

SAFETY DATA SHEET

DM5610003

Section 1. Identification

Product name : Bernyl™ FF Conversion Varnish
35 Gloss

Product code : DM5610003

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 : AcromaPro Wood Finishes
101 W. Prospect Avenue
Cleveland, OH 44115

National contact : AcromaPro Wood Finishes
140 Garden Ave.
Brantford, ON N3S 7W4

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

Product Information Telephone Number : US / Canada: 1-888-277-1448
Mexico: Not Available

Transportation Emergency Telephone Number : US / Canada: (800) 424-9300
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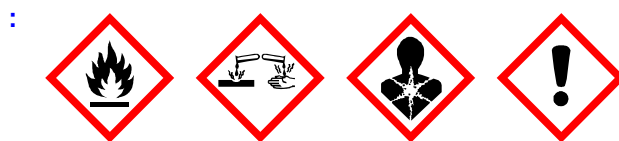
Section 2. Hazards identification

Classification of the substance or mixture : FLAMMABLE LIQUIDS - Category 2
SKIN CORROSION/IRRITATION - Category 2
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
SKIN SENSITIZATION - Category 1
CARCINOGENICITY - Category 2
TOXIC TO REPRODUCTION - Category 1B
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 1
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
ASPIRATION HAZARD - Category 1

Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity: 19.6% (dermal), 8.1% (inhalation)

GHS label elements

Hazard pictograms



Signal word : Danger

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Section 2. Hazards identification

- Hazard statements**
- : Highly flammable liquid and vapor.
 - May be fatal if swallowed and enters airways.
 - Causes skin irritation.
 - May cause an allergic skin reaction.
 - Causes serious eye damage.
 - May cause drowsiness or dizziness.
 - Suspected of causing cancer.
 - May damage fertility or the unborn child.
 - Causes damage to organs.
 - May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

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

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

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

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

Supplemental label elements

DELAYED EFFECTS FROM LONG TERM OVEREXPOSURE. Contains solvents which can cause permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. FOR INDUSTRIAL USE ONLY. This product must be mixed with other components before use. Before opening the packages, READ AND FOLLOW WARNING LABELS ON ALL COMPONENTS.

This product contains a component that is either subject to a CEPA ministerial condition or an existing/proposed SNAC (Significant New Activity).

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

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

Section 3. Composition/information on ingredients

Substance/mixture : Mixture
Other means of identification : Not available.

CAS number/other identifiers

Ingredient name	% by weight	CAS number
n-Butyl Acetate	17.22	123-86-4
2-methoxy-1-methylethyl acetate	6.89	108-65-6
Toluene	6.58	108-88-3
Ethyl Acetate	6.35	141-78-6
1-Butanol	5.4	71-36-3
Ethanol	4.94	64-17-5
Xylene, mixed isomers	4.33	1330-20-7
2-Methyl-1-propanol	4.16	78-83-1
Methanol	3.28	67-56-1
Cellulose Nitrate	1.73	9004-70-0
Amorphous Silica	1.31	7631-86-9
Ethylbenzene	0.81	100-41-4
Light Aromatic Hydrocarbons	0.47	64742-95-6
trimethylbenzene	0.22	25551-13-7
glyoxal	0.15	107-22-2

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

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

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

Section 4. First aid measures

Description of necessary first aid measures

- Eye contact** : Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.
- Inhalation** : Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Skin contact** : Get medical attention immediately. Call a poison center or physician. Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Section 4. First aid measures

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

Most important symptoms/effects, acute and delayed

Potential acute health effects

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

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain
watering
redness
- Inhalation** : Adverse symptoms may include the following:
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
reduced fetal weight
increase in fetal deaths
skeletal malformations
- Skin contact** : Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur
reduced fetal weight
increase in fetal deaths
skeletal malformations
- Ingestion** : Adverse symptoms may include the following:
stomach pains
nausea or vomiting
reduced fetal weight
increase in fetal deaths
skeletal malformations

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

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.

Section 4. First aid measures

- 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
metal oxide/oxides

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

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

- Remark** : Flammable liquid.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

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

- Environmental precautions** : **This product contains a component that is either subject to a CEPA ministerial condition or an existing/proposed SNAC (Significant New Activity).**

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).

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Section 6. Accidental release measures

Methods and materials for containment and cleaning up

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

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not swallow. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

- Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

Section 8. Exposure controls/personal protection

Ingredient name	CAS #	Exposure limits
n-Butyl Acetate	123-86-4	NIOSH REL (United States, 10/2020). TWA: 150 ppm 10 hours. TWA: 710 mg/m ³ 10 hours. STEL: 200 ppm 15 minutes. STEL: 950 mg/m ³ 15 minutes. OSHA PEL (United States, 5/2018). TWA: 150 ppm 8 hours. TWA: 710 mg/m ³ 8 hours. ACGIH TLV (United States, 1/2024). [Butyl acetates] STEL: 150 ppm 15 minutes. TWA: 50 ppm 8 hours.
2-methoxy-1-methylethyl acetate	108-65-6	OARS WEEL (United States, 4/2022). TWA: 50 ppm 8 hours.
Toluene	108-88-3	OSHA PEL Z2 (United States, 2/2013). TWA: 200 ppm 8 hours. CEIL: 300 ppm AMP: 500 ppm 10 minutes. NIOSH REL (United States, 10/2020). TWA: 100 ppm 10 hours. TWA: 375 mg/m ³ 10 hours. STEL: 150 ppm 15 minutes. STEL: 560 mg/m ³ 15 minutes. ACGIH TLV (United States, 1/2024). Ototoxicant. TWA: 20 ppm 8 hours.
Ethyl Acetate	141-78-6	ACGIH TLV (United States, 1/2024). TWA: 400 ppm 8 hours. TWA: 1440 mg/m ³ 8 hours. NIOSH REL (United States, 10/2020). TWA: 400 ppm 10 hours. TWA: 1400 mg/m ³ 10 hours. OSHA PEL (United States, 5/2018). TWA: 400 ppm 8 hours. TWA: 1400 mg/m ³ 8 hours.
1-Butanol	71-36-3	ACGIH TLV (United States, 1/2024). TWA: 20 ppm 8 hours. NIOSH REL (United States, 10/2020). Absorbed through skin. CEIL: 50 ppm CEIL: 150 mg/m ³ OSHA PEL (United States, 5/2018). TWA: 100 ppm 8 hours. TWA: 300 mg/m ³ 8 hours.
Ethanol	64-17-5	ACGIH TLV (United States, 1/2024). STEL: 1000 ppm 15 minutes. NIOSH REL (United States, 10/2020). TWA: 1000 ppm 10 hours. TWA: 1900 mg/m ³ 10 hours. OSHA PEL (United States, 5/2018). TWA: 1000 ppm 8 hours. TWA: 1900 mg/m ³ 8 hours.
Xylene, mixed isomers	1330-20-7	OSHA PEL (United States, 5/2018). [Xylenes] TWA: 100 ppm 8 hours.

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2-Methyl-1-propanol	78-83-1	<p>TWA: 435 mg/m³ 8 hours. ACGIH TLV (United States, 1/2024). [p-xylene and mixtures containing p-xylene] Ototoxicant. TWA: 20 ppm 8 hours. ACGIH TLV (United States, 1/2024). TWA: 50 ppm 8 hours. TWA: 152 mg/m³ 8 hours. NIOSH REL (United States, 10/2020). TWA: 50 ppm 10 hours. TWA: 150 mg/m³ 10 hours. OSHA PEL (United States, 5/2018). TWA: 100 ppm 8 hours. TWA: 300 mg/m³ 8 hours.</p>
Methanol	67-56-1	<p>ACGIH TLV (United States, 1/2024). Absorbed through skin. TWA: 200 ppm 8 hours. TWA: 262 mg/m³ 8 hours. STEL: 250 ppm 15 minutes. STEL: 328 mg/m³ 15 minutes. NIOSH REL (United States, 10/2020). Absorbed through skin. TWA: 200 ppm 10 hours. TWA: 260 mg/m³ 10 hours. STEL: 250 ppm 15 minutes. STEL: 325 mg/m³ 15 minutes. OSHA PEL (United States, 5/2018). TWA: 200 ppm 8 hours. TWA: 260 mg/m³ 8 hours.</p>
Cellulose Nitrate Amorphous Silica	9004-70-0 7631-86-9	<p>None. NIOSH REL (United States, 10/2020). [SILICA, AMORPHOUS] TWA: 6 mg/m³ 10 hours.</p>
Ethylbenzene	100-41-4	<p>ACGIH TLV (United States, 1/2024). Ototoxicant. TWA: 20 ppm 8 hours. NIOSH REL (United States, 10/2020). TWA: 100 ppm 10 hours. TWA: 435 mg/m³ 10 hours. STEL: 125 ppm 15 minutes. STEL: 545 mg/m³ 15 minutes. OSHA PEL (United States, 5/2018). TWA: 100 ppm 8 hours. TWA: 435 mg/m³ 8 hours.</p>
Light Aromatic Hydrocarbons trimethylbenzene	64742-95-6 25551-13-7	<p>None. ACGIH TLV (United States, 1/2024). [trimethyl benzene, isomers] TWA: 10 ppm 8 hours.</p>
glyoxal	107-22-2	<p>ACGIH TLV (United States, 1/2024). Skin sensitizers. TWA: 0.1 mg/m³ 8 hours. Form: Inhalable fraction and vapor OARS WEEL (United States, 4/2022). Skin sensitizers. TWA: 0.1 mg/m³ 8 hours.</p>

[Occupational exposure limits \(Canada\)](#)

Section 8. Exposure controls/personal protection

Ingredient name	CAS #	Exposure limits
n-butyl acetate	123-86-4	CA Alberta Provincial (Canada, 3/2023). OEL: 200 ppm 15 minutes. OEL: 950 mg/m ³ 15 minutes. OEL: 150 ppm 8 hours. OEL: 713 mg/m ³ 8 hours. CA Saskatchewan Provincial (Canada, 4/2021). STEL: 200 ppm 15 minutes. TWA: 150 ppm 8 hours. CA Ontario Provincial (Canada, 6/2019). [butyl acetates, all isomers] STEL: 150 ppm 15 minutes. TWA: 50 ppm 8 hours. CA British Columbia Provincial (Canada, 8/2023). [butyl acetate, all isomers] STEL: 150 ppm 15 minutes. TWA: 50 ppm 8 hours. CA Quebec Provincial (Canada, 2/2024). [butyl acetates] STEV: 150 ppm 15 minutes. TWAEV: 50 ppm 8 hours.
toluene	108-88-3	CA Alberta Provincial (Canada, 3/2023). Absorbed through skin. OEL: 50 ppm 8 hours. OEL: 188 mg/m ³ 8 hours. CA British Columbia Provincial (Canada, 8/2023). TWA: 20 ppm 8 hours. CA Ontario Provincial (Canada, 6/2019). TWA: 20 ppm 8 hours. CA Quebec Provincial (Canada, 2/2024). Ototoxicant. TWAEV: 20 ppm 8 hours. CA Saskatchewan Provincial (Canada, 4/2021). Absorbed through skin. STEL: 60 ppm 15 minutes. TWA: 50 ppm 8 hours.
Normal butyl alcohol	71-36-3	CA Alberta Provincial (Canada, 3/2023). OEL: 60 mg/m ³ 8 hours. OEL: 20 ppm 8 hours. CA British Columbia Provincial (Canada, 8/2023). TWA: 15 ppm 8 hours. C: 30 ppm CA Ontario Provincial (Canada, 6/2019). TWA: 20 ppm 8 hours. CA Saskatchewan Provincial (Canada, 4/2021). STEL: 30 ppm 15 minutes. TWA: 20 ppm 8 hours. CA Quebec Provincial (Canada, 2/2024). TWAEV: 20 ppm 8 hours.
Ethyl alcohol	64-17-5	CA Alberta Provincial (Canada, 3/2023). OEL: 1000 ppm 8 hours. OEL: 1880 mg/m ³ 8 hours.

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Xylene	1330-20-7	<p>CA British Columbia Provincial (Canada, 8/2023). STEL: 1000 ppm 15 minutes.</p> <p>CA Ontario Provincial (Canada, 6/2019). STEL: 1000 ppm 15 minutes.</p> <p>CA Saskatchewan Provincial (Canada, 4/2021). STEL: 1250 ppm 15 minutes. TWA: 1000 ppm 8 hours.</p> <p>CA Quebec Provincial (Canada, 2/2024). STEV: 1000 ppm 15 minutes.</p> <p>CA Alberta Provincial (Canada, 3/2023). [Dimethylbenzene] OEL: 100 ppm 8 hours. OEL: 651 mg/m³ 15 minutes. OEL: 150 ppm 15 minutes. OEL: 434 mg/m³ 8 hours.</p> <p>CA British Columbia Provincial (Canada, 8/2023). [Xylene (o, m & p isomers)] TWA: 100 ppm 8 hours. STEL: 150 ppm 15 minutes.</p> <p>CA Quebec Provincial (Canada, 2/2024). [Xylene] TWAEV: 100 ppm 8 hours. TWAEV: 434 mg/m³ 8 hours. STEV: 150 ppm 15 minutes. STEV: 651 mg/m³ 15 minutes.</p> <p>CA Ontario Provincial (Canada, 6/2019). [Xylene (o-, m-, p-isomers)] STEL: 150 ppm 15 minutes. TWA: 100 ppm 8 hours.</p> <p>CA Saskatchewan Provincial (Canada, 4/2021). [Xylene] STEL: 150 ppm 15 minutes. TWA: 100 ppm 8 hours.</p>
Isobutyl alcohol	78-83-1	<p>CA Alberta Provincial (Canada, 3/2023). OEL: 50 ppm 8 hours. OEL: 152 mg/m³ 8 hours.</p> <p>CA British Columbia Provincial (Canada, 8/2023). TWA: 50 ppm 8 hours.</p> <p>CA Ontario Provincial (Canada, 6/2019). TWA: 50 ppm 8 hours.</p> <p>CA Quebec Provincial (Canada, 2/2024). TWAEV: 50 ppm 8 hours. TWAEV: 152 mg/m³ 8 hours.</p> <p>CA Saskatchewan Provincial (Canada, 4/2021). STEL: 60 ppm 15 minutes. TWA: 50 ppm 8 hours.</p>
Methyl alcohol	67-56-1	<p>CA Alberta Provincial (Canada, 3/2023). Absorbed through skin. OEL: 262 mg/m³ 8 hours. OEL: 200 ppm 8 hours. OEL: 250 ppm 15 minutes. OEL: 328 mg/m³ 15 minutes.</p> <p>CA British Columbia Provincial (Canada,</p>

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		<p>8/2023). Absorbed through skin. TWA: 200 ppm 8 hours. STEL: 250 ppm 15 minutes. CA Ontario Provincial (Canada, 6/2019). Absorbed through skin. TWA: 200 ppm 8 hours. STEL: 250 ppm 15 minutes. CA Quebec Provincial (Canada, 2/2024). Absorbed through skin. TWA: 200 ppm 8 hours. TWA: 262 mg/m³ 8 hours. STEL: 250 ppm 15 minutes. STEL: 328 mg/m³ 15 minutes. CA Saskatchewan Provincial (Canada, 4/2021). Absorbed through skin. STEL: 250 ppm 15 minutes. TWA: 200 ppm 8 hours.</p>
Ethylbenzene	100-41-4	<p>CA Alberta Provincial (Canada, 3/2023). OEL: 100 ppm 8 hours. OEL: 434 mg/m³ 8 hours. OEL: 543 mg/m³ 15 minutes. OEL: 125 ppm 15 minutes. CA British Columbia Provincial (Canada, 8/2023). TWA: 20 ppm 8 hours. CA Ontario Provincial (Canada, 6/2019). TWA: 20 ppm 8 hours. CA Quebec Provincial (Canada, 2/2024). TWA: 20 ppm 8 hours. CA Saskatchewan Provincial (Canada, 4/2021). STEL: 125 ppm 15 minutes. TWA: 100 ppm 8 hours.</p>
Cyclohexanone	108-94-1	<p>CA Alberta Provincial (Canada, 3/2023). Absorbed through skin. OEL: 20 ppm 8 hours. OEL: 80 mg/m³ 8 hours. OEL: 200 mg/m³ 15 minutes. OEL: 50 ppm 15 minutes. CA British Columbia Provincial (Canada, 8/2023). Absorbed through skin. TWA: 20 ppm 8 hours. STEL: 50 ppm 15 minutes. CA Ontario Provincial (Canada, 6/2019). Absorbed through skin. TWA: 20 ppm 8 hours. STEL: 50 ppm 15 minutes. CA Quebec Provincial (Canada, 2/2024). Absorbed through skin. TWA: 20 ppm 8 hours. STEL: 50 ppm 15 minutes. CA Saskatchewan Provincial (Canada, 4/2021). Absorbed through skin. STEL: 50 ppm 15 minutes. TWA: 20 ppm 8 hours.</p>
Glyoxal	107-22-2	<p>CA Saskatchewan Provincial (Canada, 4/2021). Skin sensitizer. Inhalation</p>

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sensitizer.

STEL: 0.3 mg/m³ 15 minutes. Form: Inhalable fraction and vapour

TWA: 0.1 mg/m³ 8 hours. Form: Inhalable fraction and vapour

CA Ontario Provincial (Canada, 6/2019).

TWA: 0.1 mg/m³ 8 hours. Form: Inhalable fraction and vapour.

CA Alberta Provincial (Canada, 3/2023).

OEL: 0.1 mg/m³ 8 hours.

CA British Columbia Provincial (Canada, 8/2023). Skin sensitizer. Notes: vapour and inhalable aerosol.

TWA: 0.1 mg/m³ 8 hours. Form: Inhalable vapour and aerosol

Occupational exposure limits (Mexico)

Ingredient name	CAS #	Exposure limits
n-Butyl Acetate	123-86-4	NOM-010-STPS-2014 (Mexico, 4/2016). TWA: 150 ppm 8 hours. STEL: 200 ppm 15 minutes.
Toluene	108-88-3	NOM-010-STPS-2014 (Mexico, 4/2016). TWA: 20 ppm 8 hours.
Ethyl Acetate	141-78-6	NOM-010-STPS-2014 (Mexico, 4/2016). TWA: 400 ppm 8 hours.
1-Butanol	71-36-3	NOM-010-STPS-2014 (Mexico, 4/2016). Absorbed through skin. TWA: 20 ppm 8 hours.
Ethanol	64-17-5	NOM-010-STPS-2014 (Mexico, 4/2016). STEL: 1000 ppm 15 minutes.
Xylene, mixed isomers	1330-20-7	NOM-010-STPS-2014 (Mexico, 4/2016). [Xileno, mezcla] STEL: 150 ppm 15 minutes. TWA: 100 ppm 8 hours.
2-Methyl-1-propanol	78-83-1	NOM-010-STPS-2014 (Mexico, 4/2016). TWA: 50 ppm 8 hours.
Methanol	67-56-1	NOM-010-STPS-2014 (Mexico, 4/2016). Absorbed through skin. TWA: 200 ppm 8 hours. STEL: 250 ppm 15 minutes.

Biological exposure indices (United States)

Ingredient name	Exposure indices
Toluene	ACGIH BEI (United States, 1/2024) BEI: 0.03 mg/l, toluene [in urine]. Sampling time: end of shift. BEI: 0.3 mg/g creatinine, o-cresol [in urine]. Sampling time: end of shift. BEI: 0.02 mg/l, toluene [in blood]. Sampling time: prior to last shift of workweek.
Xylene, mixed isomers	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.

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Methanol	ACGIH BEI (United States, 1/2024) BEI: 15 mg/l, methanol [in urine]. Sampling time: end of shift.
Ethylbenzene	ACGIH BEI (United States, 1/2024) BEI: 150 mg/g creatinine, sum of mandelic acid and phenylglyoxylic acid [in urine]. Sampling time: end of shift.

Biological exposure indices (Canada)

No exposure indices known.

Biological exposure indices (Mexico)

Ingredient name	Exposure indices
Toluene	Official Mexican STANDARD NOM-047-SSA1-2011, Environmental Health-Biological exposure indices for personnel occupationally exposed to chemical substances. (Mexico, 6/2012) BEI: 0.05 mg/L, toluene [in blood]. Sampling time: sample time not specified. BEI: 1.6 g/g creatinine [Basal level.The determinant may be present in the biological sample obtained from subjects who have not been occupationally exposed, at a concentration that could affect the interpretation of the results. These background levels are included in the valu; non-specific.The determinant is nonspecific, since it can be found after exposure to other chemicals.], hippuric acid [in urine]. Sampling time: at the end of the work shift. BEI: 0.5 mg/L [Basal level.The determinant may be present in the biological sample obtained from subjects who have not been occupationally exposed, at a concentration that could affect the interpretation of the results. These background levels are included in the valu], o-cresol [in urine]. Sampling time: at the end of the work shift.
Xylene, mixed isomers	Official Mexican STANDARD NOM-047-SSA1-2011, Environmental Health-Biological exposure indices for personnel occupationally exposed to chemical substances. (Mexico, 6/2012) [xylenes (technical or commercial grade)] BEI: 1.5 g/g creatinine, methyl hippuric acids [in urine]. Sampling time: at the end of the work shift.
Methanol	Official Mexican STANDARD NOM-047-SSA1-2011, Environmental Health-Biological exposure indices for personnel occupationally exposed to chemical substances. (Mexico, 6/2012)

Section 8. Exposure controls/personal protection

BEI: 15 mg/L [Basal level. The determinant may be present in the biological sample obtained from subjects who have not been occupationally exposed, at a concentration that could affect the interpretation of the results. These background levels are included in the value; non-specific. The determinant is nonspecific, since it can be found after exposure to other chemicals.], methane [in urine]. Sampling time: at the end of the work shift.

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

Environmental exposure controls : **This product contains a component that is either subject to a CEPA ministerial condition or an existing/proposed SNAC (Significant New Activity).**
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, initial boiling point, and boiling range	: 64°C (147.2°F)
Flash point	: Closed cup: 16°C (60.8°F) [Pensky-Martens Closed Cup]
Evaporation rate	: 3.91 (butyl acetate = 1)
Flammability	: Flammable liquid.
Lower and upper explosion limit/flammability limit	: Lower: 1% Upper: 36.5%
Vapor pressure	: 12.3 kPa (92 mm Hg)
Relative vapor density	: 1.11 [Air = 1]
Relative density	: 0.95
Solubility(ies)	:

Media	Result
cold water	Not soluble

Partition coefficient: n-octanol/water	: Not applicable.
Auto-ignition temperature	: Not available.
Decomposition temperature	: Not available.
Viscosity	: Kinematic (40°C (104°F)): <20.5 mm ² /s (<20.5 cSt)
Molecular weight	: Not applicable.
Heat of combustion	: 17.734 kJ/g

Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapor to accumulate in low or confined areas.
Incompatible materials	: Reactive or incompatible with the following materials: oxidizing materials

Section 10. Stability and reactivity

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

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
n-Butyl Acetate	LD50 Dermal	Rabbit	>17600 mg/kg	-
	LD50 Oral	Rat	10768 mg/kg	-
2-methoxy-1-methylethyl acetate	LD50 Dermal	Rabbit	>5 g/kg	-
	LD50 Oral	Rat	8532 mg/kg	-
Toluene	LC50 Inhalation Vapor	Rat	49 g/m ³	4 hours
	LD50 Oral	Rat	636 mg/kg	-
Ethyl Acetate	LD50 Oral	Rat	5620 mg/kg	-
1-Butanol	LC50 Inhalation Vapor	Rat	24000 mg/m ³	4 hours
	LD50 Dermal	Rabbit	3400 mg/kg	-
	LD50 Oral	Rat	790 mg/kg	-
Ethanol	LC50 Inhalation Vapor	Rat	124700 mg/m ³	4 hours
	LD50 Oral	Rat	7 g/kg	-
Xylene, mixed isomers	LC50 Inhalation Gas.	Rat	6700 ppm	4 hours
	LD50 Oral	Rat	4300 mg/kg	-
2-Methyl-1-propanol	LC50 Inhalation Vapor	Rat	19200 mg/m ³	4 hours
	LD50 Dermal	Rabbit	3400 mg/kg	-
	LD50 Oral	Rat	2460 mg/kg	-
Methanol	LC50 Inhalation Gas.	Rat	145000 ppm	1 hours
	LC50 Inhalation Gas.	Rat	64000 ppm	4 hours
	LD50 Dermal	Rabbit	15800 mg/kg	-
	LD50 Oral	Rat	5600 mg/kg	-
Cellulose Nitrate	LD50 Oral	Rat	>5 g/kg	-
Ethylbenzene	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	3500 mg/kg	-
Light Aromatic Hydrocarbons	LD50 Oral	Rat	8400 mg/kg	-
trimethylbenzene	LD50 Oral	Rat	8970 mg/kg	-
glyoxal	LD50 Oral	Rat	200 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
n-Butyl Acetate	Eyes - Moderate irritant	Rabbit	-	100 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 mg	-
Toluene	Eyes - Mild irritant	Rabbit	-	0.5 minutes 100 mg	-
	Eyes - Mild irritant	Rabbit	-	870 ug	-
	Eyes - Severe irritant	Rabbit	-	0.1 MI	-
	Eyes - Severe irritant	Rabbit	-	24 hours 2 mg	-
	Skin - Mild irritant	Pig	-	24 hours 250 uL	-
	Skin - Mild irritant	Rabbit	-	435 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 mg	-
1-Butanol	Skin - Moderate irritant	Rabbit	-	500 mg	-
	Eyes - Severe irritant	Rabbit	-	0.005 MI	-
	Eyes - Severe irritant	Rabbit	-	24 hours 2 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 mg	-

Section 11. Toxicological information

Ethanol	Eyes - Mild irritant	Rabbit	-	mg 24 hours 500	-
	Eyes - Moderate irritant	Rabbit	-	mg 0.066666667 minutes 100	-
	Eyes - Moderate irritant	Rabbit	-	mg 100 uL	-
	Eyes - Severe irritant	Rabbit	-	500 mg	-
	Skin - Mild irritant	Rabbit	-	400 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20	-
Xylene, mixed isomers	Eyes - Mild irritant	Rabbit	-	mg 87 mg	-
	Eyes - Severe irritant	Rabbit	-	24 hours 5	-
	Skin - Mild irritant	Rat	-	mg 8 hours 60 uL	-
	Skin - Moderate irritant	Rabbit	-	100 %	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500	-
				mg	
Methanol	Eyes - Moderate irritant	Rabbit	-	24 hours 100	-
				mg	
	Eyes - Moderate irritant	Rabbit	-	40 mg	-
	Eyes - Severe irritant	Rabbit	-	0.1 MI	-
Amorphous Silica	Skin - Moderate irritant	Rabbit	-	24 hours 20	-
				mg	
Ethylbenzene	Eyes - Mild irritant	Rabbit	-	24 hours 25	-
				mg	
Light Aromatic Hydrocarbons	Eyes - Severe irritant	Rabbit	-	500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 15	-
trimethylbenzene	Eyes - Mild irritant	Rabbit	-	mg 24 hours 100	-
				uL	
glyoxal	Eyes - Mild irritant	Rabbit	-	24 hours 500	-
	Eyes - Moderate irritant	Rabbit	-	mg 24 hours 500	-
				mg	
	Eyes - Mild irritant	Rabbit	-	100 uL	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 100	-
				uL	
	Eyes - Severe irritant	Rabbit	-	20 mg	-
	Skin - Mild irritant	Rabbit	-	258 mg	-
	Skin - Mild irritant	Rabbit	-	4 hours 500	-
				uL	

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Classification

Section 11. Toxicological information

Product/ingredient name	OSHA	IARC	NTP
Toluene	-	3	-
Ethanol	-	1	-
Xylene, mixed isomers	-	3	-
Amorphous Silica	-	3	-
Ethylbenzene	-	2B	-

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
n-Butyl Acetate	Category 3	-	Narcotic effects
2-methoxy-1-methylethyl acetate	Category 3	-	Narcotic effects
Toluene	Category 3	-	Narcotic effects
Ethyl Acetate	Category 3	-	Narcotic effects
1-Butanol	Category 3	-	Respiratory tract irritation
Ethanol	Category 3	-	Narcotic effects
Xylene, mixed isomers	Category 3	-	Narcotic effects
			Respiratory tract irritation
2-Methyl-1-propanol	Category 3	-	Narcotic effects
	Category 3		Respiratory tract irritation
Methanol	Category 3	-	Narcotic effects
	Category 1		-
	Category 3	-	Narcotic effects
Ethylbenzene	Category 3	-	Narcotic effects
Light Aromatic Hydrocarbons	Category 3	-	Respiratory tract irritation
	Category 3		Narcotic effects

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
Toluene	Category 2	-	-
Xylene, mixed isomers	Category 2	-	-
Ethylbenzene	Category 2	-	-

Aspiration hazard

Name	Result
Toluene	ASPIRATION HAZARD - Category 1
Xylene, mixed isomers	ASPIRATION HAZARD - Category 1
Ethylbenzene	ASPIRATION HAZARD - Category 1
Light Aromatic Hydrocarbons	ASPIRATION HAZARD - Category 1
trimethylbenzene	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure : Not available.

Potential acute health effects

Section 11. Toxicological information

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

Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : Adverse symptoms may include the following:
pain
watering
redness
- Inhalation** : Adverse symptoms may include the following:
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
reduced fetal weight
increase in fetal deaths
skeletal malformations
- Skin contact** : Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur
reduced fetal weight
increase in fetal deaths
skeletal malformations
- Ingestion** : Adverse symptoms may include the following:
stomach pains
nausea or vomiting
reduced fetal weight
increase in fetal deaths
skeletal malformations

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

Short term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

Long term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

Potential chronic health effects

Not available.

- General** : May cause damage to organs through prolonged or repeated exposure. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
- Carcinogenicity** : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.
- Mutagenicity** : No known significant effects or critical hazards.

Section 11. Toxicological information

Teratogenicity	: May damage the unborn child.
Developmental effects	: No known significant effects or critical hazards.
Fertility effects	: Suspected of damaging fertility.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Oral	2655.27 mg/kg
Dermal	5193.9 mg/kg
Inhalation (vapors)	91.45 mg/l

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
n-Butyl Acetate	Acute LC50 32 mg/l Marine water	Crustaceans - <i>Artemia salina</i>	48 hours
Toluene	Acute LC50 18000 µg/l Fresh water	Fish - <i>Pimephales promelas</i>	96 hours
	Acute EC50 12500 µg/l Fresh water	Algae - <i>Raphidocelis subcapitata</i>	72 hours
	Acute EC50 11600 µg/l Fresh water	Crustaceans - <i>Gammarus pseudolimnaeus</i> - Adult	48 hours
	Acute EC50 6000 µg/l Fresh water	Daphnia - <i>Daphnia magna</i> - Juvenile (Fledgling, Hatchling, Weanling)	48 hours
Ethyl Acetate	Acute LC50 5500 µg/l Fresh water	Fish - <i>Oncorhynchus kisutch</i> - Fry	96 hours
	Chronic NOEC 1 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	21 days
	Acute EC50 2500000 µg/l Fresh water	Algae - <i>Selenastrum sp.</i>	96 hours
	Acute LC50 750000 µg/l Fresh water	Crustaceans - <i>Gammarus pulex</i>	48 hours
	Acute LC50 154000 µg/l Fresh water	Daphnia - <i>Daphnia cucullata</i>	48 hours
	Acute LC50 212500 µg/l Fresh water	Fish - <i>Heteropneustes fossilis</i>	96 hours
	Chronic NOEC 2.4 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	21 days
	Chronic NOEC 75.6 mg/l Fresh water	Fish - <i>Pimephales promelas</i> - Embryo	32 days
1-Butanol	Acute EC50 1983 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 hours
Ethanol	Acute LC50 1730000 µg/l Fresh water	Fish - <i>Pimephales promelas</i>	96 hours
	Acute EC50 17.921 mg/l Marine water	Algae - <i>Ulva pertusa</i>	96 hours
	Acute EC50 2 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 hours
	Acute LC50 25500 µg/l Marine water	Crustaceans - <i>Artemia franciscana</i> - Larvae	48 hours
	Acute LC50 42000 µg/l Fresh water	Fish - <i>Oncorhynchus mykiss</i>	4 days
	Chronic NOEC 4.995 mg/l Marine water	Algae - <i>Ulva pertusa</i>	96 hours
	Chronic NOEC 100 ul/L Fresh water	Daphnia - <i>Daphnia magna</i> - Neonate	21 days
	Chronic NOEC 0.375 ul/L Fresh water	Fish - <i>Gambusia holbrooki</i> - Larvae	12 weeks
Xylene, mixed isomers	Acute LC50 8500 µg/l Marine water	Crustaceans - <i>Palaemonetes pugio</i>	48 hours
2-Methyl-1-propanol	Acute LC50 13400 µg/l Fresh water	Fish - <i>Pimephales promelas</i>	96 hours
	Acute LC50 600 mg/l Marine water	Crustaceans - <i>Artemia salina</i>	48 hours
	Acute LC50 1030000 µg/l Fresh water	Daphnia - <i>Daphnia magna</i> - Neonate	48 hours
	Acute LC50 1330000 µg/l Fresh water	Fish - <i>Oncorhynchus mykiss</i>	96 hours
	Chronic NOEC 4 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	21 days
Methanol	Acute EC50 16.912 mg/l Marine water	Algae - <i>Ulva pertusa</i>	96 hours

Section 12. Ecological information

Cellulose Nitrate Amorphous Silica	Acute LC50 2500000 µg/l Marine water	Crustaceans - <i>Crangon crangon</i> - Adult	48 hours
	Acute LC50 3289 mg/l Fresh water	Daphnia - <i>Daphnia magna</i> - Neonate	48 hours
	Acute LC50 290 mg/l Fresh water	Fish - <i>Danio rerio</i> - Egg	96 hours
	Chronic NOEC 9.96 mg/l Marine water	Algae - <i>Ulva pertusa</i>	96 hours
	Acute EC50 579000 µg/l Fresh water	Algae - <i>Raphidocelis subcapitata</i>	96 hours
	Acute EC50 2.2 g/L Fresh water	Daphnia - <i>Daphnia magna</i> - Neonate	48 hours
Ethylbenzene	Chronic NOEC 12.5 mg/l Fresh water	Daphnia - <i>Daphnia magna</i> - Neonate	21 days
	Acute EC50 4600 µg/l Fresh water	Algae - <i>Raphidocelis subcapitata</i>	72 hours
	Acute EC50 3600 µg/l Fresh water	Algae - <i>Raphidocelis subcapitata</i>	96 hours
	Acute EC50 6.53 mg/l Marine water	Crustaceans - <i>Artemia sp.</i> - Nauplii	48 hours
trimethylbenzene	Acute EC50 2.93 mg/l Fresh water	Daphnia - <i>Daphnia magna</i> - Neonate	48 hours
	Acute LC50 4200 µg/l Fresh water	Fish - <i>Oncorhynchus mykiss</i>	96 hours
	Acute LC50 5600 µg/l Marine water	Crustaceans - <i>Palaemonetes pugio</i>	48 hours
glyoxal	Acute EC50 66480 µg/l Fresh water	Algae - <i>Raphidocelis subcapitata</i>	96 hours
	Acute LC50 215000 µg/l Fresh water	Fish - <i>Pimephales promelas</i>	96 hours

Persistence and degradability

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

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Toluene	-	90	Low
Ethyl Acetate	-	30	Low
Xylene, mixed isomers	-	8.1 to 25.9	Low
Methanol	-	<10	Low
Light Aromatic Hydrocarbons	-	10 to 2500	High
glyoxal	-	3.2	Low

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

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






Section 13. Disposal considerations

Disposal methods

: This product contains a component that is either subject to a CEPA ministerial condition or an existing/proposed SNAC (Significant New Activity).

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	- <u>ERG No.</u> 128	Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.18-2.19 (Class 3). <u>ERG No.</u> 128	- <u>ERG No.</u> 128	-	<u>Emergency schedules</u> 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

This product contains a component that is either subject to a CEPA ministerial condition or an existing/proposed SNAC (Significant New Activity).

International regulations

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

List name	Ingredient name	Status
Annex A - Elimination - Production	UV-328	Listed
Annex A - Elimination - Use	UV-328	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	*	4
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 : 3/3/2025	Date of previous issue : 1/16/2025	Version : 31	23/25
DM5610003	Bernyl™ FF Conversion Varnish 35 Gloss	SHW-85-NA-GHS-CA	

Section 16. Other information

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

History

Date of printing : 3/3/2025

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Version : 31

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.

