







## 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. Avoid breathing 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. 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. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## Section 7. Handling and storage

### Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. 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. 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 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. 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

#### United States

##### Occupational exposure limits

| Ingredient name  | Exposure limits  |
|--|--|
| Benzenesulfonic acid, C10-16-alkyl derivs.<br>Formaldehyde | None.<br><b>ACGIH TLV (United States, 3/2019). Skin sensitizer. Inhalation sensitizer.</b><br>STEL: 0.3 ppm 15 minutes.<br>TWA: 0.1 ppm 8 hours.<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, 10/2016).</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. |

#### Canada

##### Occupational exposure limits

| Ingredient name | Exposure limits  |
|-----------------|--|
| Formaldehyde    | <b>CA Alberta Provincial (Canada, 6/2018).</b><br>C: 1.3 mg/m <sup>3</sup><br>8 hrs OEL: 0.75 ppm 8 hours.<br>8 hrs OEL: 0.9 mg/m <sup>3</sup> 8 hours.<br>C: 1 ppm<br><b>CA British Columbia Provincial (Canada, 5/2019). Skin sensitizer. Inhalation sensitizer.</b><br>TWA: 0.3 ppm 8 hours.<br>C: 1 ppm<br><b>CA Ontario Provincial (Canada, 1/2018).</b><br>C: 1.5 ppm<br>STEL: 1 ppm 15 minutes.<br><b>CA Quebec Provincial (Canada, 1/2014).</b><br>STEV: 2 ppm 15 minutes.<br>STEV: 3 mg/m <sup>3</sup> 15 minutes.<br><b>CA Saskatchewan Provincial (Canada, 7/2013). Skin sensitizer.</b><br>CEIL: 0.3 ppm |

### Appropriate engineering controls

- : If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

### Environmental exposure controls

- : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

### 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: safety glasses with side-shields.

#### 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.
- 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

### Appearance

- Physical state** : Liquid. [Syrupy.]
- Color** : Black.
- Odor** : Formaldehyde. [Slight]
- Odor threshold** : Not available.
- pH** : Not available.
- Melting point** : Not available.
- Boiling point/boiling range** : Not available.
- Flash point** : Not available.
- Evaporation rate** : Not available.
- Flammability (solid, gas)** : Not applicable.
- Lower and upper explosive (flammable) limits** : Not available.
- Vapor pressure** : Not available.
- Vapor density** : Not available.
- Relative density** : 1.126
- Solubility** : Not available.
- Partition coefficient: n-octanol/water** : Not available.
- Auto-ignition temperature** : Not available.
- Decomposition temperature** : Not available.
- Viscosity** : Not available.
- Flow time (ISO 2431)** : Not available.

## 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** : No specific data.
- 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 |
|--|----------------------|---------|------------|----------|
| Benzenesulfonic acid, C10-16-alkyl derivs. | LD50 Dermal          | Rabbit  | 2000 mg/kg | -        |
| Formaldehyde                               | LD50 Oral            | Rat     | 775 mg/kg  | -        |
|  | LC50 Inhalation Gas. | Rat     | 250 ppm    | 4 hours  |
|  | LD50 Dermal          | Rabbit  | 270 mg/kg  | -        |
|  | LD50 Oral            | Rat     | 100 mg/kg  | -        |

#### Irritation/Corrosion

| Product/ingredient name | Result                   | Species | Score | Exposure        | Observation |
|-------------------------|--------------------------|---------|-------|-----------------|-------------|
| Formaldehyde            | Eyes - Severe irritant   | Rabbit  | -     | 24 hours 750 µg | -           |
|                         | Eyes - Severe irritant   | Rabbit  | -     | 750 µg          | -           |
|                         | Skin - Mild irritant     | Rabbit  | -     | 540 mg          | -           |
|                         | Skin - Moderate irritant | Rabbit  | -     | 24 hours 50 mg  | -           |
|                         | Skin - Severe irritant   | Rabbit  | -     | 24 hours 2 mg   | -           |

#### Sensitization

There is no data available.

#### Mutagenicity

There is no data available.

#### Carcinogenicity

##### Classification

| Product/ingredient name | OSHA | IARC | NTP                             |
|-------------------------|------|------|---------------------------------|
| Formaldehyde            | +    | 1    | Known to be a human carcinogen. |

#### Reproductive toxicity

There is no data available.

#### Teratogenicity

There is no data available.

#### Specific target organ toxicity (single exposure)

| Name         | Category   | Target organs                |
|--------------|------------|------------------------------|
| Formaldehyde | Category 3 | Respiratory tract irritation |

## Section 11. Toxicological information

### Specific target organ toxicity (repeated exposure)

There is no data available.

### Aspiration hazard

There is no data available.

**Information on the likely routes of exposure** : Dermal contact. Eye contact. Inhalation. Ingestion.

### Potential acute health effects

**Eye contact** : No known significant effects or critical hazards.  
**Inhalation** : No known significant effects or critical hazards.  
**Skin contact** : May cause an allergic skin reaction.  
**Ingestion** : No known significant effects or critical hazards.

### Symptoms related to the physical, chemical and toxicological characteristics

**Eye contact** : No known significant effects or critical hazards.  
**Inhalation** : No known significant effects or critical hazards.  
**Skin contact** : Adverse symptoms may include the following:  
 irritation  
 redness  
**Ingestion** : No known significant effects or critical hazards.

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

#### Short term exposure

**Potential immediate effects** : No known significant effects or critical hazards.  
**Potential delayed effects** : No known significant effects or critical hazards.

#### Long term exposure

**Potential immediate effects** : No known significant effects or critical hazards.  
**Potential delayed effects** : No known significant effects or critical hazards.

### Potential chronic health effects

**General** : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.  
**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   | 31254.37 mg/kg |
| Dermal | 80656.43 mg/kg |



## Section 12. Ecological information

### Toxicity

| Product/ingredient name | Result  | Species  | Exposure            |
|-------------------------|---|--|---------------------|
| Formaldehyde            | Acute LC50 1170 µg/L Marine water<br>Chronic NOEC 953.9 ppm Fresh water | Crustaceans - Artemia sp.<br>Fish - Oncorhynchus tshawytscha - Egg | 48 hours<br>43 days |

### Persistenceanddegradability

There is no data available.

### Bioaccumulativepotential

There is no data available.

### Mobilityinsoil

**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 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 empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## Section 14. Transport information

|                                   | DOT Classification | TDG Classification | IMDG           | IATA           |
|-----------------------------------|--------------------|--------------------|----------------|----------------|
| <b>UN number</b>                  | Not regulated.     | Not regulated.     | Not regulated. | Not regulated. |
| <b>UN proper shipping name</b>    | -                  | -                  | -              | -              |
| <b>Transport hazard class(es)</b> | -                  | -                  | -              | -              |
| <b>Packing group</b>              | -                  | -                  | -              | -              |
| <b>Environmental hazards</b>      | No.                | No.                | No.            | No.            |

**AERG** : Not applicable

**DOT-RQ Details** : Formaldehyde 100 lbs / 45.4 kg [14.77 gal / 55.911 L]

### Additionalinformation

## Section 14. Transport information

**DOT Classification** : **Reportable quantity** 16083.4 lbs / 7301.9 kg [1713.1 gal / 6484.8 L]. Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.

**Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

## Section 15. Regulatory information

**U.S. Federal regulations** : **United States inventory (TSCA 8b):** All components are active or exempted.  
**Clean Water Act (CWA) 311:** Formaldehyde

**Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)** : Listed

**Clean Air Act Section 602 Class I Substances** : Not listed

**Clean Air Act Section 602 Class II Substances** : Not listed

**DEA List I Chemicals (Precursor Chemicals)** : Not listed

**DEA List II Chemicals (Essential Chemicals)** : Not listed

### SARA302/304

#### Composition/information on ingredients

| Name         | EHS  | SARA 302 TPQ |           | SARA 304 RQ |           |
|--------------|------|--------------|-----------|-------------|-----------|
|              |      | (lbs)        | (gallons) | (lbs)       | (gallons) |
| Formaldehyde | Yes. | 500          | 73.9      | 100         | 14.8      |

**SARA 304 RQ** : 16083.4 lbs / 7301.9 kg [1713.1 gal / 6484.8 L]

### SARA311/312

**Classification** : SKIN SENSITIZATION - Category 1  
CARCINOGENICITY - Category 1B

#### Composition/information on ingredients

| Name                                       | Classification   |
|--|--|
| Benzenesulfonic acid, C10-16-alkyl derivs. | ACUTE TOXICITY (oral) - Category 4<br>ACUTE TOXICITY (dermal) - Category 4<br>SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2A  |
| Formaldehyde                               | FLAMMABLE LIQUIDS - Category 4<br>ACUTE TOXICITY (oral) - Category 3<br>ACUTE TOXICITY (dermal) - Category 3<br>ACUTE TOXICITY (inhalation) - Category 3<br>SKIN CORROSION/IRRITATION - Category 1B<br>SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1<br>SKIN SENSITIZATION - Category 1<br>GERM CELL MUTAGENICITY - Category 2<br>CARCINOGENICITY - Category 1B<br>SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 |

### SARA313

## Section 15. Regulatory information


|                                 | Product name | CAS number |
|---------------------------------|--------------|------------|
| Form R - Reporting requirements | Formaldehyde | 50-00-0    |
| Supplier notification           | Formaldehyde | 50-00-0    |

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

### Stateregulations

- Massachusetts** : None of the components are listed.  
**New York** : The following components are listed: Formaldehyde  
**New Jersey** : The following components are listed: Formaldehyde  
**Pennsylvania** : The following components are listed: Formaldehyde

### CaliforniaProp.65

 **WARNING:** This product can expose you to Formaldehyde, which is known to the State of California to cause cancer. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

### Canadianlists

- Canada inventory (DSL NDSL)** : All components are listed or exempted.  
**Canadian NPRI** : None of the components are listed.  
**CEPA Toxic substances** : The following components are listed: Formaldehyde

## Section 16. Other information

### Procedureusedtoderivetheclassification

| Classification   | Justification                            |
|--|--|
| SKIN SENSITIZATION - Category 1<br>CARCINOGENICITY - Category 1B | Calculation method<br>Calculation method |

### History

- Date of issue mm/dd/yyyy** : 06/30/2020  
**Date of previous issue** : Not applicable  
**Version** : 1  
**Prepared by** : KMK Regulatory Services Inc.
- 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)  
UN = United Nations

### Noticetoreader

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