEL 15 minutes: 400 ppm. TWA 8 hours: 200 ppm. **CA British Columbia Provincial (Canada, 4/2024)** 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.
Xylene	1330-20-7	**CA Saskatchewan Provincial (Canada, 4/2021) [Xylene]** STEL 15 minutes: 150 ppm. TWA 8 hours: 100 ppm. **CA British Columbia Provincial (Canada, 4/2024) [xylene (o, m & p isomers)]** TWA 8 hours: 100 ppm. STEL 15 minutes: 150 ppm. **CA Ontario Provincial (Canada, 6/2019) [Xylene (o-, m-, p-isomers)]** STEL 15 minutes: 150 ppm. TWA 8 hours: 100 ppm. **CA Quebec Provincial (Canada, 2/2024) [Xylene]**

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		TWAEV 8 hours: 100 ppm. TWAEV 8 hours: 434 mg/m³. STEV 15 minutes: 150 ppm. STEV 15 minutes: 651 mg/m³. **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.
Glyoxal	107-22-2	**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, 4/2024)** 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.
Methyl alcohol	67-56-1	**CA Saskatchewan Provincial (Canada, 4/2021)** Absorbed through skin. STEL 15 minutes: 250 ppm. TWA 8 hours: 200 ppm. **CA British Columbia Provincial (Canada, 4/2024)** 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. TWAEV 8 hours: 262 mg/m³. STEV 15 minutes: 250 ppm. STEV 15 minutes: 328 mg/m³. **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.

Occupational exposure limits (Mexico)

Section 8. Exposure controls/personal protection

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.
Ethanol	64-17-5	**NOM-010-STPS-2014 (Mexico, 4/2016)** A3. STEL 15 minutes: 1000 ppm.
1-Butanol	71-36-3	**NOM-010-STPS-2014 (Mexico, 4/2016)** TWA 8 hours: 20 ppm.
Ethyl Acetate	141-78-6	**NOM-010-STPS-2014 (Mexico, 4/2016)** TWA 8 hours: 400 ppm.
Methyl Ethyl Ketone	78-93-3	**NOM-010-STPS-2014 (Mexico, 4/2016)** TWA 8 hours: 200 ppm. STEL 15 minutes: 300 ppm.
2-Methyl-1-propanol	78-83-1	**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.
2-Propanol	67-63-0	**NOM-010-STPS-2014 (Mexico, 4/2016)** A4. TWA 8 hours: 200 ppm. STEL 15 minutes: 400 ppm.
Methanol	67-56-1	**NOM-010-STPS-2014 (Mexico, 4/2016)** Absorbed through skin. TWA 8 hours: 200 ppm. STEL 15 minutes: 250 ppm.

Biological exposure indices (United States)

Ingredient name	Exposure indices
Methyl Ethyl Ketone	**ACGIH BEI (United States, 1/2024)** BEI: 2 mg/l, methyl ethyl ketone [in urine]. Sampling time: end of shift.
2-Propanol	**ACGIH BEI (United States, 1/2024)** BEI: 40 mg/l, acetone [in urine]. Sampling time: end of shift at end of workweek.
Xylene, mixed isomers	**ACGIH BEI (United States, 1/2024) [xylenes (technical or commercial grades)]** BEI: 0.3 g/g creatinine, methylhippuric acids [in urine]. Sampling time: end of shift.
Methanol	**ACGIH BEI (United States, 1/2024)** BEI: 15 mg/l, methanol [in urine]. Sampling time: end of shift.

Biological exposure indices (Canada)

No exposure indices known.

Biological exposure indices (Mexico)

Section 8. Exposure controls/personal protection

Ingredient name	Exposure indices
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-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 valu; 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.

Section 8. Exposure controls/personal protection

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: 10°C (50°F) [Pensky-Martens Closed Cup]

Evaporation rate : 5.6 (butyl acetate = 1)

Flammability : Flammable liquid.

Lower and upper explosion limit/flammability limit : Lower: 1.2%
Upper: 19%

Vapor pressure : 12.1 kPa (90.6 mm Hg)

Relative vapor density : 1.5 [Air = 1]

Relative density : 0.94

Density : 0.93 g/cm³

Solubility(ies) :

Section 9. Physical and chemical properties

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 mm^2/s (>20.5 cSt)

Molecular weight : Not applicable.

Particle characteristics

Median particle size : Not applicable.

Heat of combustion : 18.332 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
n-Butyl Acetate	**Rat - Oral - LD50** 10768 mg/kg Toxic effects: Behavioral - Somnolence (general depressed activity) Lung, Thorax, or Respiration - Other changes Liver - Other changes **Rabbit - Dermal - LD50** >17600 mg/kg
Ethanol	**Rat - Oral - LD50** 7 g/kg **Rat - Inhalation - LC50 Vapor** 124700 mg/m^3 [4 hours]
1-Butanol	**Rat - Oral - LD50** 790 mg/kg

Section 11. Toxicological information

	Toxic effects: 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/m³ [4 hours]
Ethyl Acetate	**Rat - Oral - LD50** 5620 mg/kg
Methyl Ethyl Ketone	**Rabbit - Dermal - LD50** 6480 mg/kg **Rat - Oral - LD50** 2737 mg/kg
2-Methyl-1-propanol	**Rat - Oral - LD50** 2460 mg/kg **Rabbit - Dermal - LD50** 3400 mg/kg **Rat - Inhalation - LC50 Vapor** 19200 mg/m³ [4 hours]
Cellulose Nitrate	**Rat - Oral - LD50** >5 g/kg
Fumed Amorphous Silica	**Rat - Oral - LD50** 3160 mg/kg
1-Methoxy-2-propanol	**Rabbit - Dermal - LD50** 13 g/kg **Rat - Oral - LD50** 6600 mg/kg Toxic effects: Brain and Coverings - Other degenerative changes Behavioral - General anesthetic Lung, Thorax, or Respiration - Dyspnea
2-Propanol	**Rabbit - Dermal - LD50** 12800 mg/kg **Rat - Oral - LD50** 5000 mg/kg Toxic effects: Behavioral - General anesthetic
Light Aromatic Hydrocarbons	**Rat - Oral - LD50** 8400 mg/kg Toxic effects: Behavioral - Somnolence (general depressed activity) Behavioral - Tremor Lung, Thorax, or Respiration - Other changes
Xylene, mixed isomers	**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)
1,2,4-Trimethylbenzene	**Rat - Oral - LD50** 5 g/kg **Rat - Inhalation - LC50 Vapor** 18000 mg/m³ [4 hours]
glyoxal	**Rat - Oral - LD50** 200 mg/kg Toxic effects: Behavioral - Muscle weakness
Methanol	**Rabbit - Dermal - LD50** 15800 mg/kg **Rat - Oral - LD50**

5600 mg/kg
Rat - Inhalation - LC50 Gas.
145000 ppm [1 hours]
Rat - Inhalation - LC50 Gas.
64000 ppm [4 hours]

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
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
1-Butanol	**Rabbit - Skin - Moderate irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 20 mg
Methyl Ethyl Ketone	**Rabbit - Skin - Mild irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 14 mg **Rabbit - Skin - Mild irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 402 mg **Rabbit - Skin - Moderate irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 500 mg
1-Methoxy-2-propanol	**Rabbit - Skin - Mild irritant** Amount/concentration applied: 500 mg
2-Propanol	**Rabbit - Skin - Mild irritant** Amount/concentration applied: 500 mg
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 %
glyoxal	**Rabbit - Skin - Mild irritant** Duration of treatment/exposure: 4 hours Amount/concentration applied: 500 uL **Rabbit - Skin - Mild irritant** Amount/concentration applied: 258 mg
Methanol	**Rabbit - Skin - Moderate irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 20 mg

Conclusion/Summary [Product] : Not available.

Serious eye damage/eye irritation

Section 11. Toxicological information

Product/ingredient name	Result
n-Butyl Acetate	**Rabbit - Eyes - Moderate irritant** Amount/concentration applied: 100 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
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 Ml **Rabbit - Eyes - Severe irritant** Amount/concentration applied: 1.62 mg
1-Methoxy-2-propanol	**Rabbit - Eyes - Mild irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 500 mg
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
Light Aromatic Hydrocarbons	**Rabbit - Eyes - Mild irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 100 uL
Xylene, mixed isomers	**Rabbit - Eyes - Mild irritant** Amount/concentration applied: 87 mg **Rabbit - Eyes - Severe irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 5 mg
glyoxal	**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
Methanol	**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 Ml

Conclusion/Summary [Product] : Not available.

Section 11. Toxicological information

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	-
Fumed Amorphous Silica	-	3	-
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
Ethanol	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
1-Butanol	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
Ethyl Acetate	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3

Section 11. Toxicological information

Methyl Ethyl Ketone	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
2-Methyl-1-propanol	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
1-Methoxy-2-propanol	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
2-Propanol	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
Light Aromatic Hydrocarbons	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
Xylene, mixed isomers	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
Heavy Aliphatic Solvent	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
1,2,4-Trimethylbenzene	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
Methanol	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 1
	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Result
Xylene, mixed isomers	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
Heavy Aliphatic Solvent	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (central nervous system (CNS)) - Category 1

Aspiration hazard

Product/ingredient name	Result
Light Aromatic Hydrocarbons	ASPIRATION HAZARD - Category 1
Xylene, mixed isomers	ASPIRATION HAZARD - Category 1
Heavy Aliphatic Solvent	ASPIRATION HAZARD - Category 1
1,2,4-Trimethylbenzene	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 Sealer	15795.7	23874.4	N/A	N/A	N/A
n-Butyl Acetate	10768	N/A	N/A	N/A	N/A
Ethanol	7000	N/A	N/A	124.7	N/A
1-Butanol	2500	3400	N/A	24	N/A
Ethyl Acetate	5620	N/A	N/A	N/A	N/A
Methyl Ethyl Ketone	2737	6480	N/A	N/A	N/A
2-Methyl-1-propanol	2460	3400	N/A	N/A	N/A
Fumed Amorphous Silica	3160	N/A	N/A	N/A	N/A
1-Methoxy-2-propanol	6600	13000	N/A	N/A	N/A
2-Propanol	5000	12800	N/A	N/A	N/A
Light Aromatic Hydrocarbons	8400	N/A	N/A	N/A	N/A
Xylene, mixed isomers	4300	2500	N/A	N/A	N/A
1,2,4-Trimethylbenzene	5000	N/A	N/A	18	N/A
glyoxal	2500	N/A	N/A	11	N/A
Methanol	100	300	64000	3	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
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 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

Section 12. Ecological information

	Acute - EC50 - Fresh water Daphnia - Water flea - *Daphnia magna* 2 mg/l [48 hours] Effect: Intoxication
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
Ethyl Acetate	**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
Methyl Ethyl Ketone	**Acute - EC50 - Fresh water** Daphnia - Water flea - *Daphnia magna* - Larvae Age: <24 hours 5091 mg/l [48 hours] Effect: Intoxication
	Acute - LC50 - Fresh water Fish - Fathead minnow - *Pimephales promelas* Age: 31 days; Size: 22 mm; Weight: 0.167 g 3220 mg/l [96 hours] Effect: Mortality
	Acute - EC50 - Marine water Algae - Diatom - *Skeletonema costatum* >500 mg/l [96 hours] Effect: Population
2-Methyl-1-propanol	**Acute - LC50 - Fresh water** Fish - Rainbow trout,donaldson trout - *Oncorhynchus mykiss* Weight: 1.67 g 1330 mg/l [96 hours] Effect: Mortality

Section 12. Ecological information

	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
Cellulose Nitrate	**Acute - EC50 - Fresh water** Algae - Green algae - *Raphidocelis subcapitata* 579 mg/l [96 hours] Effect: Biochemistry
2-Propanol	**Acute - LC50 - Marine water** Crustaceans - Common shrimp, sand shrimp - *Crangon crangon* 1400 mg/l [48 hours] Effect: Mortality **Acute - LC50 - Fresh water** Fish - Harlequinfish, red rasbora - *Rasbora heteromorpha* Size: 1 to 3 cm 4200 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
1,2,4-Trimethylbenzene	**Acute - LC50 - Marine water** Crustaceans - Scud - *Elasmopus pectenicrus* - Adult 4910 µg/l [48 hours] Effect: Mortality **Acute - LC50 - Fresh water** Fish - Fathead minnow - *Pimephales promelas* Age: 34 days 7720 µg/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]

Section 12. Ecological information

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

Conclusion/Summary [Product] : Not available.

Persistence and degradability

Not available.

Conclusion/Summary [Product] : Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
n-Butyl Acetate	-	-	Readily
Ethanol	-	-	Readily
1-Butanol	-	-	Readily
Ethyl Acetate	-	-	Readily
Methyl Ethyl Ketone	-	-	Readily
2-Methyl-1-propanol	-	-	Readily
2-Propanol	-	-	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
Xylene, mixed isomers	-	8.1 to 25.9	Low
Heavy Aliphatic Solvent	-	10 to 2500	High
1,2,4-Trimethylbenzene	-	243	Low
glyoxal	-	3.2	Low
Methanol	-	<10	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

	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

Section 14. Transport information

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 :

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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	8	71-36-3
Polycyclic Aromatic Compounds	0.0003	
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.

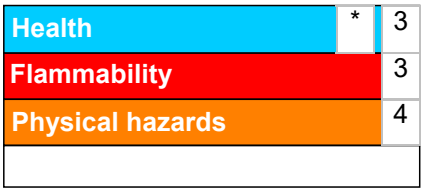
Stockholm Convention on Persistent Organic Pollutants

Not listed.

International lists : **Australia inventory (AIIC)**: 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.)



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 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

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

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