

SAFETY DATA SHEET

Spent Cresylic Caustic



Section 1. Identification

Product name : Spent Cresylic Caustic
Product code : Not available.
Synonyms : Cresylic Spent Caustic, Sodium Cresylate, Phenolic Caustic

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

Product use : By-Product
Area of application : Industrial applications.

Manufacturer : HollyFrontier Refining & Marketing LLC
2828 North Harwood
Suite 1300
Dallas, Texas 75201
USA
Customer Service: 1-214-954-6720

e-mail address of person responsible for this SDS : hfcsds@hollyfrontier.com
Emergency telephone number : CHEMTREC® (800) 424-9300
CCN 201319

Section 2. Hazards identification

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

Classification of the substance or mixture : H302 ACUTE TOXICITY (oral) - Category 4
H312 ACUTE TOXICITY (dermal) - Category 4
H332 ACUTE TOXICITY (inhalation) - Category 4
H314 SKIN CORROSION - Category 1
H318 SERIOUS EYE DAMAGE - Category 1
H341 GERM CELL MUTAGENICITY - Category 2
H370 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 1
H373 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2

Percentage of the mixture consisting of ingredient(s) of unknown acute oral toxicity: 10%
Percentage of the mixture consisting of ingredient(s) of unknown acute dermal toxicity: 10%
Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 22.5%

GHS label elements

Hazard pictograms :



Signal word : Danger

Hazard statements : H302 + H312 + H332 - Harmful if swallowed, in contact with skin or if inhaled.
 H314 - Causes severe skin burns and eye damage.
 H341 - Suspected of causing genetic defects.
 H370 - Causes damage to organs.
 H373 - May cause damage to organs through prolonged or repeated exposure.
 (cardiovascular system, central nervous system (CNS), kidneys, liver, nervous system)

Precautionary statements

Prevention : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing and eye or face protection. Use only outdoors or in a well-ventilated area. Do not breathe vapor. Do not eat, drink or smoke when using this product. Wash thoroughly after handling.

Response : If exposed: Call a POISON CENTER or doctor. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor. IF SWALLOWED: Immediately call a POISON CENTER or doctor. Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Immediately call a POISON CENTER or doctor. Wash contaminated clothing before reuse. IF ON SKIN: Call a POISON CENTER or doctor if you feel unwell. Wash with plenty of water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.

Storage : Not applicable.

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

Supplemental label elements : Keep container tightly closed. Do not breathe vapor or spray. Do not taste or swallow. Use only with adequate ventilation. Wash thoroughly after handling.

Hazards not otherwise classified : Causes respiratory tract burns. Causes severe digestive tract burns.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Ingredient name	Other names	%	CAS number
mix-cresol	-	0 - 25	1319-77-3
sodium hydroxide	-	0 - 20	1310-73-2
phenol	-	0 - 10	108-95-2

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Chemical burns must be treated promptly by a physician. Continue to rinse for at least 15 minutes.

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.

- Skin contact** : Get medical attention immediately. Call a poison center or physician. Wash with plenty of soap and water. Remove contaminated clothing and shoes. Continue to rinse for at least 15 minutes. Chemical burns must be treated promptly by a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : 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. Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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** : Harmful if inhaled. Causes damage to organs following a single exposure if inhaled. Corrosive to the respiratory system.
- Skin contact** : Causes severe burns. Harmful in contact with skin. Causes damage to organs following a single exposure in contact with skin.
- Ingestion** : Severely corrosive to the digestive tract. Causes severe burns. May cause burns to mouth, throat and stomach. Harmful if swallowed. Causes damage to organs following a single exposure if swallowed.

Over-exposure signs/symptoms

- Eye contact** : pain; watering; redness; blindness
- Inhalation** : respiratory tract irritation; coughing; pulmonary edema
- Skin contact** : pain or irritation; redness; blistering may occur
- Ingestion** : stomach pains

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

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.
- Protection of medical responders** : 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** : Do not use water jet.

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. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

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

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

Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Absorb with an inert 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, waterways, 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). Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. 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. 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.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
m-x-cresol sodium hydroxide phenol	<p>ACGIH TLV (United States, 3/2020). Absorbed through skin. TWA: 20 mg/m³ 8 hours. Form: Inhalable fraction and vapor</p> <p>OSHA PEL (United States, 5/2018). Absorbed through skin. TWA: 5 ppm 8 hours. TWA: 22 mg/m³ 8 hours.</p> <p>ACGIH TLV (United States, 3/2020). C: 2 mg/m³</p> <p>NIOSH REL (United States, 10/2016). CEIL: 2 mg/m³</p> <p>OSHA PEL (United States, 5/2018). TWA: 2 mg/m³ 8 hours.</p> <p>ACGIH TLV (United States, 3/2020). Absorbed through skin. TWA: 5 ppm 8 hours. TWA: 19 mg/m³ 8 hours.</p> <p>NIOSH REL (United States, 10/2016). Absorbed through skin. TWA: 5 ppm 10 hours. TWA: 19 mg/m³ 10 hours. CEIL: 15.6 ppm 15 minutes. CEIL: 60 mg/m³ 15 minutes.</p> <p>OSHA PEL (United States, 5/2018). Absorbed through skin. TWA: 5 ppm 8 hours. TWA: 19 mg/m³ 8 hours.</p>

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

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

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.


Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties


The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.


Appearance


Physical state : Liquid.
Color : Dark brown/Black.
Odor : Petroleum.
Odor threshold : Not available.
pH : >11
Melting point : Not available.
Boiling point, initial boiling point, and boiling range : >104°C (>220°F)
Flash point :

Ingredient name	Closed cup			Open cup		
	°C	°F	Method	°C	°F	Method
 mix-cresol	80.85	177.5				

Evaporation rate : Not available.
Flammability : Not available.
Lower and upper explosion limit/flammability limit : Not available.
Vapor pressure :

Ingredient name	Vapor Pressure at 20°C			Vapor pressure at 50°C		
	mm Hg	kPa	Method	mm Hg	kPa	Method
 water	23.8	3.2		92.258	12.3	

Relative vapor density : Not available.
Relative density : 1.2
Density : Not available.
Solubility : Soluble in the following materials: cold water and hot water.
Partition coefficient: n-octanol/water :  Not applicable.
Auto-ignition temperature :

Ingredient name	°C	°F	Method
 mix-cresol	>580	>1076	DIN 51794

Decomposition temperature : Not available.
SADT : Not available.
Viscosity : Not available.
Flow time (ISO 2431) : Not available.

Particle characteristics

Median particle size :  Not applicable.

Additional information

Physical/chemical properties comments : No additional information.

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.
Under normal conditions of storage and use, hazardous polymerization 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
m-x-cresol phenol	LD50 Dermal	Rabbit	200 mg/kg	-
	LD50 Oral	Rat	1454 mg/kg	-
	LC50 Inhalation Dusts and mists	Rat	316 mg/m ³	4 hours
	LD50 Dermal	Rabbit	630 mg/kg	-
	LD50 Dermal	Rat	669 mg/kg	-
	LD50 Oral	Rat	317 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
sodium hydroxide phenol	Eyes - Mild irritant	Rabbit	-	400 ug	-
	Eyes - Severe irritant	Rabbit	-	24 hours 50 ug	-
	Eyes - Severe irritant	Rabbit	-	1 %	-
	Eyes - Severe irritant	Rabbit	-	0.5 minutes 1 mg	-
	Skin - Severe irritant	Rabbit	-	24 hours 500 mg	-
	Eyes - Mild irritant	Rabbit	-	0.5 minutes 5 mg	-
	Eyes - Severe irritant	Rabbit	-	5 mg	-
	Skin - Mild irritant	Rabbit	-	100 mg	-
	Skin - Severe irritant	Rabbit	-	535 mg	-

Carcinogenicity

Product/ingredient name	OSHA	IARC	NTP
phenol	-	3	-

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
sodium hydroxide	Category 3	-	Respiratory tract irritation
phenol	Category 1	-	-

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
mix-cresol	Category 2	-	cardiovascular system, central nervous system (CNS)
phenol	Category 2	-	kidneys, liver, nervous system

Aspiration hazard

Not available.

Information on the likely routes of exposure : Routes of entry anticipated: Oral, Dermal, Inhalation.

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

General : May cause damage to organs through prolonged or repeated exposure.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : Suspected of causing genetic defects.

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**

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
Spent Cresylic Caustic	710.4	1419.7	N/A	N/A	4.9
mix-cresol	100	200	N/A	N/A	N/A
phenol	317	630	N/A	N/A	0.316

Section 12. Ecological information**Toxicity**

Product/ingredient name	Result	Species	Exposure
mix-cresol	Acute EC50 5 to 10 ppm Marine water	Algae - Macrocyctis pyrifera - Young	4 days
	Acute EC50 7000 µg/l Fresh water	Crustaceans - Gammarus fasciatus	48 hours
sodium hydroxide	Acute LC50 10000 µg/l Fresh water	Fish - Lepomis macrochirus	96 hours
	Acute EC50 40.38 mg/l Fresh water	Crustaceans - Ceriodaphnia dubia - Neonate	48 hours
phenol	Acute LC50 125 ppm Fresh water	Fish - Gambusia affinis - Adult	96 hours
	Acute EC50 61.1 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	96 hours
	Acute EC50 36 mg/l Marine water	Algae - Hormosira banksii - Gamete	72 hours
	Acute EC50 94 mg/l Fresh water	Aquatic plants - Lemna aequinoctialis	96 hours
	Acute EC50 4200 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 800 µg/l Marine water	Crustaceans - Archaeomysis kokuboi - Juvenile (Fledgling, Hatchling, Weanling)	48 hours
	Acute LC50 1555 µg/l Fresh water	Fish - Cirrhinus mrigala - Larvae	96 hours
	Chronic NOEC 16 µg/l Marine water	Algae - Hormosira banksii - Gamete	72 hours
	Chronic NOEC 1.5 mg/l Fresh water	Daphnia - Daphnia magna	21 days
	Chronic NOEC 118 µg/l Fresh water	Fish - Oncorhynchus mykiss	90 days

Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
phenol	OECD 301C Ready Biodegradability - Modified MITI Test (I)	62 % - Readily - 4.16667 days	-	-

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
mix-cresol	-	-	Readily
phenol	-	-	Readily

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
mix-cresol	2.33	17 to 20	low
phenol	1.47	647	high

Mobility in soil

Soil/water partition coefficient (K_{oc}) : 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.

United States - RCRA Toxic hazardous waste "U" List

Ingredient	CAS #	Status	Reference number
Cresol	1319-77-3	Listed	U052
Phenol	108-95-2	Listed	U188

Section 14. Transport information

	DOT Classification	IMDG	IATA
UN number	UN3267	UN3267	UN3267
UN proper shipping name	Corrosive liquid, basic, organic, n. o.s. (mix-cresol, sodium hydroxide)	CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (mix-cresol, sodium hydroxide)	Corrosive liquid, basic, organic, n. o.s. (mix-cresol, sodium hydroxide)
Transport hazard class(es)	8 	8 	8 
Packing group	I	I	I
Environmental hazards	No.	Yes.	Yes. The environmentally hazardous substance mark is not required.

Additional information

DOT Classification

: **Reportable quantity** 800 lbs / 363.2 kg [79.956 gal / 302.67 L]. Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.

Limited quantity No.

Packaging instruction Exceptions: None. Non-bulk: 201. Bulk: 243.

Quantity limitation Passenger aircraft/rail: 0.5 L. Cargo aircraft: 2.5 L.

Special provisions B10, T14, TP2, TP27

IMDG

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

Emergency schedules F-A, S-B

Special provisions 274

IATA

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

Quantity limitation Passenger and Cargo Aircraft: 0.5 L. Packaging instructions: 850. Cargo Aircraft Only: 2.5 L. Packaging instructions: 854. Limited Quantities - Passenger Aircraft: Forbidden. Packaging instructions: Forbidden.

Special provisions A3, A803

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

Section 15. Regulatory information

U.S. Federal regulations : **United States inventory (TSCA 8b):** All components are active or exempted.

Clean Water Act (CWA) 307: phenol

Clean Water Act (CWA) 311: mix-cresol; sodium hydroxide; phenol

RCRA (Resource Conservation and Recovery Act) Hazardous waste constituents appendix VIII to 40 CFR part 261

Name	%	Status
mix-cresol	0 - 25	Listed
phenol	0 - 10	Listed

Clean Air Act Section 112 : Listed

(b) Hazardous Air Pollutants (HAPs)

SARA 302/304

Composition/information on ingredients

Name	%	EHS	SARA 302 TPQ		SARA 304 RQ	
			(lbs)	(gallons)	(lbs)	(gallons)
phenol	0 - 10	Yes.	500 / 10000	-	1000	-

SARA 304 RQ : 20000 lbs / 9080 kg [1998.9 gal / 7566.7 L]

SARA 311/312

Classification

: **ACUTE TOXICITY (oral)** - Category 4
ACUTE TOXICITY (dermal) - Category 4
ACUTE TOXICITY (inhalation) - Category 4
SKIN CORROSION - Category 1
SERIOUS EYE DAMAGE - Category 1
GERM CELL MUTAGENICITY - Category 2
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 1
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
HNOC - Corrosive to digestive tract [severe]
HNOC - Corrosive to respiratory tract

Composition/information on ingredients

Name	%	Classification
mix-cresol	0 - 25	FLAMMABLE LIQUIDS - Category 4 ACUTE TOXICITY (oral) - Category 3 ACUTE TOXICITY (dermal) - Category 2 SKIN CORROSION - Category 1B SERIOUS EYE DAMAGE - Category 1 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
sodium hydroxide	0 - 20	HNOC - Corrosive to respiratory tract CORROSIVE TO METALS - Category 1 SKIN CORROSION - Category 1A SERIOUS EYE DAMAGE - Category 1 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
phenol	0 - 10	HNOC - Corrosive to digestive tract [severe] ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (dermal) - Category 3 ACUTE TOXICITY (inhalation) - Category 2 SKIN CORROSION - Category 1B SERIOUS EYE DAMAGE - Category 1

		GERM CELL MUTAGENICITY - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 1 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2 HNOC - Corrosive to digestive tract HNOC - Corrosive to respiratory tract
--	--	---

SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	<input checked="" type="checkbox"/> mix-cresol	1319-77-3	0 - 25
	phenol	108-95-2	0 - 10
Supplier notification	<input checked="" type="checkbox"/> mix-cresol	1319-77-3	0 - 25
	phenol	108-95-2	0 - 10

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: CRESOL; SODIUM HYDROXIDE; PHENOL
- New York** : The following components are listed: Cresol(s); Sodium hydroxide; Carbolic acid; Phenol
- New Jersey** : The following components are listed: CRESOLS (mixed isomers); TRICRESOL; CRESYLIC ACID; PHENOL, METHYL-; SODIUM HYDROXIDE; SODIUM HYDRATE; CAUSTIC SODA; PHENOL; HYDROXYBENZENE; CARBOLIC ACID
- Pennsylvania** : The following components are listed: PHENOL, METHYL-; SODIUM HYDROXIDE; PHENOL

California Prop. 65

This product does not require a Safe Harbor warning under California Prop. 65.

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** : All components are listed or exempted.
- Japan** : **Japan inventory (CSCL)**: All components are listed or exempted.
 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** : All components are listed or exempted.
- Taiwan** : All components are listed or exempted.

Turkey : Not determined.

Section 16. Other information

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

Health	4
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.)



Procedure used to derive the classification

Classification	Justification
ACUTE TOXICITY (oral) - Category 4	Calculation method
ACUTE TOXICITY (dermal) - Category 4	Calculation method
ACUTE TOXICITY (inhalation) - Category 4	Calculation method
SKIN CORROSION - Category 1	On basis of test data
SERIOUS EYE DAMAGE - Category 1	On basis of test data
GERM CELL MUTAGENICITY - Category 2	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 1	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2	Calculation method

Date of issue/Date of revision : 08/24/2021

Date of previous issue : 03/22/2018

Version : 3

Key to abbreviations

: ATE = Acute Toxicity Estimate
 AMP = Acceptable maximum peak above the acceptable ceiling concentration for an 8-hr shift
 BCF = Bioconcentration Factor
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals
 IATA = International Air Transport Association
 IBC = Intermediate Bulk Container
 IMDG = International Maritime Dangerous Goods
 LogPow = logarithm of the octanol/water partition coefficient
 MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
 N/A = Not available
 UN = United Nations

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 manufacturer, 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.