SAFETY DATA SHEET



1/14

Emulsinator

Section 1. Identif	lication			
GHS product identifier	: Emulsinator			
Product code	: 151			
Other means of identification	: Not available.			
Product type	: Liquid.			
Relevant identified uses of	f the substance or mixture and uses advised against			
Identified uses				
Floor Stripper				
Uses advised against	Reason			
For Industrial and Institution	al Use Only -			
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			
Section 2. Hazar	ds 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	: SKIN CORROSION - Category 1 SERIOUS EYE DAMAGE - Category 1			
GHS label elements				
Hazard pictograms				
Signal word	: Danger			
Hazard statements	: Causes severe skin burns and eye damage.			
Precautionary statements				
Prevention	: Wear protective gloves. Wear eye or face protection: Recommended: splash goggles. Wear protective clothing: Recommended: Chemical resistant gloves. Wash hands thoroughly after handling.			
Response	: IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF SWALLOWED: Immediately call a POISON CENTER or physician. Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention.			

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 : 3

Section 2. Hazards identification

Storage Disposal

: Store locked up.

: None known.

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

Hazards not otherwise classified

Section 3. Composition/information on ingredients

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

Ingredient name	%	CAS number
potassium hydroxide	≥10 - ≤19 ≤4.5	111-76-2 1310-58-3
Ethanolamine	≤3	141-43-5

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

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	 Remove victim to fresh air and keep at rest in a position comfortable for breathing. If unconscious, place in recovery position and get medical attention immediately. Get medical attention if symptoms occur.
Skin contact	 Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes.Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. Wash clothing before reuse.
Ingestion	: Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. 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. 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

Eye contact	1	Causes serious eye damage.
Inhalation	1	No known significant effects or critical hazards.
Skin contact	:	Causes severe burns.
Ingestion	1	No known significant effects or critical hazards.

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Section 4. First aid measures

Over-exposure signs/symptoms Eye contact : Adverse symptoms may include the following: pain watering redness Inhalation : No specific data. Skin contact : Adverse symptoms may include the following: pain or irritation redness blistering may occur Ingestion Adverse symptoms may include the following: ŝ, stomach pains Indication of immediate medical attention and special treatment needed, if necessary : In case of inhalation of decomposition products in a fire, symptoms may be delayed. Notes to physician 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 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 nitrogen oxides sulfur 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.
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, protect	ve 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. 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 cor	tainment 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 : Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or **Protective measures** on skin or clothing. Do not breathe vapor or mist. Do not ingest. 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. Keep away from acids. Empty containers retain product residue and can be hazardous. Do not reuse container. Advice on general Eating, drinking and smoking should be prohibited in areas where this material is ż handled, stored and processed. Workers should wash hands and face before eating, occupational hygiene 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, Store in accordance with local regulations. Store in original container protected from 1 direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials including any (see Section 10) and food and drink. Separate from acids. Keep container tightly incompatibilities closed and sealed until ready for use. 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
2-butoxyethanol	OSHA PEL 1989 (United States, 3/1989). Absorbed through skin. TWA: 25 ppm 8 hours. TWA: 120 mg/m ³ 8 hours. NIOSH REL (United States, 10/2016). Absorbed through skin. TWA: 5 ppm 10 hours. TWA: 24 mg/m ³ 10 hours. ACGIH TLV (United States, 3/2018). TWA: 20 ppm 8 hours. OSHA PEL (United States, 5/2018). Absorbed through skin. TWA: 50 ppm 8 hours. TWA: 240 mg/m ³ 8 hours.
potassium hydroxide	ACGIH TLV (United States, 3/2018). C: 2 mg/m ³ OSHA PEL 1989 (United States, 3/1989). CEIL: 2 mg/m ³ NIOSH REL (United States, 10/2016). CEIL: 2 mg/m ³
Ethanolamine	ACGIH TLV (United States, 3/2018). TWA: 3 ppm 8 hours. TWA: 7.5 mg/m ³ 8 hours. STEL: 6 ppm 15 minutes. STEL: 15 mg/m ³ 15 minutes. OSHA PEL 1989 (United States, 3/1989). TWA: 3 ppm 8 hours. TWA: 8 mg/m ³ 8 hours. STEL: 6 ppm 15 minutes. STEL: 15 mg/m ³ 15 minutes. NIOSH REL (United States, 10/2016). TWA: 8 mg/m ³ 10 hours. TWA: 8 mg/m ³ 10 hours. STEL: 6 ppm 15 minutes. STEL: 6 ppm 15 minutes. STEL: 15 mg/m ³ 15 minutes. STEL: 15 mg/m ³ 15 minutes. STEL: 3 ppm 8 hours. TWA: 3 ppm 8 hours. TWA: 3 ppm 8 hours. TWA: 3 ppm 8 hours.

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 measu	res	
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.

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Section 8. Exposure controls/personal protection

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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. Recommended: splash goggles
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.
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. Recommended: Chemical resistant 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. Recommended: Chemical resistant boots
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.
Personal protective equipment (Pictograms)	

Section 9. Physical and chemical properties

<u>Appearance</u>		
Physical state	: Liquid.	
Color	: Amber. [Light]	
Odor	: Sweetish. Spicy.	
Odor threshold	: Not available.	
рН	: 13.5 to 14	
Melting point	: Not available.	
Boiling point	: Not available.	
Flash point	: Closed cup: >100°C (>212°F)	
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	: 1.002	
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.	
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Section 9. Physical and chemical properties

Decomposition temperature	1	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	: Not available. acids
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
2-butoxyethanol	LC50 Inhalation Gas.	Rat	450 ppm	4 hours
	LD50 Dermal	Rabbit	220 mg/kg	-
	LD50 Oral	Rat	250 mg/kg	-
potassium hydroxide	LD50 Oral	Rat	273 mg/kg	-
Ethanolamine	LD50 Oral	Rat	1720 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
2-butoxyethanol	Eyes - Moderate irritant	Rabbit	-	24 hours 100 milligrams	-
	Eyes - Severe irritant	Rabbit	-	100 milligrams	-
	Skin - Mild irritant	Rabbit	-	500 milligrams	-
potassium hydroxide	Eyes - Moderate irritant	Rabbit	-	24 hours 1 milligrams	-
	Skin - Severe irritant	Guinea pig	-	24 hours 50 milligrams	-
	Skin - Severe irritant	Human	-	24 hours 50 milligrams	-
	Skin - Severe irritant	Rabbit	-	24 hours 50 milligrams	-
Ethanolamine	Eyes - Severe irritant	Rabbit	-	250 Micrograms	-
	Skin - Moderate irritant	Rabbit	-	505 milligrams	-

Sensitization

Not available.

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Section 11. Toxicological information

Mutagenicity

Not available.

Carcinogenicity

Not available.

Classification

Product/ingredient name	OSHA	IARC	NTP
2-butoxyethanol	-	3	-

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Name		Route of exposure	Target organs
Ethanolamine	Category 3		Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Name	Result
2-butoxyethanol	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure	: Routes of entry anticipated: Oral, Dermal, Inhalation.
Potential acute health effects	
Eye contact	: Causes serious eye damage.
Inhalation	: No known significant effects or critical hazards.
Skin contact	: Causes severe burns.
Ingestion	: No known significant effects or critical hazards.
Symptoms related to the phy Eye contact Inhalation	 ical, chemical and toxicological characteristics Adverse symptoms may include the following: pain watering redness No specific data.
Skin contact	Adverse symptoms may include the following: pain or irritation redness blistering may occur
Ingestion	: Adverse symptoms may include the following: stomach pains

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

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Section 11. Toxicological information

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 effe	<u>fects</u>	
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

Route	ATE value
Oral	2764.84 mg/kg

Section 12. Ecological information

<u>Toxicity</u>

Product/ingredient name	Result	Species	Exposure
2-butoxyethanol	Acute EC50 >1000 mg/l Fresh water Acute LC50 800000 µg/l Marine water Acute LC50 1250000 µg/l Marine water	Daphnia - Daphnia magna Crustaceans - Crangon crangon Fish - Menidia beryllina	48 hours 48 hours 96 hours
potassium hydroxide Ethanolamine	Acute LC50 80 ppm Fresh water Acute EC50 8.42 mg/l Fresh water	Fish - Gambusia affinis - Adult Algae - Desmodesmus	96 hours 72 hours
	Acute LC50 >100000 µg/l Marine water	subspicatus Crustaceans - Crangon crangon - Adult	48 hours
	Acute LC50 170 mg/l Fresh water	Fish - Carassius auratus	96 hours

Persistence and degradability

Not available.

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
2-butoxyethanol	0.81	-	low
Ethanolamine	-1.31		low

Mobility in soil

Section 12. Ecological information

Soil/water partition coefficient (Koc)

: 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. 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	ADR/RID	IMDG	ΙΑΤΑ
UN number	UN1760	UN1760	UN1760	UN1760	UN1760	UN1760
UN proper shipping name	Corrosive liquid, n.o.s. (potassium hydroxide)					
Transport hazard class(es)	8	8	8	8	8	8
Packing group	11	11	11	11	11	11
Environmental hazards	No.	No.	No.	No.	No.	No.

Additional information

ADR/RID

DOT Classification	: Reportable quantity 30441.4 lbs / 13820.4 kg [3643.7 gal / 13792.8 L]. Package	e sizes
	shipped in quantities less than the product reportable quantity are not subject to the	าe RQ
	(reportable quantity) transportation requirements.	

TDG Classification : Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.40-2.42 (Class 8).

: <u>Tunnel code</u> (E)

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 14. Transport information

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

Section 15. Regulatory information

U.S. Federal regulations	: TSCA 8(a) PAIR: cinnamaldehyde; 4-Nonylphenol, branched, ethoxylated TSCA 8(a) CDR Exempt/Partial exemption: Not determined
	Clean Water Act (CWA) 311: potassium hydroxide
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
SARA 302/304	
Composition/information	on ingredients
No products were found.	
SARA 304 RQ	: Not applicable.

SARA 304 RQ

: Not applicable.

SARA 311/312

Classification

: SKIN CORROSION - Category 1 SERIOUS EYE DAMAGE - Category 1

Composition/information on ingredients

Name	%	Classification
2-butoxyethanol	≥10 - ≤19	FLAMMABLE LIQUIDS - Category 4
		ACUTE TOXICITY (oral) - Category 4
		SKIN IRRITATION - Category 2
		EYE IRRITATION - Category 2A
		ASPIRATION HAZARD - Category 1
potassium hydroxide	≤4.5	ACUTE TOXICITY (oral) - Category 4
		SKIN IRRITATION - Category 2
		SERIOUS EYE DAMAGE - Category 1
Ethanolamine	≤3	FLAMMABLE LIQUIDS - Category 4
		ACUTE TOXICITY (oral) - Category 4
		SKIN CORROSION - Category 1B
		SERIOUS EYE DAMAGE - Category 1
		SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)
		(Respiratory tract irritation) - Category 3

SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	2-butoxyethanol	111-76-2	≥10 - ≤19
Supplier notification	2-butoxyethanol	111-76-2	≥10 - ≤19

Section 15. Regulatory information

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.

State regulations

Massachusetts	 The following components are listed: ETHANOLAMINE; 2-AMINOETHANOL; POTASSIUM HYDROXIDE; 2-BUTOXYETHANOL; BUTYL CELLOSOLVE
New York	: The following components are listed: Potassium hydroxide
New Jersey	 The following components are listed: ETHANOLAMINE; ETHANOL, 2-AMINO-; POTASSIUM HYDROXIDE; CAUSTIC POTASH; 2-BUTOXY ETHANOL; BUTYL CELLOSOLVE
Pennsylvania	 The following components are listed: ETHANOL, 2-AMINO-; POTASSIUM HYDROXIDE; ETHANOL, 2-BUTOXY-

California Prop. 65

WARNING: This product can expose you to Diethanolamine, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

Ingredient name		Maximum acceptable dosage level
Diethanolamine	-	-

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

Australia	: All components are listed or exempted.	
Canada	: All components are listed or exempted.	
China	: All components are listed or exempted.	
Europe	: Not determined.	
Japan	: Japan inventory (ENCS): Not determined. Japan inventory (ISHL): Not determined.	
Malaysia	: Not determined	
New Zealand	: All components are listed or exempted.	
Philippines	: All components are listed or exempted.	
Republic of Korea	: Not determined.	
Taiwan	: All components are listed or exempted.	
Thailand	: Not determined.	
Turkey	: Not determined.	
United States	: All components are listed or exempted.	
Viet Nam	: Not determined.	
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Section 16. Other information

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



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

	Classification	Justification
		On basis of test data On basis of test data
<u>History</u>		
Date of printing	: 3/17/2022	
Date of issue/Date of revision	: 3/17/2022	
Date of previous issue	: 3/8/2022	
Version	: 3	
Key to abbreviations	: ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor GHS = Globally Harmonized System of Classificat IATA = International Air Transport Association IBC = International Air Transport Association IBC = International Maritime Dangerous Goods LogPow = logarithm of the octanol/water partition of MARPOL = International Convention for the Preve as modified by the Protocol of 1978. ("Marpol" = m UN = United Nations	coefficient ntion of Pollution From Ships, 1973
References	: Not available.	
Indicates information the	at has changed from previously issued version.	

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Section 16. Other information

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.

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