

# SAFETY DATA SHEET



AF315

## Section 1. Identification

**GHS product identifier** : AF315  
**Product code** : 315  
**Other means of identification** : Not available.  
**Product type** : Liquid.

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

Not applicable.

**Supplier's details** : Betco Corporation  
400 Van Camp Road  
Bowling Green, Ohio 43402  
www.betco.com  
888-462-3826

**Emergency telephone number (with hours of operation)** : Chemtrec (800) 424-9300 24 hour

**EPA Details** : **EPA Statement:**  
**This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Below is the signal word as required on the pesticide label:**

**EPA Establishment Number** :  
**EPA Registration Number** :  
**EPA Signal Word** :

## Section 2. Hazards identification

**OSHA/HCS status** : While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product. This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of nonpesticide chemicals. Please read complete product label.

**Classification of the substance or mixture** : Not classified.

### GHS label elements

**Signal word** : No signal word.  
**Hazard statements** : No known significant effects or critical hazards. (Per OSHA)  
Corrosive. Causes irreversible eye damage.  
Harmful if swallowed.  
(Previous statements per EPA.)

### Precautionary statements

**Prevention** : Not applicable.  
**Response** : Not applicable.

## Section 2. Hazards identification

|                                         |                   |
|-----------------------------------------|-------------------|
| <b>Storage</b>                          | : Not applicable. |
| <b>Disposal</b>                         | : Not applicable. |
| <b>Hazards not otherwise classified</b> | : None known.     |

## Section 3. Composition/information on ingredients

|                                      |                  |
|--------------------------------------|------------------|
| <b>Substance/mixture</b>             | : Mixture        |
| <b>Other means of identification</b> | : Not available. |

| <b>Ingredient name</b>                                                | <b>%</b> | <b>CAS number</b> |
|-----------------------------------------------------------------------|----------|-------------------|
| Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides | ≤3       | 68424-85-1        |
| Alcohols, C12-15, ethoxylated                                         | ≤3       | 68131-39-5        |

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 as hazardous to health or the environment 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

|                     |                                                                                                                                                                                                                                                                                                                                               |
|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Eye contact</b>  | : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.                                                                                                                                                         |
| <b>Inhalation</b>   | : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.                                                                                                                                                                                                               |
| <b>Skin contact</b> | : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.                                                                                                                                                                                                              |
| <b>Ingestion</b>    | : Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur. |

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

#### Potential acute health effects

|                     |                                                                                                          |
|---------------------|----------------------------------------------------------------------------------------------------------|
| <b>Eye contact</b>  | : No known significant effects or critical hazards. (Per OSHA) Causes irreversible eye damage. (Per EPA) |
| <b>Inhalation</b>   | : No known significant effects or critical hazards.                                                      |
| <b>Skin contact</b> | : No known significant effects or critical hazards.                                                      |
| <b>Ingestion</b>    | : No known significant effects or critical hazards. (Per OSHA) Harmful if swallowed. (Per EPA)           |

#### Over-exposure signs/symptoms

|                     |                     |
|---------------------|---------------------|
| <b>Eye contact</b>  | : No specific data. |
| <b>Inhalation</b>   | : No specific data. |
| <b>Skin contact</b> | : No specific data. |
| <b>Ingestion</b>    | : No specific data. |

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

|                                   |                                                                                                                             |
|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| <b>Notes to physician</b>         | : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. |
| <b>Specific treatments</b>        | : No specific treatment.                                                                                                    |
| <b>Protection of first-aiders</b> | : No action shall be taken involving any personal risk or without suitable training.                                        |

## Section 4. First aid measures

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### Extinguishing media

**Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.

**Unsuitable extinguishing media** : None known.

**Specific hazards arising from the chemical** : In a fire or if heated, a pressure increase will occur and the container may burst.

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

**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. 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. 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. 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).
- 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 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. 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

| Ingredient name                                                       | Exposure limits |
|-----------------------------------------------------------------------|-----------------|
| Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides | None.           |
| Alcohols, C12-15, ethoxylated                                         | None.           |

- Appropriate engineering controls** : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
- 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: safety glasses with side-shields. Recommended: safety glasses

#### 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. < 1 hour (breakthrough time): disposable vinyl

- 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 8. Exposure controls/personal protection

Personal protective equipment (Pictograms) :



## Section 9. Physical and chemical properties

### Appearance

|                                              |                                                                        |
|----------------------------------------------|------------------------------------------------------------------------|
| Physical state                               | : Liquid.                                                              |
| Color                                        | : Blue.-Green.                                                         |
| Odor                                         | : Fruity. Floral.                                                      |
| Odor threshold                               | : Not available.                                                       |
| pH                                           | : 6.5 to 8                                                             |
| Melting point                                | : Not available.                                                       |
| Boiling point                                | : Not available.                                                       |
| Flash point                                  | : Closed cup: 99°C (210.2°F) [Product does not sustain combustion.]    |
| Evaporation rate                             | : Not available.                                                       |
| Flammability (solid, gas)                    | : Not available.                                                       |
| Lower and upper explosive (flammable) limits | : Not available.                                                       |
| Vapor pressure                               | : Not available.                                                       |
| Vapor density                                | : Not available.                                                       |
| Relative density                             | : 1                                                                    |
| Solubility                                   | : Easily soluble in the following materials: cold water and hot water. |
| Solubility in water                          | : 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             | : No specific data.                                                                                    |
| 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 |
|-----------------------------------------------------------------------|-----------|---------|-----------|----------|
| Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides | LD50 Oral | Rat     | 426 mg/kg | -        |
| Alcohols, C12-15, ethoxylated                                         | LD50 Oral | Rat     | 2 g/kg    | -        |

#### Irritation/Corrosion

| Product/ingredient name                                               | Result                 | Species | Score | Exposure      | Observation |
|-----------------------------------------------------------------------|------------------------|---------|-------|---------------|-------------|
| Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides | Skin - Severe irritant | Rabbit  | -     | 25 milligrams | -           |

#### Sensitization

Not available.

#### Mutagenicity

Not available.

#### Carcinogenicity

Not available.

#### Reproductive toxicity

Not available.

#### Teratogenicity

Not available.

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

Not available.

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

Not available.

#### Aspiration hazard

Not available.

#### Information on the likely routes of exposure

: Routes of entry anticipated: Oral, Dermal.  
Routes of entry not anticipated: Inhalation.

#### Potential acute health effects

|                     |                                                                                                          |
|---------------------|----------------------------------------------------------------------------------------------------------|
| <b>Eye contact</b>  | : No known significant effects or critical hazards. (Per OSHA) Causes irreversible eye damage. (Per EPA) |
| <b>Inhalation</b>   | : No known significant effects or critical hazards.                                                      |
| <b>Skin contact</b> | : No known significant effects or critical hazards.                                                      |
| <b>Ingestion</b>    | : No known significant effects or critical hazards. (Per OSHA) Harmful if swallowed. (Per EPA)           |

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

|                     |                     |
|---------------------|---------------------|
| <b>Eye contact</b>  | : No specific data. |
| <b>Inhalation</b>   | : No specific data. |
| <b>Skin contact</b> | : No specific data. |
| <b>Ingestion</b>    | : No specific data. |

## 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 : No known significant effects or critical hazards.

Carcinogenicity : No known significant effects or critical hazards.

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

Not available.

## Section 12. Ecological information

### Toxicity

| Product/ingredient name                                                                                    | Result                            | Species                                    | Exposure |
|------------------------------------------------------------------------------------------------------------|-----------------------------------|--------------------------------------------|----------|
| Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides<br><br>Alcohols, C12-15, ethoxylated | Acute EC50 37 ppb Fresh water     | Daphnia - Daphnia magna                    | 48 hours |
|                                                                                                            | Acute LC50 64 ppb Fresh water     | Fish - Oncorhynchus mykiss                 | 96 hours |
|                                                                                                            | Chronic NOEC 4.15 ppb Fresh water | Daphnia - Daphnia magna                    | 21 days  |
|                                                                                                            | Chronic NOEC 32.2 ppb             | Fish - Pimephales promelas                 | 34 days  |
|                                                                                                            | Acute EC50 0.7 mg/l Fresh water   | Algae - Pseudokirchneriella subcapitata    | 96 hours |
|                                                                                                            | Acute EC50 0.39 mg/l Fresh water  | Crustaceans - Ceriodaphnia dubia - Neonate | 48 hours |
|                                                                                                            | Acute EC50 302 µg/l Fresh water   | Daphnia - Daphnia magna - Neonate          | 48 hours |
|                                                                                                            | Acute LC50 1400 µg/l Fresh water  | Fish - Pimephales promelas                 | 96 hours |
|                                                                                                            | Chronic NOEC 1 mg/l Fresh water   | Algae - Pseudokirchneriella subcapitata    | 96 hours |
|                                                                                                            | Chronic NOEC 83 µg/l Fresh water  | Daphnia - Daphnia magna - Neonate          | 21 days  |

### Persistence and degradability

Not available.

### Bioaccumulative potential

| Product/ingredient name       | LogP <sub>ow</sub> | BCF | Potential |
|-------------------------------|--------------------|-----|-----------|
| Alcohols, C12-15, ethoxylated | 2.03 to 6.24       | -   | high      |

## Section 12. Ecological information

### 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. 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

|                                   | <b>DOT<br/>Classification</b> | <b>TDG<br/>Classification</b> | <b>Mexico<br/>Classification</b> | <b>ADR/RID</b> | <b>IMDG</b>    | <b>IATA</b>    |
|-----------------------------------|-------------------------------|-------------------------------|----------------------------------|----------------|----------------|----------------|
| <b>UN number</b>                  | Not regulated.                | Not regulated.                | 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.            | No.            | No.            |

**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.

**Transport in bulk according to Annex II of MARPOL and the IBC Code** : Not available.

## Section 15. Regulatory information

**U.S. Federal regulations** : **TSCA 4(a) proposed test rules:** Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides  
**TSCA 8(a) PAIR:** 2-methylundecanal; α-hexylcinnamaldehyde; 2-(4-tert-butylbenzyl) propionaldehyde  
**TSCA 8(a) CDR Exempt/Partial exemption:** Not determined  
**Clean Water Act (CWA) 307:** Copper, [29H,31H-phthalocyaninato(2-)-.kappa.N29,.kappa.N30,.kappa.N31,.kappa.N32]-, chlorosulfonyl sulfo derivs., compds. with 2-(dimethylamino)ethanol; copper  
**Clean Water Act (CWA) 311:** propylene oxide

## Section 15. Regulatory information

**Clean Air Act Section 112** : Listed

**(b) Hazardous Air Pollutants (HAPs)**

**Clean Air Act Section 602** : Not listed

**Class I Substances**

**Clean Air Act Section 602** : Not listed

**Class II Substances**

**DEA List I Chemicals** : Not listed

**(Precursor Chemicals)**

**DEA List II Chemicals** : Not listed

**(Essential Chemicals)**

### SARA 302/304

#### Composition/information on ingredients

| Name            | %    | EHS  | SARA 302 TPQ |           | SARA 304 RQ |           |
|-----------------|------|------|--------------|-----------|-------------|-----------|
|                 |      |      | (lbs)        | (gallons) | (lbs)       | (gallons) |
| propylene oxide | ≤0.1 | Yes. | 10000        | 1444.3    | 100         | 14.4      |

**SARA 304 RQ** : 435729847.5 lbs / 197821350.8 kg [52258872.2 gal / 197821350.8 L]

### SARA 311/312

**Classification** : Not applicable.

#### Composition/information on ingredients

| Name                                   | %  | Classification                     |
|----------------------------------------|----|------------------------------------|
| Quaternary ammonium compounds, benzyl- | ≤3 | ACUTE TOXICITY (oral) - Category 4 |
| C12-16-alkyldimethyl, chlorides        | ≤3 | SKIN CORROSION - Category 1B       |
| Alcohols, C12-15, ethoxylated          | ≤3 | SERIOUS EYE DAMAGE - Category 1    |
|                                        |    | ACUTE TOXICITY (oral) - Category 4 |
|                                        |    | SERIOUS EYE DAMAGE - Category 1    |

### State regulations

**Massachusetts** : None of the components are listed.

**New York** : None of the components are listed.

**New Jersey** : The following components are listed: ETHYL ALCOHOL; ALCOHOL

**Pennsylvania** : The following components are listed: DENATURED ALCOHOL; ETHANOL; Isopropanol

### California Prop. 65

 **WARNING:** This product can expose you to Propylene oxide, 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).

| Ingredient name | No significant risk level | Maximum acceptable dosage level |
|-----------------|---------------------------|---------------------------------|
| Propylene oxide | -                         | -                               |

### International regulations

#### Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

#### Montreal Protocol (Annexes A, B, C, E)

Not listed.

#### Stockholm Convention on Persistent Organic Pollutants

Not listed.

#### Rotterdam Convention on Prior Informed Consent (PIC)

## Section 15. Regulatory information

Not listed.

### [UNECE Aarhus Protocol on POPs and Heavy Metals](#)

Not listed.

### [Inventory list](#)

|                                   |                                                                                                      |
|-----------------------------------|------------------------------------------------------------------------------------------------------|
| <a href="#">Australia</a>         | : Not determined.                                                                                    |
| <a href="#">Canada</a>            | : Not determined.                                                                                    |
| <a href="#">China</a>             | : Not determined.                                                                                    |
| <a href="#">Europe</a>            | : Not determined.                                                                                    |
| <a href="#">Japan</a>             | : <b>Japan inventory (ENCS)</b> : Not determined.<br><b>Japan inventory (ISHL)</b> : Not determined. |
| <a href="#">Malaysia</a>          | : Not determined.                                                                                    |
| <a href="#">New Zealand</a>       | : Not determined.                                                                                    |
| <a href="#">Philippines</a>       | : Not determined.                                                                                    |
| <a href="#">Republic of Korea</a> | : Not determined.                                                                                    |
| <a href="#">Taiwan</a>            | : Not determined.                                                                                    |
| <a href="#">Thailand</a>          | : Not determined.                                                                                    |
| <a href="#">Turkey</a>            | : Not determined.                                                                                    |
| <a href="#">United States</a>     | : Not determined.                                                                                    |
| <a href="#">Viet Nam</a>          | : Not determined.                                                                                    |

## Section 16. Other information

### [Hazardous Material Information System \(U.S.A.\)](#)

|                  |     |
|------------------|-----|
| Health           | / 0 |
| Flammability     | 0   |
| Physical hazards | 0   |
|                  |     |

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.

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.

### [National Fire Protection Association \(U.S.A.\)](#)



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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

### [Procedure used to derive the classification](#)

## Section 16. Other information

| Classification  | Justification |
|-----------------|---------------|
| Not classified. |               |

### History

**Date of printing** : 2/18/2019

**Date of issue/Date of revision** : 2/18/2019

**Date of previous issue** : No previous validation

**Version** : 1

**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

**References** : Not available.

▣ Indicates information that has changed from previously issued version.

### Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.