

SAFETY DATA SHEET

1

.

Citrus Chisel

	ication
GHS product identifier	: Citrus Chisel
Product code	: 167
Other means of identification	: Not available.
Product type	: Liquid.
Relevant identified uses of Not applicable.	the substance or mixture and uses advised against
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
HA/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: > 8 hours (breakthrough time): butyl rubber. Wear eye or face protection: Recommended: splash goggles. Wear protective clothing. Wash hands thoroughly after handling.
Response	: IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or physician. 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. Wash contaminated clothing before reuse. Immediately call a POISON CENTER or physician. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a
1	POISON CENTER or physician.
Storage	: Store locked up.
Disposal	: Dispose of contents and container in accordance with all local, regional, national and international regulations.
Hazards not otherwise	: None known.

Section 3. Composition/information on ingredients

Substance/mixture

- Other means of identification
- : Mixture
- : Not available.

Ingredient name	%	CAS number
sodium hydroxide	≤3	1310-73-2
Silicic acid, sodium salt	≤3	1344-09-8
tetrasodium ethylene diamine tetraacetate	≤3	64-02-8

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	:	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. 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

Potential acute health effects		
Eye contact	:	Causes serious eye damage.
Inhalation	2	No known significant effects or critical hazards.
Skin contact	:	Causes severe burns.
Ingestion	:	No known significant effects or critical hazards.
Over-exposure signs/symptoms		

Section 4. First aid measures

The magnetic production of the production of the second state of t		
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: stomach pains
Indication of immediate me	dica	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)

Pection 5. Fire-fighting measures

	-	
mediaUnsuitable 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 metal oxide/oxidesSpecial 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: Fire-fighters should wear appropriate protective equipment and self-contained breathin	Extinguishing media	
mediaSpecific 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 nitrogen oxides metal oxide/oxidesSpecial 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: Fire-fighters should wear appropriate protective equipment and self-contained breathin	-	: Use an extinguishing agent suitable for the surrounding fire.
from the chemical Hazardous thermal decomposition products: Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides metal oxide/oxidesSpecial 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: Fire-fighters should wear appropriate protective equipment and self-contained breathin		: None known.
decomposition products 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. Special protective : Fire-fighters should wear appropriate protective equipment and self-contained breathin		: In a fire or if heated, a pressure increase will occur and the container may burst.
for fire-fightersthere is a fire. No action shall be taken involving any personal risk or without suitable training.Special protective: Fire-fighters should wear appropriate protective equipment and self-contained breathing		carbon dioxide carbon monoxide nitrogen oxides
		there is a fire. No action shall be taken involving any personal risk or without suitable
equipment for fire-fighters apparatus (SCBA) with a full face-piece operated in positive pressure mode.		: 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				
r 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-		

Section 6. Accidental release measures

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 c	ontainment 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). Do not get in eyes or 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 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. Store locked up. Separate from acids. 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
sodium hydroxide	ACGIH TLV (United States, 4/2014). C: 2 mg/m ³
	OSHA PEL 1989 (United States, 3/1989). CEIL: 2 mg/m ³
	NIOSH REL (United States, 10/2013). CEIL: 2 mg/m ³ OSHA PEL (United States, 2/2013).
	TWA: 2 mg/m ³ 8 hours.
Silicic acid, sodium salt tetrasodium ethylene diamine tetraacetate	None. None.

Section 8. Expos	ure controls/personal protection
propriate engineering ntrols	: 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. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.
Individual protection meas	ures
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. 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. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. > 8 hours (breakthrough time): butyl rubber
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.
Personal protective equipment (Pictograms)	

Section 9. Physical and chemical properties

Appearance	
Physical state	: Liquid.
Color	: Orange. [Dark]
or	: Fruity.
odor threshold	: Not available.
рН	: 13 to 14
Melting point	: Not available.
Boiling point	: Not available.
Flash point	: Closed cup: Not applicable. [Product does not sustain combustion.]

Section 9. Physical and chemical properties

Flammability (solid, gas)		
riannability (solid, gas)		Not available.
Lower and upper explosive	:	Not available.
(flammable) limits		
Vapor pressure		Not available.
	•	NUL available.
Vapor density	:	Not available.
Relative density	:	1.04269
Solubility	:	Easily soluble in the following materials: cold water and hot water.
Solubility in water		Not available.
Partition coefficient: n-	:	Not available.
octanol/water		
Auto-ignition temperature	:	Not available.
Decomposition 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: 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
Silicic acid, sodium salt tetrasodium ethylene diamine tetraacetate	LD50 Oral LD50 Oral	1 Destroyed down	1960 mg/kg 10 g/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
sodium hydroxide	Eyes - Severe irritant	Monkey	-	24 hours 1	-
				Percent	
	Eyes - Mild irritant	Rabbit	-	400	-
				Micrograms	
	Eyes - Severe irritant	Rabbit	-	24 hours 50	-
				Micrograms	
	Eyes - Severe irritant	Rabbit	-	1 Percent	-
	Eyes - Severe irritant	Rabbit	-	0.5 minutes 1	-
				milligrams	
	Skin - Mild irritant	Human	-	24 hours 2	-
	1			Percent	

Section 11. Toxicological information

			1	04 hours 40	
Silicic acid, sodium salt	Eyes - Severe irritant	Rabbit	-	24 hours 10	-
	-			milligrams	
	Skin - Severe irritant	Rabbit	-	24 hours 500	-
				milligrams	
tetrasodium ethylene diamine	Eves - Moderate irritant	Rabbit	-	24 hours 100	-
-	Lyes - Moderate initiant	Tabbit		milligrams	
tetraacetate					
	Skin - Moderate irritant	Rabbit	-	24 hours 500	-
				milligrams	
				Iningrame	

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 entry anticipated: Oral, Dermal.
routes of exposure	Routes of entry not anticipated: 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 physical, chemical and toxicological characteristics

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: stomach pains

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

Short term exposure

Section 11. Toxicological information

	-
Potential delayed effects	: Not available.
Long term exposure	
Potential immediate effects	: Not available.
Potential delayed effects	: Not available.
Potential chronic health eff	ects
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.
Eartility offende	
Fertility effects	: No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Oral	28803.5 mg/kg

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
sodium hydroxide	Acute EC50 40.38 mg/l Fresh water	Crustaceans - Ceriodaphnia dubia - Neonate	48 hours
	Acute LC50 125 ppm Fresh water	Fish - Gambusia affinis - Adult	96 hours
	Chronic NOEC 56 mg/l Marine water	Fish - Poecilia reticulata - Young	96 hours
Silicic acid, sodium salt	Acute EC50 0.4 mg/l Fresh water	Crustaceans - Ceriodaphnia dubia - Neonate	48 hours
	Acute LC50 494000 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
tetrasodium ethylene diamine tetraacetate	Acute LC50 486000 µg/l Fresh water	Fish - Lepomis macrochirus	96 hours

Persistence and degradability

Not available.

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
tetrasodium ethylene diamine tetraacetate	5.01	1.8	low

Mobility in soil

Soil/water partition	: 1	No
coefficient (Koc)		

: Not available.

Other adverse effects

: No known significant effects or critical hazards.

Section 13. Disposal considerations

posal 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. (sodium hydroxide)	Corrosive liquid, n.o.s. (sodium hydroxide)	Corrosive liquid, n.o.s. (sodium hydroxide)	Corrosive liquid, n.o.s. (sodium hydroxide)	Corrosive liquid, n.o.s. (sodium hydroxide)	Corrosive liquid, n.o.s. (sodium hydroxide)
Transport ∽zard class(es)	8	8	8	8	8	8
Packing group	П	П	11	11	11	П
Environmental hazards	Yes.	Yes.	Yes. The environmentally hazardous substance mark is not required.	Yes.	Yes.	Yes. The environmentally hazardous substance mark is not required.
Additional inforn DOT Classificat	ion : T w	aterways in sizes rovided the packa	regulated as a ma of ≤5 L or ≤5 kg o gings meet the go	or by road, rail, or eneral provisions	inland air in non- of §§ 173.24 and	bulk sizes, 173.24a.

(reportable quantity) transportation requirements. Limited guantity Yes.

sizes of ≤5 L or ≤5 kg. Tunnel code (E)

TDG Classification

ADR/RID

IMDG IATA : The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.

: The environmentally hazardous substance mark is not required when transported in

: Product classified as per the following sections of the Transportation of Dangerous

<u>Reportable quantity</u> 46187.2 lbs / 20969 kg [5312.6 gal / 20110.5 L]. Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ

: The environmentally hazardous substance mark may appear if required by other

Goods Regulations: 2.40-2.42 (Class 8), 2.7 (Marine pollutant mark). The marine pollutant mark is not required when transported by road or rail.

Explosive Limit and Limited Quantity Index 1

Section 14. Transport information

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	:	Not available.	

to Annex II of MARPOL and the IBC Code

Section 15. Regulatory information

U.S. Federal regulations		SCA 4(a) proposed	l test rules : Quaternary ammonium compounds, benzyl- chlorides	
	Т	SCA 8(a) CDR Exer	mpt/Partial exemption: Not determined	
			VA) 311: sodium hydroxide	
Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)	: No	ot listed		
Clean Air Act Section 602 Class I Substances	: No	ot listed		
Clean Air Act Section 602 Class II Substances	: No	ot listed		
DEA List I Chemicals (Precursor Chemicals)	: No	ot listed		
DEA List II Chemicals (Essential Chemicals)	: No	ot listed		
SARA 302/304				
Composition/information of	on ing	<u>redients</u>		
No products were found.				
SARA 304 RQ	: No	ot applicable.		
SARA 311/312				
Classification		N CORROSION - C RIOUS EYE DAMA(
Composition/information of	n ing	redients		
Name		%	Classification]
sodium hydroxide		≤3	SKIN CORROSION - Category 1A SERIOUS EYE DAMAGE - Category 1	
Silicic acid, sodium salt		≤3	ACUTE TOXICITY (oral) - Category 4 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A	
tetrasodium ethylene diamin	e	≤3	ACUTE TOXICITY (oral) - Category 4	

State regulations

tetraacetate

: The following components are listed: SODIUM HYDROXIDE; Sodium Hydroxide Solution
: The following components are listed: Sodium hydroxide
: The following components are listed: SODIUM HYDROXIDE; CAUSTIC SODA; Sodium Hydroxide Solution
: The following components are listed: SODIUM HYDROXIDE (NA(OH)); Sodium Hydroxide Solution

SERIOUS EYE DAMAGE - Category 1

California Prop. 65

Section 15. Regu	latory information
<u>Pernational regulations</u>	
Chemical Weapon Conver	ntion List Schedules I, II & III Chemicals
Not listed.	
<u>Montreal Protocol (Annex</u>	tes A, B, C, E)
Not listed.	
Stockholm Convention or	n Persistent Organic Pollutants
Not listed.	
Rotterdam Convention or	<u>n Prior Informed Consent (PIC)</u>
Not listed.	
UNECE Aarhus Protocol o	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.
ew Zealand	: All components are listed or exempted.
Philippines	: All components are listed or exempted.
Republic of Korea	: All components are listed or exempted.
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.

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® ersonal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

National Fire Protection Association (U.S.A.)



Section 16. Other information

Reprinted with permission from NFPA 704-2001, Identification of the Hazards of Materials for Emergency Response Copyright ©1997, National Fire Protection Association, Quincy, MA 02269. This reprinted material is not the complete and official position of the National Fire Protection Association, on the referenced subject which is represented only by the standard in its entirety.

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.

	Classification Justification	
SKIN CORROSION - Categ SERIOUS EYE DAMAGE -	ory 1 On basis of test data On basis of test data	
History		
Date of printing	10/15/2018	
Date of issue/Date of revision	10/15/2018	
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 Chemical IATA = International Air Transport Association IBC = International Air Transport Association IBC = International Maritime Dangerous Goods LogPow = logarithm of the octanol/water partition coefficient MARPOL = International Convention for the Prevention of Pollution From Ships, as modified by the Protocol of 1978. ("Marpol" = marine pollution) UN = United Nations	
References	Not available.	

Procedure used to derive the classification

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.