

SAFETY DATA SHEET

NM5800035

Section 1. Identification

Product name : Bernyl™ FF Hi-Bild Pre-Catalyzed Lacquer
40 Gloss

Product code : NM5800035

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
Mexico: SETIQ 800-00-214-00 / 55-5559-1588 Available 24 hours and 365 days a year

Section 2. Hazards identification

Classification of the substance or mixture : FLAMMABLE LIQUIDS - Category 2
SKIN CORROSION/IRRITATION - Category 2
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
SKIN SENSITIZATION - Category 1
CARCINOGENICITY - Category 2
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity: 4.8% (oral), 21.2% (dermal), 22.5% (inhalation)

GHS label elements

Hazard pictograms



Signal word : Danger

Date of issue/Date of revision : 5/16/2024 **Date of previous issue** : 4/19/2024

NM5800035 Bernyl™ FF Hi-Bild Pre-Catalyzed Lacquer
40 Gloss

Version : 23

1/23

SHW-85-NA-GHS-CA

Section 2. Hazards identification

| | |
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| Hazard statements | <ul style="list-style-type: none">: Highly flammable liquid and vapor.Causes skin irritation.May cause an allergic skin reaction.Causes serious eye damage.May cause drowsiness or dizziness.Suspected of causing cancer.May cause damage to organs through prolonged or repeated exposure. |
| Precautionary statements | |
| Prevention | <ul style="list-style-type: none">: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing and eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating or lighting equipment. Use non-sparking tools. Take action to prevent static discharges. Use only outdoors or in a well-ventilated area. Do not breathe vapor. Wash thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace. |
| Response | <ul style="list-style-type: none">: 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. 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 | <ul style="list-style-type: none">: Store locked up. Store in a well-ventilated place. Keep container tightly closed. Keep cool. |
| Disposal | <ul style="list-style-type: none">: Dispose of contents and container in accordance with all local, regional, national and international regulations. |
| Supplemental label elements | <p>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.</p> <p>This product contains a component that is either subject to a CEPA ministerial condition or an existing/proposed SNAC (Significant New Activity).</p> <p>Please refer to the SDS for additional information. Keep out of reach of children. Do not transfer contents to other containers for storage.</p> |
| Hazards not otherwise classified | <ul style="list-style-type: none">: 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 | |

Section 3. Composition/information on ingredients

| Ingredient name | % by weight | CAS number |
|-----------------------------------|-------------|------------|
| n-Butyl Acetate | 18.05 | 123-86-4 |
| Methyl n-Amyl Ketone | 11.53 | 110-43-0 |
| Ethanol | 10 | 64-17-5 |
| Methyl Acetate | 8.08 | 79-20-9 |
| Cellulose Nitrate | 6.38 | 9004-70-0 |
| Lt. Aliphatic Hydrocarbon Solvent | 4.82 | 64742-89-8 |
| Methyl Ethyl Ketone | 4.39 | 78-93-3 |
| 1-Butanol | 3.74 | 71-36-3 |
| 2-Propanol | 3.24 | 67-63-0 |
| 2-Methyl-1-propanol | 2.6 | 78-83-1 |
| Xylene, mixed isomers | 0.79 | 1330-20-7 |
| Light Aromatic Hydrocarbons | 0.28 | 64742-95-6 |
| Ethylbenzene | 0.15 | 100-41-4 |
| Heavy Aliphatic Solvent | 0.13 | 64742-82-1 |
| trimethylbenzene | 0.1 | 25551-13-7 |
| glyoxal | 0.1 | 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.
- 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.

Section 4. First aid measures

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Causes serious eye damage.
- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
- Skin contact** : Causes skin irritation. May cause an allergic skin reaction.
- Ingestion** : Can cause central nervous system (CNS) depression.

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
- Skin contact** : Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur
- Ingestion** : Adverse symptoms may include the following:
stomach pains

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

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use dry chemical, CO₂, water spray (fog) or foam.
- Unsuitable extinguishing media** : Do not use water jet.

- Specific hazards arising from the chemical** : Highly flammable liquid and vapor. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back.

Section 5. Fire-fighting measures

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

Methods and materials for containment and cleaning up

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

Section 7. Handling and storage

Precautions for safe handling

Section 7. Handling and storage

- Protective measures

: Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. 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.
- 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 | NIOSH REL (United States, 10/2020). TWA: 150 ppm 10 hours. TWA: 710 mg/m³ 10 hours. STEL: 200 ppm 15 minutes. STEL: 950 mg/m³ 15 minutes. OSHA PEL (United States, 5/2018). TWA: 150 ppm 8 hours. TWA: 710 mg/m³ 8 hours. ACGIH TLV (United States, 7/2023). [Butyl acetates] STEL: 150 ppm 15 minutes. TWA: 50 ppm 8 hours. |
| Methyl n-Amyl Ketone | 110-43-0 | ACGIH TLV (United States, 7/2023). TWA: 50 ppm 8 hours. TWA: 233 mg/m³ 8 hours. NIOSH REL (United States, 10/2020). TWA: 100 ppm 10 hours. TWA: 465 mg/m³ 10 hours. OSHA PEL (United States, 5/2018). TWA: 100 ppm 8 hours. TWA: 465 mg/m³ 8 hours. |
| Ethanol | 64-17-5 | ACGIH TLV (United States, 7/2023). STEL: 1000 ppm 15 minutes. |


Section 8. Exposure controls/personal protection

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| Methyl Acetate | 79-20-9 | <p>NIOSH REL (United States, 10/2020). TWA: 1000 ppm 10 hours. TWA: 1900 mg/m³ 10 hours.</p> <p>OSHA PEL (United States, 5/2018). TWA: 1000 ppm 8 hours. TWA: 1900 mg/m³ 8 hours.</p> <p>ACGIH TLV (United States, 7/2023). TWA: 200 ppm 8 hours. TWA: 606 mg/m³ 8 hours. STEL: 250 ppm 15 minutes. STEL: 757 mg/m³ 15 minutes.</p> <p>NIOSH REL (United States, 10/2020). TWA: 200 ppm 10 hours. TWA: 610 mg/m³ 10 hours. STEL: 250 ppm 15 minutes. STEL: 760 mg/m³ 15 minutes.</p> <p>OSHA PEL (United States, 5/2018). TWA: 200 ppm 8 hours. TWA: 610 mg/m³ 8 hours.</p> |
| Cellulose Nitrate Lt. Aliphatic Hydrocarbon Solvent Methyl Ethyl Ketone | 9004-70-0 64742-89-8 78-93-3 | <p>None. None.</p> <p>ACGIH TLV (United States, 7/2023). Absorbed through skin. TWA: 75 ppm 8 hours. STEL: 150 ppm 15 minutes.</p> <p>NIOSH REL (United States, 10/2020). TWA: 200 ppm 10 hours. TWA: 590 mg/m³ 10 hours. STEL: 300 ppm 15 minutes. STEL: 885 mg/m³ 15 minutes.</p> <p>OSHA PEL (United States, 5/2018). TWA: 200 ppm 8 hours. TWA: 590 mg/m³ 8 hours.</p> |
| 1-Butanol | 71-36-3 | <p>ACGIH TLV (United States, 7/2023). TWA: 20 ppm 8 hours.</p> <p>NIOSH REL (United States, 10/2020). Absorbed through skin. CEIL: 50 ppm CEIL: 150 mg/m³</p> <p>OSHA PEL (United States, 5/2018). TWA: 100 ppm 8 hours. TWA: 300 mg/m³ 8 hours.</p> |
| 2-Propanol | 67-63-0 | <p>ACGIH TLV (United States, 7/2023). TWA: 200 ppm 8 hours. STEL: 400 ppm 15 minutes.</p> <p>NIOSH REL (United States, 10/2020). TWA: 400 ppm 10 hours. TWA: 980 mg/m³ 10 hours. STEL: 500 ppm 15 minutes. STEL: 1225 mg/m³ 15 minutes.</p> <p>OSHA PEL (United States, 5/2018). TWA: 400 ppm 8 hours. TWA: 980 mg/m³ 8 hours.</p> |
| 2-Methyl-1-propanol | 78-83-1 | <p>ACGIH TLV (United States, 7/2023). TWA: 50 ppm 8 hours. TWA: 152 mg/m³ 8 hours.</p> <p>NIOSH REL (United States, 10/2020).</p> |

Section 8. Exposure controls/personal protection

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| Xylene, mixed isomers | 1330-20-7 | <p>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. OSHA PEL (United States, 5/2018). [Xylenes] TWA: 100 ppm 8 hours. TWA: 435 mg/m³ 8 hours. ACGIH TLV (United States, 7/2023). [p-xylene and mixtures containing p-xylene] Ototoxicant. TWA: 20 ppm 8 hours.</p> |
| Light Aromatic Hydrocarbons Ethylbenzene | 64742-95-6 100-41-4 | <p>None. ACGIH TLV (United States, 7/2023). 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> |
| Heavy Aliphatic Solvent trimethylbenzene | 64742-82-1 25551-13-7 | <p>None. ACGIH TLV (United States, 7/2023). [trimethyl benzene, isomers] TWA: 10 ppm 8 hours. ACGIH TLV (United States, 7/2023). Skin sensitizer. TWA: 0.1 mg/m³ 8 hours. Form: Inhalable fraction and vapor OARS WEEL (United States, 4/2022). Skin sensitizer. TWA: 0.1 mg/m³ 8 hours.</p> |
| glyoxal | 107-22-2 | <p>None. ACGIH TLV (United States, 7/2023). Skin sensitizer. TWA: 0.1 mg/m³ 8 hours. Form: Inhalable fraction and vapor OARS WEEL (United States, 4/2022). Skin sensitizer. TWA: 0.1 mg/m³ 8 hours.</p> |

Occupational exposure limits (Canada)

| Ingredient name | CAS # | Exposure limits |
|-----------------|----------|--|
| n-butyl acetate | 123-86-4 | <p>CA Alberta Provincial (Canada, 3/2023).  OEL: 200 ppm 15 minutes. OEL: 950 mg/m³ 15 minutes. OEL: 150 ppm 8 hours. OEL: 713 mg/m³ 8 hours. CA Saskatchewan Provincial (Canada, 7/2013). 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.</p> |

Section 8. Exposure controls/personal protection

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| Methyl n-amyl ketone | 110-43-0 | <p>CA Quebec Provincial (Canada, 7/2023). [butyl acetates] STEV: 150 ppm 15 minutes. TWAEV: 50 ppm 8 hours.</p> <p>CA Alberta Provincial (Canada, 3/2023). OEL: 233 mg/m³ 8 hours. OEL: 50 ppm 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: 25 ppm 8 hours. TWA: 115 mg/m³ 8 hours.</p> <p>CA Quebec Provincial (Canada, 7/2023). TWAEV: 50 ppm 8 hours. TWAEV: 233 mg/m³ 8 hours.</p> <p>CA Saskatchewan Provincial (Canada, 7/2013). STEL: 60 ppm 15 minutes. TWA: 50 ppm 8 hours.</p> |
| Ethyl alcohol | 64-17-5 | <p>CA Alberta Provincial (Canada, 3/2023). OEL: 1000 ppm 8 hours. OEL: 1880 mg/m³ 8 hours.</p> <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, 7/2013). STEL: 1250 ppm 15 minutes. TWA: 1000 ppm 8 hours.</p> <p>CA Quebec Provincial (Canada, 7/2023). STEV: 1000 ppm 15 minutes.</p> |
| Methyl acetate | 79-20-9 | <p>CA Alberta Provincial (Canada, 3/2023). OEL: 606 mg/m³ 8 hours. OEL: 757 mg/m³ 15 minutes. OEL: 250 ppm 15 minutes. OEL: 200 ppm 8 hours.</p> <p>CA British Columbia Provincial (Canada, 8/2023). TWA: 200 ppm 8 hours. STEL: 250 ppm 15 minutes.</p> <p>CA Ontario Provincial (Canada, 6/2019). TWA: 200 ppm 8 hours. STEL: 250 ppm 15 minutes.</p> <p>CA Quebec Provincial (Canada, 7/2023). TWAEV: 200 ppm 8 hours. TWAEV: 606 mg/m³ 8 hours. STEV: 250 ppm 15 minutes. STEV: 757 mg/m³ 15 minutes.</p> <p>CA Saskatchewan Provincial (Canada, 7/2013). STEL: 250 ppm 15 minutes. TWA: 200 ppm 8 hours.</p> |
| Methyl ethyl ketone | 78-93-3 | <p>CA Alberta Provincial (Canada, 3/2023). OEL: 300 ppm 15 minutes.</p> |

Section 8. Exposure controls/personal protection

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| | | <p>OEL: 200 ppm 8 hours. OEL: 590 mg/m³ 8 hours. OEL: 885 mg/m³ 15 minutes. CA British Columbia Provincial (Canada, 8/2023). Absorbed through skin. TWA: 50 ppm 8 hours. STEL: 100 ppm 15 minutes. CA Ontario Provincial (Canada, 6/2019). TWA: 200 ppm 8 hours. STEL: 300 ppm 15 minutes. CA Quebec Provincial (Canada, 7/2023). TWA_{EV}: 50 ppm 8 hours. TWA_{EV}: 150 mg/m³ 8 hours. STEV: 100 ppm 15 minutes. STEV: 300 mg/m³ 15 minutes. CA Saskatchewan Provincial (Canada, 7/2013). STEL: 300 ppm 15 minutes. TWA: 200 ppm 8 hours.</p> |
| Normal butyl alcohol | 71-36-3 | <p>CA Alberta Provincial (Canada, 3/2023). OEL: 60 mg/m³ 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 Quebec Provincial (Canada, 7/2023). Absorbed through skin. STEV: 50 ppm 15 minutes. STEV: 152 mg/m³ 15 minutes. CA Saskatchewan Provincial (Canada, 7/2013). STEL: 30 ppm 15 minutes. TWA: 20 ppm 8 hours.</p> |
| Isopropyl alcohol | 67-63-0 | <p>CA Alberta Provincial (Canada, 3/2023). OEL: 984 mg/m³ 15 minutes. OEL: 200 ppm 8 hours. OEL: 400 ppm 15 minutes. OEL: 492 mg/m³ 8 hours. CA British Columbia Provincial (Canada, 8/2023). TWA: 200 ppm 8 hours. STEL: 400 ppm 15 minutes. CA Ontario Provincial (Canada, 6/2019). TWA: 200 ppm 8 hours. STEL: 400 ppm 15 minutes. CA Quebec Provincial (Canada, 7/2023). TWA_{EV}: 200 ppm 8 hours. STEV: 400 ppm 15 minutes. CA Saskatchewan Provincial (Canada, 7/2013). STEL: 400 ppm 15 minutes. TWA: 200 ppm 8 hours.</p> |
| Isobutyl alcohol | 78-83-1 | <p>CA Alberta Provincial (Canada, 3/2023). OEL: 50 ppm 8 hours.</p> |

Section 8. Exposure controls/personal protection

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| Xylene | 1330-20-7 | <p>OEL: 152 mg/m³ 8 hours. CA British Columbia Provincial (Canada, 8/2023). TWA: 50 ppm 8 hours. CA Ontario Provincial (Canada, 6/2019). TWA: 50 ppm 8 hours. CA Quebec Provincial (Canada, 7/2023). TWAEV: 50 ppm 8 hours. TWAEV: 152 mg/m³ 8 hours. CA Saskatchewan Provincial (Canada, 7/2013). STEL: 60 ppm 15 minutes. TWA: 50 ppm 8 hours. 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. CA British Columbia Provincial (Canada, 8/2023). [Xylene (o, m & p isomers)] TWA: 100 ppm 8 hours. STEL: 150 ppm 15 minutes. CA Quebec Provincial (Canada, 7/2023). [Xylene] TWAEV: 100 ppm 8 hours. TWAEV: 434 mg/m³ 8 hours. STEV: 150 ppm 15 minutes. STEV: 651 mg/m³ 15 minutes. CA Ontario Provincial (Canada, 6/2019). [Xylene (o-, m-, p-isomers)] STEL: 150 ppm 15 minutes. TWA: 100 ppm 8 hours. CA Saskatchewan Provincial (Canada, 7/2013). [Xylene] STEL: 150 ppm 15 minutes. TWA: 100 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, 7/2023). TWAEV: 20 ppm 8 hours. CA Saskatchewan Provincial (Canada, 7/2013). STEL: 125 ppm 15 minutes. TWA: 100 ppm 8 hours.</p> |
| Glyoxal | 107-22-2 | <p>CA Saskatchewan Provincial (Canada, 7/2013). Skin sensitizer. Inhalation sensitizer. STEL: 0.3 mg/m³ 15 minutes. Form:</p> |

Section 8. Exposure controls/personal protection

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| | | <p>Inhalable fraction and vapour TWA: 0.1 mg/m³ 8 hours. Form: Inhalable fraction and vapour</p> <p>CA Ontario Provincial (Canada, 6/2019). TWA: 0.1 mg/m³ 8 hours. Form: Inhalable fraction and vapour.</p> <p>CA Alberta Provincial (Canada, 3/2023). OEL: 0.1 mg/m³ 8 hours.</p> <p>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</p> |
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Occupational exposure limits (Mexico)

| Ingredient name | CAS # | Exposure limits |
|----------------------|----------|--|
| n-Butyl Acetate | 123-86-4 | <p>NOM-010-STPS-2014 (Mexico, 4/2016). TWA: 150 ppm 8 hours. STEL: 200 ppm 15 minutes.</p> |
| Methyl n-Amyl Ketone | 110-43-0 | <p>NOM-010-STPS-2014 (Mexico, 4/2016). TWA: 50 ppm 8 hours.</p> |
| Ethanol | 64-17-5 | <p>NOM-010-STPS-2014 (Mexico, 4/2016). STEL: 1000 ppm 15 minutes.</p> |
| Methyl Acetate | 79-20-9 | <p>NOM-010-STPS-2014 (Mexico, 4/2016). TWA: 200 ppm 8 hours. STEL: 250 ppm 15 minutes.</p> |
| Methyl Ethyl Ketone | 78-93-3 | <p>NOM-010-STPS-2014 (Mexico, 4/2016). TWA: 200 ppm 8 hours. STEL: 300 ppm 15 minutes.</p> |
| 1-Butanol | 71-36-3 | <p>NOM-010-STPS-2014 (Mexico, 4/2016). Absorbed through skin. TWA: 20 ppm 8 hours.</p> |
| 2-Propanol | 67-63-0 | <p>NOM-010-STPS-2014 (Mexico, 4/2016). TWA: 200 ppm 8 hours. STEL: 400 ppm 15 minutes.</p> |
| 2-Methyl-1-propanol | 78-83-1 | <p>NOM-010-STPS-2014 (Mexico, 4/2016). TWA: 50 ppm 8 hours.</p> |

Biological exposure indices (United States)

| Ingredient name | Exposure indices |
|-----------------------|---|
| Methyl Ethyl Ketone | <p>ACGIH BEI (United States, 7/2023) BEI: 2 mg/l, methyl ethyl ketone [in urine]. Sampling time: end of shift.</p> |
| 2-Propanol | <p>ACGIH BEI (United States, 7/2023) BEI: 40 mg/l, acetone [in urine]. Sampling time: end of shift at end of workweek.</p> |
| Xylene, mixed isomers | <p>ACGIH BEI (United States, 7/2023) [xylenes (technical or commercial grades)] BEI: 0.3 g/g creatinine, methylhippuric acids [in urine]. Sampling time: end of shift.</p> |
| Ethylbenzene | <p>ACGIH BEI (United States, 7/2023) BEI: 0.15 g/g creatinine, sum of mandelic acid and phenylglyoxylic acid [in urine].</p> |

Section 8. Exposure controls/personal protection

Sampling time: end of shift.

Biological exposure indices (Canada)

No exposure indices known.

Biological exposure indices (Mexico)

| 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. |

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

Section 8. Exposure controls/personal 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** : 55°C (131°F)
- Flash point** : Closed cup: -2°C (28.4°F) [Pensky-Martens Closed Cup]
- Evaporation rate** : 5.6 (butyl acetate = 1)
- Flammability** : Flammable liquid.
- Lower and upper explosion limit/flammability limit** : Lower: 0.9%
Upper: 19%
- Vapor pressure** : 22.8 kPa (171 mm Hg)
- Relative vapor density** : 1.5 [Air = 1]
- Relative density** : 0.92
- 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 mm²/s (>20.5 cSt)
- Molecular weight** : Not applicable.

Section 9. Physical and chemical properties

Heat of combustion : 23.359 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 | Species | Dose | Exposure |
|-----------------------------|-----------------------|---------|--------------------------|----------|
| n-Butyl Acetate | LD50 Dermal | Rabbit | >17600 mg/kg | - |
| | LD50 Oral | Rat | 10768 mg/kg | - |
| Methyl n-Amyl Ketone | LD50 Oral | Rat | 1600 mg/kg | - |
| Ethanol | LC50 Inhalation Vapor | Rat | 124700 mg/m ³ | 4 hours |
| | LD50 Oral | Rat | 7 g/kg | - |
| Methyl Acetate | LD50 Dermal | Rabbit | >5 g/kg | - |
| | LD50 Oral | Rat | >5 g/kg | - |
| Cellulose Nitrate | LD50 Oral | Rat | >5 g/kg | - |
| Methyl Ethyl Ketone | LD50 Dermal | Rabbit | 6480 mg/kg | - |
| | LD50 Oral | Rat | 2737 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 | - |
| 2-Propanol | LD50 Dermal | Rabbit | 12800 mg/kg | - |
| | LD50 Oral | Rat | 5000 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 | - |
| Xylene, mixed isomers | LC50 Inhalation Gas. | Rat | 6700 ppm | 4 hours |
| | LD50 Oral | Rat | 4300 mg/kg | - |
| Light Aromatic Hydrocarbons | LD50 Oral | Rat | 8400 mg/kg | - |
| Ethylbenzene | LD50 Dermal | Rabbit | >5000 mg/kg | - |
| | LD50 Oral | Rat | 3500 mg/kg | - |
| trimethylbenzene | LD50 Oral | Rat | 8970 mg/kg | - |
| glyoxal | LD50 Oral | Rat | 200 mg/kg | - |

Irritation/Corrosion

Section 11. Toxicological information

| 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 | - |
| Methyl n-Amyl Ketone | Skin - Mild irritant | Rabbit | - | 24 hours 14 mg | - |
| Ethanol | Eyes - Mild irritant | Rabbit | - | 24 hours 500 mg | - |
| | Eyes - Moderate irritant | Rabbit | - | 0.066666667 minutes 100 mg | - |
| | Eyes - Moderate irritant | Rabbit | - | 100 uL | - |
| | Eyes - Severe irritant | Rabbit | - | 500 mg | - |
| | Skin - Mild irritant | Rabbit | - | 400 mg | - |
| | Skin - Moderate irritant | Rabbit | - | 24 hours 20 mg | - |
| Methyl Acetate | Eyes - Moderate irritant | Rabbit | - | 24 hours 100 mg | - |
| | Skin - Mild irritant | Rabbit | - | 24 hours 500 mg | - |
| | Skin - Moderate irritant | Rabbit | - | 24 hours 20 mg | - |
| Methyl Ethyl Ketone | Skin - Mild irritant | Rabbit | - | 24 hours 14 mg | - |
| | Skin - Moderate irritant | Rabbit | - | 24 hours 500 mg | - |
| 1-Butanol | Eyes - Severe irritant | Rabbit | - | 0.005 MI | - |
| | Eyes - Severe irritant | Rabbit | - | 24 hours 2 mg | - |
| | Skin - Moderate irritant | Rabbit | - | 24 hours 20 mg | - |
| 2-Propanol | Eyes - Moderate irritant | Rabbit | - | 10 mg | - |
| | Eyes - Moderate irritant | Rabbit | - | 24 hours 100 mg | - |
| | Eyes - Severe irritant | Rabbit | - | 100 mg | - |
| | Skin - Mild irritant | Rabbit | - | 500 mg | - |
| Xylene, mixed isomers | Eyes - Mild irritant | Rabbit | - | 87 mg | - |
| | Eyes - Severe irritant | Rabbit | - | 24 hours 5 mg | - |
| | Skin - Mild irritant | Rat | - | 8 hours 60 uL | - |
| | Skin - Moderate irritant | Rabbit | - | 100 % | - |
| | Skin - Moderate irritant | Rabbit | - | 24 hours 500 mg | - |
| Light Aromatic Hydrocarbons | Eyes - Mild irritant | Rabbit | - | 24 hours 100 uL | - |
| Ethylbenzene | Eyes - Severe irritant | Rabbit | - | 500 mg | - |
| | Skin - Mild irritant | Rabbit | - | 24 hours 15 mg | - |
| trimethylbenzene | Eyes - Mild irritant | Rabbit | - | 24 hours 500 mg | - |
| | Skin - Moderate irritant | Rabbit | - | 24 hours 500 mg | - |
| glyoxal | 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 | - |

Section 11. Toxicological information

uL

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Classification

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

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

| Name | Category | Route of exposure | Target organs |
|-----------------------------------|------------|-------------------|------------------------------|
| n-Butyl Acetate | Category 3 | - | Narcotic effects |
| Methyl n-Amyl Ketone | Category 3 | - | Narcotic effects |
| Ethanol | Category 3 | - | Narcotic effects |
| Methyl Acetate | Category 3 | - | Narcotic effects |
| Lt. Aliphatic Hydrocarbon Solvent | Category 3 | - | Narcotic effects |
| Methyl Ethyl Ketone | Category 3 | - | Respiratory tract irritation |
| 1-Butanol | Category 3 | - | Narcotic effects |
| | Category 3 | - | Respiratory tract irritation |
| 2-Propanol | Category 3 | - | Narcotic effects |
| 2-Methyl-1-propanol | Category 3 | - | Narcotic effects |
| | Category 3 | - | Respiratory tract irritation |
| Xylene, mixed isomers | Category 3 | - | Narcotic effects |
| | Category 3 | - | Respiratory tract irritation |
| Light Aromatic Hydrocarbons | Category 3 | - | Narcotic effects |
| | Category 3 | - | Respiratory tract irritation |
| Ethylbenzene | Category 3 | - | Narcotic effects |
| Heavy Aliphatic Solvent | Category 3 | - | Narcotic effects |
| glyoxal | Category 3 | - | Respiratory tract irritation |
| | Category 3 | - | Narcotic effects |

Specific target organ toxicity (repeated exposure)

Section 11. Toxicological information

| Name | Category | Route of exposure | Target organs |
|-------------------------|------------|-------------------|------------------------------|
| Methyl Ethyl Ketone | Category 2 | - | - |
| Xylene, mixed isomers | Category 2 | - | - |
| Ethylbenzene | Category 2 | - | - |
| Heavy Aliphatic Solvent | Category 1 | - | central nervous system (CNS) |
| glyoxal | Category 2 | - | - |

Aspiration hazard

| Name | Result |
|-----------------------------------|--------------------------------|
| Lt. Aliphatic Hydrocarbon Solvent | ASPIRATION HAZARD - Category 1 |
| Xylene, mixed isomers | ASPIRATION HAZARD - Category 1 |
| Light Aromatic Hydrocarbons | ASPIRATION HAZARD - Category 1 |
| Ethylbenzene | ASPIRATION HAZARD - Category 1 |
| Heavy Aliphatic Solvent | ASPIRATION HAZARD - Category 1 |
| 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 : Causes skin irritation. May cause an allergic skin reaction.

Ingestion : Can cause central nervous system (CNS) depression.

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

Skin contact : Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur

Ingestion : Adverse symptoms may include the following:
stomach pains

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

Section 11. Toxicological information

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

General : May cause damage to organs through prolonged or repeated exposure. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

| Route | ATE value |
|---------------------|----------------|
| Oral | 8322.54 mg/kg |
| Dermal | 42227.68 mg/kg |
| Inhalation (vapors) | 73.9 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 |
| | Acute LC50 18000 µg/l Fresh water | Fish - <i>Pimephales promelas</i> | 96 hours |
| Methyl n-Amyl Ketone | Acute LC50 131000 µg/l Fresh water | Fish - <i>Pimephales promelas</i> | 96 hours |
| Ethanol | 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 |
| Methyl Acetate | Acute LC50 320000 µg/l Fresh water | Fish - <i>Pimephales promelas</i> | 96 hours |
| Lt. Aliphatic Hydrocarbon Solvent | Acute LC50 >100000 ppm Fresh water | Fish - <i>Oncorhynchus mykiss</i> | 96 hours |
| Methyl Ethyl Ketone | Acute EC50 >500000 µg/l Marine water | Algae - <i>Skeletonema costatum</i> | 96 hours |
| | Acute EC50 5091000 µg/l Fresh water | Daphnia - <i>Daphnia magna</i> - Larvae | 48 hours |
| | Acute LC50 3220000 µg/l Fresh water | Fish - <i>Pimephales promelas</i> | 96 hours |
| 1-Butanol | Acute EC50 1983 mg/l Fresh water | Daphnia - <i>Daphnia magna</i> | 48 hours |
| | Acute LC50 1730000 µg/l Fresh water | Fish - <i>Pimephales promelas</i> | 96 hours |
| 2-Propanol | Acute EC50 7550 mg/l Fresh water | Daphnia - <i>Daphnia magna</i> - Neonate | 48 hours |

Section 12. Ecological information

| | | | |
|-----------------------|---|--|--|
| 2-Methyl-1-propanol | Acute LC50 1400000 µg/l Marine water Acute LC50 4200 mg/l Fresh water Acute LC50 600 mg/l Marine water Acute LC50 1030000 µg/l Fresh water | Crustaceans - <i>Crangon crangon</i> Fish - <i>Rasbora heteromorpha</i> Crustaceans - <i>Artemia salina</i> Daphnia - <i>Daphnia magna</i> - Neonate | 48 hours 96 hours 48 hours 48 hours |
| Xylene, mixed isomers | Acute LC50 1330000 µg/l Fresh water Chronic NOEC 4 mg/l Fresh water Acute LC50 8500 µg/l Marine water | Fish - <i>Oncorhynchus mykiss</i> Daphnia - <i>Daphnia magna</i> Crustaceans - <i>Palaemonetes pugio</i> | 96 hours 21 days 48 hours |
| Ethylbenzene | Acute LC50 13400 µg/l Fresh water Acute EC50 4900 µg/l Marine water Acute EC50 7700 µg/l Marine water Acute EC50 6.53 mg/l Marine water | Fish - <i>Pimephales promelas</i> Algae - <i>Skeletonema costatum</i> Algae - <i>Skeletonema costatum</i> Crustaceans - <i>Artemia sp.</i> - Nauplii | 96 hours 72 hours 96 hours 48 hours |
| trimethylbenzene | Acute EC50 2.93 mg/l Fresh water Acute LC50 4200 µg/l Fresh water Acute LC50 5600 µg/l Marine water | Daphnia - <i>Daphnia magna</i> - Neonate Fish - <i>Oncorhynchus mykiss</i> Crustaceans - <i>Palaemonetes pugio</i> | 48 hours 96 hours 48 hours |
| glyoxal | 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 |
| Methyl n-Amyl Ketone | - | - | Readily |
| Ethanol | - | - | Readily |
| Methyl Ethyl Ketone | - | - | Readily |
| 1-Butanol | - | - | Readily |
| 2-Propanol | - | - | Readily |
| 2-Methyl-1-propanol | - | - | Readily |
| Xylene, mixed isomers | - | - | Readily |
| Light Aromatic Hydrocarbons | - | - | Readily |
| Ethylbenzene | - | - | Readily |

Bioaccumulative potential

| Product/ingredient name | LogP _{ow} | BCF | Potential |
|-----------------------------------|--------------------|-------------|-----------|
| Lt. Aliphatic Hydrocarbon Solvent | - | 10 to 2500 | High |
| Xylene, mixed isomers | - | 8.1 to 25.9 | Low |
| Light Aromatic Hydrocarbons | - | 10 to 2500 | High |
| Heavy Aliphatic Solvent | - | 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

Not listed.

International lists

Australia inventory (AIIIC): Not determined.
China inventory (IECSC): Not determined.
Japan inventory (CSCL): Not determined.
Japan inventory (ISHL): Not determined.
Korea inventory (KECI): Not determined.
New Zealand Inventory of Chemicals (NZIoC): Not determined.
Philippines inventory (PICCS): Not determined.
Taiwan Chemical Substances Inventory (TCSI): Not determined.
Thailand inventory: Not determined.
Turkey inventory: Not determined.
Vietnam inventory: Not determined.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

| | | |
|------------------|---|---|
| Health | * | 3 |
| Flammability | | 3 |
| Physical hazards | | 0 |
| | | |

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

Procedure used to derive the classification

Section 16. Other information

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

History

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Version : 23

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.

| | | | |
|---|--|---------------------|-------|
| Date of issue/Date of revision : 5/16/2024 | Date of previous issue : 4/19/2024 | Version : 23 | 23/23 |
| NM5800035 | Bernyl™ FF Hi-Bild Pre-Catalyzed Lacquer 40 Gloss | SHW-85-NA-GHS-CA | |