

# SAFETY DATA SHEET

C14514B

## Section 1. Identification

**Product name** : KRYSTAL® Hi Solids Catalyzed Varnish  
Satin

**Product code** : C14514B

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

**Product type** : Liquid.

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

Paint or paint related material.

**Manufacturer** : M. L. CAMPBELL  
101 W. Prospect Avenue  
Cleveland, OH 44115

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

**Product Information Telephone Number** : (800) 364-1359

**Regulatory Information Telephone Number** : (216) 566-2902

**Transportation Emergency Telephone Number** : (800) 424-9300

## Section 2. Hazards identification

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

**Classification of the substance or mixture** : FLAMMABLE LIQUIDS - Category 2  
SKIN CORROSION/IRRITATION - Category 2  
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1  
CARCINOGENICITY - Category 1A  
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3  
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3  
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2  
Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity: 11.9% (oral), 22.8% (dermal), 24.8% (inhalation)

### GHS label elements

**Hazard pictograms**



**Signal word** : Danger

## Section 2. Hazards identification

**Hazard statements** : Highly flammable liquid and vapor.  
 Causes skin irritation.  
 Causes serious eye damage.  
 May cause respiratory irritation.  
 May cause drowsiness or dizziness.  
 May cause cancer.  
 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. Wash thoroughly after handling.

**Response** : IF exposed or concerned: Get medical advice or attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. IF ON SKIN: Wash with plenty of water. If skin irritation 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. Contains Formaldehyde - a potential cancer hazard. This product must be mixed with other components before use. Before opening the packages, READ AND FOLLOW WARNING LABELS ON ALL COMPONENTS.

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

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

## Section 3. Composition/information on ingredients

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

**CAS number/other identifiers**

| Ingredient name                        | % by weight | CAS number |
|--|-------------|------------|
| n-Butyl Acetate                        | ≥25 - ≤50   | 123-86-4   |
| Ethanol                                | ≤10         | 64-17-5    |
| 1-Butanol                              | ≤9.1        | 71-36-3    |
| Isobutylated Urea-Formaldehyde Polymer | ≤5          | 68002-18-6 |
| Methyl n-Amyl Ketone                   | ≤5          | 110-43-0   |
| 1-Methoxy-2-propanol                   | ≤3          | 107-98-2   |
| Ethyl Acetate                          | ≤3          | 141-78-6   |
| 2-Methyl-1-propanol                    | ≤3          | 78-83-1    |

## Section 3. Composition/information on ingredients

|                               |      |             |
|-------------------------------|------|-------------|
| Xylene, mixed isomers         | ≤2.9 | 1330-20-7   |
| Cellulose Nitrate             | ≤3   | 9004-70-0   |
| Dimethyl Carbonate            | ≤3   | 616-38-6    |
| Amorphous Precipitated Silica | ≤3   | 112926-00-8 |
| 2-Propanol                    | ≤1.7 | 67-63-0     |
| Ethylbenzene                  | ≤0.3 | 100-41-4    |
| Heavy Aliphatic Solvent       | ≤0.3 | 64742-82-1  |
| Light Aromatic Hydrocarbons   | ≤0.3 | 64742-95-6  |
| Formaldehyde (max.)           | <0.1 | 50-00-0     |

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

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

#### Potential acute health effects

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

#### Over-exposure signs/symptoms

## Section 4. First aid measures

- Eye contact** : Adverse symptoms may include the following:  
pain  
watering  
redness
- Inhalation** : Adverse symptoms may include the following:  
respiratory tract irritation  
coughing  
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, CO<sub>2</sub>, water spray (fog) or foam.
- Unsuitable extinguishing media** : Do not use water jet.

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

**Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide  
nitrogen oxides  
metal oxide/oxides

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

## Section 5. Fire-fighting measures

**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.

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

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

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

**Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

### Methods and materials for containment and cleaning up

**Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. 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** : Contains a formaldehyde-based resin which, under certain conditions of use, may release formaldehyde. Put on appropriate personal protective equipment (see Section 8). 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.

## Section 7. Handling and storage

**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               | <b>NIOSH REL (United States, 10/2020).</b><br>TWA: 150 ppm 10 hours.<br>TWA: 710 mg/m <sup>3</sup> 10 hours.<br>STEL: 200 ppm 15 minutes.<br>STEL: 950 mg/m <sup>3</sup> 15 minutes.<br><b>OSHA PEL (United States, 5/2018).</b><br>TWA: 150 ppm 8 hours.<br>TWA: 710 mg/m <sup>3</sup> 8 hours.<br><b>ACGIH TLV (United States, 1/2021).</b><br>STEL: 150 ppm 15 minutes.<br>TWA: 50 ppm 8 hours. |
| Ethanol  | 64-17-5                | <b>ACGIH TLV (United States, 1/2021).</b><br>STEL: 1000 ppm 15 minutes.<br><b>NIOSH REL (United States, 10/2020).</b><br>TWA: 1000 ppm 10 hours.<br>TWA: 1900 mg/m <sup>3</sup> 10 hours.<br><b>OSHA PEL (United States, 5/2018).</b><br>TWA: 1000 ppm 8 hours.<br>TWA: 1900 mg/m <sup>3</sup> 8 hours.  |
| 1-Butanol  | 71-36-3                | <b>ACGIH TLV (United States, 1/2021).</b><br>TWA: 20 ppm 8 hours.<br><b>NIOSH REL (United States, 10/2020).</b><br><b>Absorbed through skin.</b><br>CEIL: 50 ppm<br>CEIL: 150 mg/m <sup>3</sup><br><b>OSHA PEL (United States, 5/2018).</b><br>TWA: 100 ppm 8 hours.<br>TWA: 300 mg/m <sup>3</sup> 8 hours.  |
| Isobutylated Urea-Formaldehyde Polymer<br>Methyl n-Amyl Ketone | 68002-18-6<br>110-43-0 | None.<br><b>ACGIH TLV (United States, 1/2021).</b><br>TWA: 50 ppm 8 hours.<br>TWA: 233 mg/m <sup>3</sup> 8 hours.<br><b>NIOSH REL (United States, 10/2020).</b><br>TWA: 100 ppm 10 hours.<br>TWA: 465 mg/m <sup>3</sup> 10 hours.<br><b>OSHA PEL (United States, 5/2018).</b><br>TWA: 100 ppm 8 hours.<br>TWA: 465 mg/m <sup>3</sup> 8 hours.  |
| 1-Methoxy-2-propanol   | 107-98-2               | <b>ACGIH TLV (United States, 1/2021).</b><br>TWA: 50 ppm 8 hours.<br>TWA: 184 mg/m <sup>3</sup> 8 hours.<br>STEL: 100 ppm 15 minutes.  |

## Section 8. Exposure controls/personal protection

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|--|--------------------------------------|--|
| Ethyl Acetate  | 141-78-6                             | <p>STEL: 369 mg/m<sup>3</sup> 15 minutes.<br/> <b>NIOSH REL (United States, 10/2020).</b><br/>           TWA: 100 ppm 10 hours.<br/>           TWA: 360 mg/m<sup>3</sup> 10 hours.<br/>           STEL: 150 ppm 15 minutes.<br/>           STEL: 540 mg/m<sup>3</sup> 15 minutes.<br/> <b>ACGIH TLV (United States, 1/2021).</b><br/>           TWA: 400 ppm 8 hours.<br/>           TWA: 1440 mg/m<sup>3</sup> 8 hours.<br/> <b>NIOSH REL (United States, 10/2020).</b><br/>           TWA: 400 ppm 10 hours.<br/>           TWA: 1400 mg/m<sup>3</sup> 10 hours.<br/> <b>OSHA PEL (United States, 5/2018).</b><br/>           TWA: 400 ppm 8 hours.<br/>           TWA: 1400 mg/m<sup>3</sup> 8 hours.</p> |
| 2-Methyl-1-propanol  | 78-83-1                              | <p><b>ACGIH TLV (United States, 1/2021).</b><br/>           TWA: 50 ppm 8 hours.<br/>           TWA: 152 mg/m<sup>3</sup> 8 hours.<br/> <b>NIOSH REL (United States, 10/2020).</b><br/>           TWA: 50 ppm 10 hours.<br/>           TWA: 150 mg/m<sup>3</sup> 10 hours.<br/> <b>OSHA PEL (United States, 5/2018).</b><br/>           TWA: 100 ppm 8 hours.<br/>           TWA: 300 mg/m<sup>3</sup> 8 hours.</p>  |
| Xylene, mixed isomers  | 1330-20-7                            | <p><b>ACGIH TLV (United States, 1/2021).</b><br/>           TWA: 100 ppm 8 hours.<br/>           TWA: 434 mg/m<sup>3</sup> 8 hours.<br/>           STEL: 150 ppm 15 minutes.<br/>           STEL: 651 mg/m<sup>3</sup> 15 minutes.<br/> <b>OSHA PEL (United States, 5/2018).</b><br/>           TWA: 100 ppm 8 hours.<br/>           TWA: 435 mg/m<sup>3</sup> 8 hours.</p>  |
| Cellulose Nitrate<br>Dimethyl Carbonate<br>Amorphous Precipitated Silica | 9004-70-0<br>616-38-6<br>112926-00-8 | None.<br>None.   |
| 2-Propanol   | 67-63-0                              | <p><b>NIOSH REL (United States, 10/2020).</b><br/>           TWA: 6 mg/m<sup>3</sup> 10 hours.<br/> <b>ACGIH TLV (United States, 1/2021).</b><br/>           TWA: 200 ppm 8 hours.<br/>           STEL: 400 ppm 15 minutes.<br/> <b>NIOSH REL (United States, 10/2020).</b><br/>           TWA: 400 ppm 10 hours.<br/>           TWA: 980 mg/m<sup>3</sup> 10 hours.<br/>           STEL: 500 ppm 15 minutes.<br/>           STEL: 1225 mg/m<sup>3</sup> 15 minutes.<br/> <b>OSHA PEL (United States, 5/2018).</b><br/>           TWA: 400 ppm 8 hours.<br/>           TWA: 980 mg/m<sup>3</sup> 8 hours.</p>  |
| Ethylbenzene   | 100-41-4                             | <p><b>ACGIH TLV (United States, 1/2021).</b><br/>           TWA: 20 ppm 8 hours.<br/> <b>NIOSH REL (United States, 10/2020).</b><br/>           TWA: 100 ppm 10 hours.<br/>           TWA: 435 mg/m<sup>3</sup> 10 hours.<br/>           STEL: 125 ppm 15 minutes.<br/>           STEL: 545 mg/m<sup>3</sup> 15 minutes.<br/> <b>OSHA PEL (United States, 5/2018).</b><br/>           TWA: 100 ppm 8 hours.<br/>           TWA: 435 mg/m<sup>3</sup> 8 hours.</p>  |

## Section 8. Exposure controls/personal protection

|   |                                     |   |
|---|-------------------------------------|---|
| Heavy Aliphatic Solvent<br>Light Aromatic Hydrocarbons<br>Formaldehyde (max.) | 64742-82-1<br>64742-95-6<br>50-00-0 | None.<br>None.<br><b>OSHA PEL Z2 (United States, 2/2013).</b><br>TWA: 0.75 ppm 8 hours.<br>STEL: 2 ppm 15 minutes.<br><b>NIOSH REL (United States, 10/2020).</b><br>TWA: 0.016 ppm 10 hours.<br>CEIL: 0.1 ppm 15 minutes.<br><b>OSHA PEL (United States, 5/2018).</b><br>TWA: 0.75 ppm 8 hours.<br>STEL: 2 ppm 15 minutes.<br><b>ACGIH TLV (United States, 1/2021). Skin sensitizer. Inhalation sensitizer.</b><br>STEL: 0.3 ppm 15 minutes.<br>TWA: 0.1 ppm 8 hours. |
|---|-------------------------------------|---|

**Occupational exposure limits (Canada)**

| Ingredient name      | CAS #    | Exposure limits  |
|----------------------|----------|--|
| n-butyl acetate      | 123-86-4 | <b>CA Alberta Provincial (Canada, 6/2018).</b><br>15 min OEL: 200 ppm 15 minutes.<br>15 min OEL: 950 mg/m <sup>3</sup> 15 minutes.<br>8 hrs OEL: 150 ppm 8 hours.<br>8 hrs OEL: 713 mg/m <sup>3</sup> 8 hours.<br><b>CA Saskatchewan Provincial (Canada, 7/2013).</b><br>STEL: 200 ppm 15 minutes.<br>TWA: 150 ppm 8 hours.<br><b>CA Ontario Provincial (Canada, 6/2019).</b><br>STEL: 150 ppm 15 minutes.<br>TWA: 50 ppm 8 hours.<br><b>CA British Columbia Provincial (Canada, 6/2021).</b><br>STEL: 150 ppm 15 minutes.<br>TWA: 50 ppm 8 hours.<br><b>CA Quebec Provincial (Canada, 6/2021).</b><br>STEV: 150 ppm 15 minutes.<br>TWAEV: 50 ppm 8 hours. |
| Ethyl alcohol        | 64-17-5  | <b>CA Alberta Provincial (Canada, 6/2018).</b><br>8 hrs OEL: 1000 ppm 8 hours.<br>8 hrs OEL: 1880 mg/m <sup>3</sup> 8 hours.<br><b>CA British Columbia Provincial (Canada, 6/2021).</b><br>STEL: 1000 ppm 15 minutes.<br><b>CA Ontario Provincial (Canada, 6/2019).</b><br>STEL: 1000 ppm 15 minutes.<br><b>CA Saskatchewan Provincial (Canada, 7/2013).</b><br>STEL: 1250 ppm 15 minutes.<br>TWA: 1000 ppm 8 hours.<br><b>CA Quebec Provincial (Canada, 6/2021).</b><br>STEV: 1000 ppm 15 minutes.  |
| Normal butyl alcohol | 71-36-3  | <b>CA Alberta Provincial (Canada, 6/2018).</b><br>8 hrs OEL: 60 mg/m <sup>3</sup> 8 hours.<br>8 hrs OEL: 20 ppm 8 hours.<br><b>CA British Columbia Provincial (Canada, 6/2021).</b>  |

## Section 8. Exposure controls/personal protection

|                                   |          |  |
|-----------------------------------|----------|--|
| Methyl n-amyl ketone              | 110-43-0 | <p>TWA: 15 ppm 8 hours.<br/>C: 30 ppm<br/><b>CA Ontario Provincial (Canada, 6/2019).</b><br/>TWA: 20 ppm 8 hours.<br/><b>CA Quebec Provincial (Canada, 6/2021).</b><br/><b>Absorbed through skin.</b><br/>STEV: 50 ppm 15 minutes.<br/>STEV: 152 mg/m<sup>3</sup> 15 minutes.<br/><b>CA Saskatchewan Provincial (Canada, 7/2013).</b><br/>STEL: 30 ppm 15 minutes.<br/>TWA: 20 ppm 8 hours.<br/><b>CA Alberta Provincial (Canada, 6/2018).</b><br/>8 hrs OEL: 233 mg/m<sup>3</sup> 8 hours.<br/>8 hrs OEL: 50 ppm 8 hours.<br/><b>CA British Columbia Provincial (Canada, 6/2021).</b><br/>TWA: 50 ppm 8 hours.<br/><b>CA Ontario Provincial (Canada, 6/2019).</b><br/>TWA: 25 ppm 8 hours.<br/>TWA: 115 mg/m<sup>3</sup> 8 hours.<br/><b>CA Quebec Provincial (Canada, 6/2021).</b><br/>TWAEV: 50 ppm 8 hours.<br/>TWAEV: 233 mg/m<sup>3</sup> 8 hours.<br/><b>CA Saskatchewan Provincial (Canada, 7/2013).</b><br/>STEL: 60 ppm 15 minutes.<br/>TWA: 50 ppm 8 hours.</p> |
| Propylene glycol monomethyl ether | 107-98-2 | <p><b>CA Alberta Provincial (Canada, 6/2018).</b><br/>8 hrs OEL: 100 ppm 8 hours.<br/>15 min OEL: 553 mg/m<sup>3</sup> 15 minutes.<br/>8 hrs OEL: 369 mg/m<sup>3</sup> 8 hours.<br/>15 min OEL: 150 ppm 15 minutes.<br/><b>CA British Columbia Provincial (Canada, 6/2021).</b><br/>STEL: 100 ppm 15 minutes.<br/>TWA: 50 ppm 8 hours.<br/><b>CA Ontario Provincial (Canada, 6/2019).</b><br/>TWA: 50 ppm 8 hours.<br/>STEL: 100 ppm 15 minutes.<br/><b>CA Quebec Provincial (Canada, 6/2021).</b><br/>TWAEV: 100 ppm 8 hours.<br/>TWAEV: 369 mg/m<sup>3</sup> 8 hours.<br/>STEV: 150 ppm 15 minutes.<br/>STEV: 553 mg/m<sup>3</sup> 15 minutes.<br/><b>CA Saskatchewan Provincial (Canada, 7/2013).</b><br/>STEL: 150 ppm 15 minutes.<br/>TWA: 100 ppm 8 hours.</p>   |
| Isobutyl alcohol                  | 78-83-1  | <p><b>CA Alberta Provincial (Canada, 6/2018).</b><br/>8 hrs OEL: 50 ppm 8 hours.<br/>8 hrs OEL: 152 mg/m<sup>3</sup> 8 hours.<br/><b>CA British Columbia Provincial (Canada, 6/2021).</b><br/>TWA: 50 ppm 8 hours.<br/><b>CA Ontario Provincial (Canada, 6/2019).</b><br/>TWA: 50 ppm 8 hours.</p>   |

## Section 8. Exposure controls/personal protection

|                   |           |  |
|-------------------|-----------|--|
| Xylene            | 1330-20-7 | <p><b>CA Quebec Provincial (Canada, 6/2021).</b><br/>           TWAEV: 50 ppm 8 hours.<br/>           TWAEV: 152 mg/m<sup>3</sup> 8 hours.</p> <p><b>CA Saskatchewan Provincial (Canada, 7/2013).</b><br/>           STEL: 60 ppm 15 minutes.<br/>           TWA: 50 ppm 8 hours.</p> <p><b>CA Alberta Provincial (Canada, 6/2018).</b><br/>           8 hrs OEL: 100 ppm 8 hours.<br/>           15 min OEL: 651 mg/m<sup>3</sup> 15 minutes.<br/>           15 min OEL: 150 ppm 15 minutes.<br/>           8 hrs OEL: 434 mg/m<sup>3</sup> 8 hours.</p> <p><b>CA British Columbia Provincial (Canada, 6/2021).</b><br/>           TWA: 100 ppm 8 hours.<br/>           STEL: 150 ppm 15 minutes.</p> <p><b>CA Quebec Provincial (Canada, 6/2021).</b><br/>           TWAEV: 100 ppm 8 hours.<br/>           TWAEV: 434 mg/m<sup>3</sup> 8 hours.<br/>           STEV: 150 ppm 15 minutes.<br/>           STEV: 651 mg/m<sup>3</sup> 15 minutes.</p> <p><b>CA Ontario Provincial (Canada, 6/2019).</b><br/>           STEL: 150 ppm 15 minutes.<br/>           TWA: 100 ppm 8 hours.</p> <p><b>CA Saskatchewan Provincial (Canada, 7/2013).</b><br/>           STEL: 150 ppm 15 minutes.<br/>           TWA: 100 ppm 8 hours.</p> |
| Isopropyl alcohol | 67-63-0   | <p><b>CA Alberta Provincial (Canada, 6/2018).</b><br/>           15 min OEL: 984 mg/m<sup>3</sup> 15 minutes.<br/>           8 hrs OEL: 200 ppm 8 hours.<br/>           15 min OEL: 400 ppm 15 minutes.<br/>           8 hrs OEL: 492 mg/m<sup>3</sup> 8 hours.</p> <p><b>CA British Columbia Provincial (Canada, 6/2021).</b><br/>           TWA: 200 ppm 8 hours.<br/>           STEL: 400 ppm 15 minutes.</p> <p><b>CA Ontario Provincial (Canada, 6/2019).</b><br/>           TWA: 200 ppm 8 hours.<br/>           STEL: 400 ppm 15 minutes.</p> <p><b>CA Quebec Provincial (Canada, 6/2021).</b><br/>           TWAEV: 400 ppm 8 hours.<br/>           TWAEV: 983 mg/m<sup>3</sup> 8 hours.<br/>           STEV: 500 ppm 15 minutes.<br/>           STEV: 1230 mg/m<sup>3</sup> 15 minutes.</p> <p><b>CA Saskatchewan Provincial (Canada, 7/2013).</b><br/>           STEL: 400 ppm 15 minutes.<br/>           TWA: 200 ppm 8 hours.</p>  |
| Ethylbenzene      | 100-41-4  | <p><b>CA Alberta Provincial (Canada, 6/2018).</b><br/>           8 hrs OEL: 100 ppm 8 hours.<br/>           8 hrs OEL: 434 mg/m<sup>3</sup> 8 hours.<br/>           15 min OEL: 543 mg/m<sup>3</sup> 15 minutes.<br/>           15 min OEL: 125 ppm 15 minutes.</p> <p><b>CA British Columbia Provincial (Canada, 6/2021).</b><br/>           TWA: 20 ppm 8 hours.</p>   |

## Section 8. Exposure controls/personal protection

|  |  |  |
|--|--|--|
|  |  | <p><b>CA Ontario Provincial (Canada, 6/2019).</b><br/>TWA: 20 ppm 8 hours.</p> <p><b>CA Quebec Provincial (Canada, 6/2021).</b><br/>TWA<sub>EV</sub>: 20 ppm 8 hours.</p> <p><b>CA Saskatchewan Provincial (Canada, 7/2013).</b><br/>STEL: 125 ppm 15 minutes.<br/>TWA: 100 ppm 8 hours.</p> |
|--|--|--|

**Occupational exposure limits (Mexico)**

|                       | <b>CAS #</b> | <b>Exposure limits</b>  |
|-----------------------|--------------|---|
| n-Butyl Acetate       | 123-86-4     | <b>NOM-010-STPS-2014 (Mexico, 4/2016).</b><br>TWA: 150 ppm 8 hours.<br>STEL: 200 ppm 15 minutes.    |
| ethanol               | 64-17-5      | <b>NOM-010-STPS-2014 (Mexico, 4/2016).</b><br>STEL: 1000 ppm 15 minutes.                            |
| 1-Butanol             | 71-36-3      | <b>NOM-010-STPS-2014 (Mexico, 4/2016).</b><br><b>Absorbed through skin.</b><br>TWA: 20 ppm 8 hours. |
| Methyl n-Amyl Ketone  | 110-43-0     | <b>NOM-010-STPS-2014 (Mexico, 4/2016).</b><br>TWA: 50 ppm 8 hours.                                  |
| 1-Methoxy-2-propanol  | 107-98-2     | <b>NOM-010-STPS-2014 (Mexico, 4/2016).</b><br>STEL: 150 ppm 15 minutes.<br>TWA: 100 ppm 8 hours.    |
| Ethyl Acetate         | 141-78-6     | <b>NOM-010-STPS-2014 (Mexico, 4/2016).</b><br>TWA: 400 ppm 8 hours.                                 |
| 2-methylpropan-1-ol   | 78-83-1      | <b>NOM-010-STPS-2014 (Mexico, 4/2016).</b><br>TWA: 50 ppm 8 hours.                                  |
| Xylene, mixed isomers | 1330-20-7    | <b>NOM-010-STPS-2014 (Mexico, 4/2016).</b><br>STEL: 150 ppm 15 minutes.<br>TWA: 100 ppm 8 hours.    |
| 2-Propanol            | 67-63-0      | <b>NOM-010-STPS-2014 (Mexico, 4/2016).</b><br>TWA: 200 ppm 8 hours.<br>STEL: 400 ppm 15 minutes.    |

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

**Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

**Individual protection measures**

**Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. 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.

## Section 8. Exposure controls/personal protection

### 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

|  |  |
|--|--|
| <b>Physical state</b>  | : Liquid.  |
| <b>Color</b>   | : Not available.   |
| <b>Odor</b>  | : Not available.   |
| <b>Odor threshold</b>  | : Not available.   |
| <b>pH</b>  | : Not applicable.  |
| <b>Melting point/freezing point</b>                            | : Not available.   |
| <b>Boiling point, initial boiling point, and boiling range</b> | : 70°C (158°F)   |
| <b>Flash point</b>   | : Closed cup: 16°C (60.8°F) [Pensky-Martens Closed Cup]          |
| <b>Evaporation rate</b>  | : 3.91 (butyl acetate = 1)                                       |
| <b>Flammability</b>  | : Not available.   |
| <b>Lower and upper explosion limit/flammability limit</b>      | : Lower: 1%<br>Upper: 19%  |
| <b>Vapor pressure</b>  | : 11.5 kPa (86 mm Hg)  |
| <b>Relative vapor density</b>                                  | : 1.5 [Air = 1]  |
| <b>Relative density</b>  | : 0.97   |
| <b>Solubility</b>  | : Not available.   |
| <b>Partition coefficient: n-octanol/water</b>                  | : Not applicable.  |
| <b>Auto-ignition temperature</b>                               | : Not available.   |
| <b>Decomposition temperature</b>                               | : Not available.   |
| <b>Viscosity</b>   | : Kinematic (40°C (104°F)): >20.5 mm <sup>2</sup> /s (>20.5 cSt) |
| <b>Molecular weight</b>  | : Not applicable.  |
| <b>Aerosol product</b>   |  |
| <b>Heat of combustion</b>                                      | : 16.652 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              | -        |
| Ethanol                                | LC50 Inhalation Vapor | Rat     | 124700 mg/m <sup>3</sup> | 4 hours  |
|  | LD50 Oral             | Rat     | 7 g/kg                   | -        |
| 1-Butanol                              | LC50 Inhalation Vapor | Rat     | 24000 mg/m <sup>3</sup>  | 4 hours  |
|  | LD50 Dermal           | Rabbit  | 3400 mg/kg               | -        |
|  | LD50 Oral             | Rat     | 790 mg/kg                | -        |
| Isobutylated Urea-Formaldehyde Polymer | LD50 Dermal           | Rabbit  | >5 g/kg                  | -        |
|  | LD50 Oral             | Rat     | >5 g/kg                  | -        |
| Methyl n-Amyl Ketone                   | LD50 Oral             | Rat     | 1600 mg/kg               | -        |
|  | LD50 Dermal           | Rabbit  | 13 g/kg                  | -        |
| 1-Methoxy-2-propanol                   | LD50 Oral             | Rat     | 6600 mg/kg               | -        |
|  | LD50 Oral             | Rat     | 5620 mg/kg               | -        |
| Ethyl Acetate                          | LD50 Oral             | Rat     | 5620 mg/kg               | -        |
|  | LC50 Inhalation Vapor | Rat     | 19200 mg/m <sup>3</sup>  | 4 hours  |
|  | LD50 Dermal           | Rabbit  | 3400 mg/kg               | -        |
| 2-Methyl-1-propanol                    | LD50 Oral             | Rat     | 2460 mg/kg               | -        |
|  | LD50 Oral             | Rat     | 2460 mg/kg               | -        |
|  | LC50 Inhalation Gas.  | Rat     | 6700 ppm                 | 4 hours  |
| Xylene, mixed isomers                  | LD50 Oral             | Rat     | 4300 mg/kg               | -        |
|  | LD50 Oral             | Rat     | >5 g/kg                  | -        |
| Cellulose Nitrate                      | LD50 Dermal           | Rabbit  | >5 g/kg                  | -        |
|  | LD50 Oral             | Rat     | 13 g/kg                  | -        |
| Dimethyl Carbonate                     | LD50 Dermal           | Rabbit  | 12800 mg/kg              | -        |
|  | LD50 Oral             | Rat     | 5000 mg/kg               | -        |
| 2-Propanol                             | LD50 Dermal           | Rabbit  | >5000 mg/kg              | -        |
|  | LD50 Oral             | Rat     | 3500 mg/kg               | -        |
| Ethylbenzene                           | LD50 Dermal           | Rabbit  | 8400 mg/kg               | -        |
|  | LD50 Oral             | Rat     | 8400 mg/kg               | -        |
| Light Aromatic Hydrocarbons            | LD50 Oral             | Rat     | 250 ppm                  | 4 hours  |
|  | LC50 Inhalation Gas.  | Rat     | 250 ppm                  | 4 hours  |
|  | LD50 Dermal           | Rabbit  | 270 mg/kg                | -        |
| Formaldehyde (max.)                    | LD50 Dermal           | Rabbit  | 270 mg/kg                | -        |
|  | LD50 Oral             | Rat     | 100 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            | -           |
| 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             | -           |
| 1-Butanol                                  | Eyes - Severe irritant                             | Rabbit           | -      | 24 hours 2 mg              | -           |
|  | Eyes - Severe irritant<br>Skin - Moderate irritant | Rabbit<br>Rabbit | -<br>- | 0.005 MI<br>24 hours 20 mg | -<br>-      |
| Isobutylated Urea-<br>Formaldehyde Polymer | Eyes - Severe irritant                             | Rabbit           | -      | 24 hours 100 uL            | -           |
|  | Skin - Mild irritant                               | Rabbit           | -      | 24 hours 14 mg             | -           |
| 1-Methoxy-2-propanol                       | Eyes - Mild irritant                               | Rabbit           | -      | 24 hours 500 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           | -      | 24 hours 500 mg            | -           |
| 2-Propanol                                 | Skin - Moderate irritant                           | Rabbit           | -      | 100 %                      | -           |
|  | Eyes - Moderate irritant                           | Rabbit           | -      | 24 hours 100 mg            | -           |
|  | Eyes - Moderate irritant                           | Rabbit           | -      | 10 mg                      | -           |
|  | Eyes - Severe irritant                             | Rabbit           | -      | 100 mg                     | -           |
| Ethylbenzene                               | Skin - Mild irritant                               | Rabbit           | -      | 500 mg                     | -           |
|  | Eyes - Severe irritant                             | Rabbit           | -      | 500 mg                     | -           |
|  | Skin - Mild irritant                               | Rabbit           | -      | 24 hours 15 mg             | -           |
| Light Aromatic Hydrocarbons                | Eyes - Mild irritant                               | Rabbit           | -      | 24 hours 100 uL            | -           |
| Formaldehyde (max.)                        | Eyes - Mild irritant                               | Human            | -      | 6 minutes 1 ppm            | -           |
|  | Eyes - Severe irritant                             | Rabbit           | -      | 24 hours 750 ug            | -           |
|  | Eyes - Severe irritant                             | Rabbit           | -      | 750 ug                     | -           |
|  | Skin - Mild irritant                               | Human            | -      | 72 hours 150 ug l          | -           |
|  | Skin - Severe irritant                             | Human            | -      | 0.01 %                     | -           |
|  | Skin - Mild irritant                               | Rabbit           | -      | 540 mg                     | -           |
|  | Skin - Moderate irritant                           | Rabbit           | -      | 24 hours 50 mg             | -           |
|  | Skin - Severe irritant                             | Rabbit           | -      | 24 hours 2 mg              | -           |
|  | Skin - Severe irritant                             | Rabbit           | -      | 0.8 %                      | -           |

### Sensitization

|                                       |   |                               |            |                         |      |       |
|---------------------------------------|---|-------------------------------|------------|-------------------------|------|-------|
| <b>Date of issue/Date of revision</b> | : 6/19/2022                                   | <b>Date of previous issue</b> | : 9/7/2021 | <b>Version</b>          | : 16 | 14/22 |
| C14514B                               | KRYSTAL® Hi Solids Catalyzed Varnish<br>Satin |                               |            | <b>SHW-85-NA-GHS-US</b> |      |       |

# Section 11. Toxicological information

Not available.

## Mutagenicity

Not available.

## Carcinogenicity

Not available.

## Classification

| Product/ingredient name       | OSHA | IARC | NTP                             |
|-------------------------------|------|------|---------------------------------|
| Ethanol                       | -    | 1    | -                               |
| Xylene, mixed isomers         | -    | 3    | -                               |
| Amorphous Precipitated Silica | -    | 3    | -                               |
| 2-Propanol                    | -    | 3    | -                               |
| Ethylbenzene                  | -    | 2B   | -                               |
| Formaldehyde (max.)           | +    | 1    | Known to be a human carcinogen. |

## 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             |
| Ethanol                     | Category 3 | -                 | Respiratory tract irritation |
| 1-Butanol                   | Category 3 | -                 | Narcotic effects             |
|                             | Category 3 | -                 | Respiratory tract irritation |
| Methyl n-Amyl Ketone        | Category 3 | -                 | Narcotic effects             |
|                             | Category 3 | -                 | Respiratory tract irritation |
| 1-Methoxy-2-propanol        | Category 3 | -                 | Narcotic effects             |
|                             | Category 3 | -                 | Respiratory tract irritation |
| Ethyl Acetate               | Category 3 | -                 | Narcotic effects             |
| 2-Methyl-1-propanol         | Category 3 | -                 | Respiratory tract irritation |
| Xylene, mixed isomers       | Category 3 | -                 | Narcotic effects             |
|                             | Category 3 | -                 | Respiratory tract irritation |
| 2-Propanol                  | Category 3 | -                 | Narcotic effects             |
| Ethylbenzene                | Category 3 | -                 | Respiratory tract irritation |
| Heavy Aliphatic Solvent     | Category 3 | -                 | Narcotic effects             |
|                             | Category 3 | -                 | Respiratory tract irritation |
| Light Aromatic Hydrocarbons | Category 3 | -                 | Narcotic effects             |
|                             | Category 3 | -                 | Respiratory tract irritation |
| Formaldehyde (max.)         | Category 3 | -                 | Narcotic effects             |
|                             | Category 3 | -                 | Respiratory tract            |

# Section 11. Toxicological information

|  |            |  |                                |
|--|------------|--|--------------------------------|
|  | Category 3 |  | irritation<br>Narcotic effects |
|--|------------|--|--------------------------------|

**Specific target organ toxicity (repeated exposure)**

| Name                        | Category   | Route of exposure | Target organs                |
|-----------------------------|------------|-------------------|------------------------------|
| Ethanol                     | Category 2 | -                 | -                            |
| 1-Butanol                   | Category 2 | -                 | -                            |
| Methyl n-Amyl Ketone        | Category 2 | -                 | -                            |
| 1-Methoxy-2-propanol        | Category 2 | -                 | -                            |
| 2-Methyl-1-propanol         | Category 2 | -                 | -                            |
| Xylene, mixed isomers       | Category 2 | -                 | -                            |
| Ethylbenzene                | Category 2 | -                 | -                            |
| Heavy Aliphatic Solvent     | Category 1 | -                 | central nervous system (CNS) |
| Light Aromatic Hydrocarbons | Category 2 | -                 | -                            |
| Formaldehyde (max.)         | Category 2 | -                 | -                            |

**Aspiration hazard**

| Name                        | Result                         |
|-----------------------------|--------------------------------|
| Xylene, mixed isomers       | ASPIRATION HAZARD - Category 1 |
| Ethylbenzene                | ASPIRATION HAZARD - Category 1 |
| Heavy Aliphatic Solvent     | ASPIRATION HAZARD - Category 1 |
| Light Aromatic Hydrocarbons | 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. May cause respiratory irritation.
- Skin contact** : Causes skin irritation.
- 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:  
respiratory tract irritation  
coughing  
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

# Section 11. Toxicological information

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.
- Carcinogenicity** : May cause 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                | 8910.11 mg/kg  |
| Dermal              | 21176.79 mg/kg |
| Inhalation (gases)  | 303556.4 ppm   |
| Inhalation (vapors) | 193.83 mg/l    |

# Section 12. Ecological information

Toxicity

| Product/ingredient name | Result                               | Species                                    | Exposure |
|-------------------------|--------------------------------------|--|----------|
| n-Butyl Acetate         | Acute LC50 32 mg/l Marine water      | Crustaceans - Artemia salina               | 48 hours |
|                         | Acute LC50 18000 µg/l Fresh water    | Fish - Pimephales promelas                 | 96 hours |
| Ethanol                 | Acute EC50 17.921 mg/l Marine water  | Algae - Ulva pertusa                       | 96 hours |
|                         | Acute EC50 2000 µg/l Fresh water     | Daphnia - Daphnia magna                    | 48 hours |
|                         | Acute LC50 25500 µg/l Marine water   | Crustaceans - Artemia franciscana - Larvae | 48 hours |
|                         | Acute LC50 42000 µg/l Fresh water    | Fish - Oncorhynchus mykiss                 | 4 days   |
|                         | Chronic NOEC 4.995 mg/l Marine water | Algae - Ulva pertusa                       | 96 hours |
|                         | Chronic NOEC 100 ul/L Fresh water    | Daphnia - Daphnia magna - Neonate          | 21 days  |
| 1-Butanol               | Chronic NOEC 0.375 ul/L Fresh water  | Fish - Gambusia holbrooki - Larvae         | 12 weeks |
|                         | Acute EC50 1983 mg/l Fresh water     | Daphnia - Daphnia magna                    | 48 hours |
| Methyl n-Amyl Ketone    | Acute LC50 1730000 µg/l Fresh water  | Fish - Pimephales promelas                 | 96 hours |
|                         | Acute LC50 131000 µg/l Fresh water   | Fish - Pimephales promelas                 | 96 hours |
| Ethyl Acetate           | Acute EC50 2500000 µg/l Fresh water  | Algae - Selenastrum sp.                    | 96 hours |
|                         | Acute LC50 750000 µg/l Fresh water   | Crustaceans - Gammarus pulex               | 48 hours |
|                         | Acute LC50 154000 µg/l Fresh water   | Daphnia - Daphnia cucullata                | 48 hours |
|                         | Acute LC50 212500 µg/l Fresh water   | Fish - Heteropneustes fossilis             | 96 hours |

## Section 12. Ecological information

|                       |                                      |   |          |
|-----------------------|--------------------------------------|---|----------|
| 2-Methyl-1-propanol   | Chronic NOEC 2400 µg/l Fresh water   | Daphnia - Daphnia magna                               | 21 days  |
|                       | Chronic NOEC 75.6 mg/l Fresh water   | Fish - Pimephales promelas - Embryo                   | 32 days  |
| Xylene, mixed isomers | Acute LC50 600 mg/l Marine water     | Crustaceans - Artemia salina                          | 48 hours |
|                       | Acute LC50 1030000 µg/l Fresh water  | Daphnia - Daphnia magna - Neonate                     | 48 hours |
| 2-Propanol            | Acute LC50 1330000 µg/l Fresh water  | Fish - Oncorhynchus mykiss                            | 96 hours |
|                       | Chronic NOEC 4000 µg/l Fresh water   | Daphnia - Daphnia magna                               | 21 days  |
| Ethylbenzene          | Acute LC50 8500 µg/l Marine water    | Crustaceans - Palaemonetes pugio                      | 48 hours |
|                       | Acute LC50 13400 µg/l Fresh water    | Fish - Pimephales promelas                            | 96 hours |
| Formaldehyde (max.)   | Acute EC50 7550 mg/l Fresh water     | Daphnia - Daphnia magna - Neonate                     | 48 hours |
|                       | Acute LC50 1400000 µg/l Marine water | Crustaceans - Crangon crangon                         | 48 hours |
| Formaldehyde (max.)   | Acute LC50 4200 mg/l Fresh water     | Fish - Rasbora heteromorpha                           | 96 hours |
|                       | Acute EC50 4900 µg/l Marine water    | Algae - Skeletonema costatum                          | 72 hours |
| Formaldehyde (max.)   | Acute EC50 7700 µg/l Marine water    | Algae - Skeletonema costatum                          | 96 hours |
|                       | Acute EC50 6.53 mg/l Marine water    | Crustaceans - Artemia sp. - Nauplii                   | 48 hours |
| Formaldehyde (max.)   | Acute EC50 2.93 mg/l Fresh water     | Daphnia - Daphnia magna - Neonate                     | 48 hours |
|                       | Acute LC50 4200 µg/l Fresh water     | Fish - Oncorhynchus mykiss                            | 96 hours |
| Formaldehyde (max.)   | Acute EC50 3.48 mg/l Fresh water     | Algae - Desmodesmus subspicatus                       | 72 hours |
|                       | Acute EC50 0.442 mg/l Marine water   | Algae - Ulva pertusa                                  | 96 hours |
| Formaldehyde (max.)   | Acute EC50 3.26 mg/l Fresh water     | Daphnia - Daphnia magna - Embryo                      | 48 hours |
|                       | Acute LC50 11.41 mg/l Fresh water    | Crustaceans - Ceriodaphnia dubia                      | 48 hours |
| Formaldehyde (max.)   | Acute LC50 1.41 ppm Fresh water      | Fish - Oncorhynchus mykiss                            | 96 hours |
|                       | Chronic NOEC 0.005 mg/l Marine water | Algae - Isochrysis galbana - Exponential growth phase | 96 hours |
| Formaldehyde (max.)   | Chronic NOEC 3000 ppm Fresh water    | Crustaceans - Astacus astacus - Egg                   | 21 days  |
|                       | Chronic NOEC 1.56 mg/l Fresh water   | Fish - Oreochromis niloticus - Fingerling             | 12 weeks |

### Persistence and degradability

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

### Bioaccumulative potential

## Section 12. Ecological information

| Product/ingredient name     | LogP <sub>ow</sub> | BCF         | Potential |
|-----------------------------|--------------------|-------------|-----------|
| Ethyl Acetate               | -                  | 30          | low       |
| Xylene, mixed isomers       | -                  | 8.1 to 25.9 | low       |
| Heavy Aliphatic Solvent     | -                  | 10 to 2500  | high      |
| Light Aromatic Hydrocarbons | -                  | 10 to 2500  | high      |

### Mobility in soil






**Soil/water partition coefficient (K<sub>oc</sub>)** : Not available.

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

## Section 13. Disposal considerations

**Disposal methods** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## Section 14. Transport information

|                                   | DOT Classification   | TDG Classification  | Mexico Classification  | IATA   | IMDG   |
|-----------------------------------|--|---|--|--|--|
| <b>UN number</b>                  | UN1263   | UN1263  | UN1263   | UN1263   | UN1263   |
| <b>UN proper shipping name</b>    | PAINT  | PAINT   | PAINT  | PAINT  | PAINT  |
| <b>Transport hazard class(es)</b> | 3<br> | 3<br>                                | 3<br> | 3<br> | 3<br> |
| <b>Packing group</b>              | II   | II  | II   | II   | II   |
| <b>Environmental hazards</b>      | No.  | No.   | No.  | No.  | No.  |
| <b>Additional information</b>     | -  | Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.18-2.19 (Class | -  | -  | <b>Emergency schedules</b> F-E, S-E  |

## Section 14. Transport information

|  |                       |                              |                       |  |  |
|--|-----------------------|------------------------------|-----------------------|--|--|
|  | <u>ERG No.</u><br>128 | 3).<br><u>ERG No.</u><br>128 | <u>ERG No.</u><br>128 |  |  |
|--|-----------------------|------------------------------|-----------------------|--|--|

**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

**SARA 313**

SARA 313 (40 CFR 372.45) supplier notification can be found on the Environmental Data Sheet.

**California Prop. 65**

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

**International regulations**

- International lists** :
- Australia inventory (AIC)**: 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.

## Section 16. Other information

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

### Procedure used to derive the classification

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

### History

**Date of printing** : 6/19/2022

**Date of issue/Date of revision** : 6/19/2022

**Date of previous issue** : 9/7/2021

**Version** : 16

**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.

|   |   |                     |       |
|---|---|---------------------|-------|
| <b>Date of issue/Date of revision</b> : 6/19/2022 | <b>Date of previous issue</b> : 9/7/2021      | <b>Version</b> : 16 | 21/22 |
| C14514B   | KRYSTAL® Hi Solids Catalyzed Varnish<br>Satin | SHW-85-NA-GHS-US    |       |

