

## EMULDAC AS-25

### SECTION 1 IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

<b>Trade name</b>	EMULDAC AS-25	
<b>Synonyms</b>	Ethoxylated Alcohol, Cetearth-25, Alkyl Polyglycol Ether	
<b>Use</b>	Paper Chemical	
<b>Company</b>	Sasol Chemicals (USA) LLC (an affiliate of Sasol Chemicals North America LLC)	
<b>Address</b>	12120 Wickchester Lane Houston TX 77079	
<b>Telephone</b>	CHEMTREC North America Transportation Emergency (24-hr)	(800) 424-9300
	CHEMTREC World Wide	(703) 527-3887
	Other Emergencies (24-hr)	(337) 494-5142
	MSDS and Product Information (8:00am-4:30pm CST)	(281) 588-3491
	Health and Safety Information (7:30am-4:00pm CST)	(281) 588-3492
<b>E-mail address</b>	SasolElectronicSDS@us.sasol.com	

### SECTION 2 HAZARDS IDENTIFICATION

Not a hazardous substance or mixture according to OSHA HCS 2012.

**Additional advice** This product may contain residual levels of alcohols which, even under normal handling conditions, may smell and irritate the eyes, nose, and throats of some individuals.

### SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

<u>Components</u>	<u>CAS-No.</u>	<u>Weight percent</u>
Alcohols, C16-C18, ethoxylated	68439-49-6	100

See Section 8 for Exposure Guidelines and Section 15 for Regulatory Classifications.

### SECTION 4 FIRST AID MEASURES

- Eye contact** Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
- Skin contact** Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. When symptoms persist or in all cases of doubt seek medical advice. Wash contaminated clothing before re-use.
- Inhalation** Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration. Call a physician immediately.
- Ingestion** If swallowed, call a poison control centre or doctor immediately. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person.

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### SECTION 5 FIREFIGHTING MEASURES

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#### FLAMMABLE PROPERTIES

**Fire/explosion** NFPA Class IIIB combustible liquid.

**Suitable extinguishing media** Water spray, Foam, Dry chemical, Carbon dioxide (CO<sub>2</sub>)

**Protective equipment and precautions for firefighters** Wear self contained breathing apparatus for fire fighting if necessary.

**Further information** Keep containers and surroundings cool with water spray. Do not use a solid water stream as it may scatter and spread fire. Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

### SECTION 6 ACCIDENTAL RELEASE MEASURES

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**Methods and materials for containment and cleaning up** Evacuate personnel to safe areas. Remove all sources of ignition. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Do not flush into surface water or sanitary sewer system.

### SECTION 7 HANDLING AND STORAGE

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**Safe handling advice** Take precautionary measures against static discharges.

**Storage/Transport pressure** Ambient

**Load/Unload temperature** 43 - 54 °C  
110 - 130 °F

**Storage and handling materials** Suitable: Carbon steel coated with baked phenolic. Any moisture may cause rusting of carbon steel. If product is moisture free, uncoated carbon steel tanks.

**Further information on storage conditions** When stored in the liquid form, ethoxylates should be padded with a dry inert gas, such as nitrogen, to prevent oxygen or air from entering the tank. Prolonged storage in the presence of air or oxygen may cause product degradation. Oxidation is not expected when stored under a nitrogen atmosphere. Inert gas blanket and breathing system needed to maintain color stability. Use dry inert gas having at least -40°C (-40°F) dew point.

### SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

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#### ENGINEERING MEASURES

Ensure adequate ventilation, especially in confined areas. Trace amounts of ethylene oxide may be present in the product and could accumulate in vapor spaces of storage or transport vessels.

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**PERSONAL PROTECTIVE EQUIPMENT**

**Eyes** Wear as appropriate: Goggles, Face-shield

**Skin** Full protective clothing, chemical boots, and chemical gloves. High standards of skin care and personal hygiene should be exercised at all times.

**Inhalation** Use respirator when performing operations involving potential exposure to vapour of the product. Use NIOSH approved respiratory protection.

**EXPOSURE GUIDELINES**

There are no exposure limits established for this product. Trace amounts of ethylene oxide may be present in this product., The ethylene oxide in this product is not expected to result in significant exposures or present a health hazard.

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**SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**

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**Appearance** solid;

**Colour** white

**Form** powder, flakes

**Odour** slight

**Odour Threshold** no data available

**Flash point** 125 °C, 257 °F; PMCC;

**Flammability** Upper explosion limit: no data available  
Lower explosion limit: no data available

**Boiling point/boiling range** 250 °C, 482 °F;

**Melting point/range** 45 - 49 °C, 113 - 120 °F;

**Auto-ignition temperature** Not available

**Decomposition temperature** no data available

**Flammability (solid, gas)** no data available

**Vapour pressure** 0.001 mm Hg @ 20 °C, 68 °F;

**Vapour density** > 1

**Density** approximately 1.015 g/cm<sup>3</sup> @ 70 °C, 158 °F;

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<b>Specific gravity</b>	no data available
<b>Water solubility</b>	soluble
<b>Viscosity</b>	no data available
<b>Viscosity, dynamic</b>	45 mPa.s @ 70 °C, 158 °F;
<b>pH</b>	5 - 7 @ 20 °C, 68 °F;
<b>Evaporation rate</b>	not applicable
<b>Partition coefficient: n-octanol/water</b>	no data available

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**SECTION 10 STABILITY AND REACTIVITY**

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<b>Reactivity</b>	Stable at normal ambient temperature and pressure.
<b>Chemical stability</b>	No decomposition if stored and applied as directed.
<b>Conditions to avoid</b>	Reacts slowly with air or oxygen. Storage under heated conditions in the presence of air or oxygen increases reaction rate. For example, after storing at 95°F/35°C for 30 days in the presence of air, there is measureable oxidation of the ethoxylate. Lower temperatures will allow for longer storage time and higher temperatures will shorten the storage time if stored under an air or oxygen atmosphere.
<b>Hazardous decomposition products</b>	When storing this product in air or oxygen, decomposition may occur, generating vapors which could be irritating. Ensure adequate ventilation, especially in confined areas. Oxidation is not expected when stored under a nitrogen atmosphere.
<b>Materials to avoid</b>	Can react with strong oxidizers, inorganic acids, and halogens.
<b>Hazardous polymerisation</b>	None.

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**SECTION 11 TOXICOLOGICAL INFORMATION**

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<b>Additional Remarks</b>	Information given is based on data obtained from similar substances.
<b>Acute dermal toxicity</b>	LD50 rabbit: > 2,000 mg/kg(literature value)
<b>Acute inhalation toxicity</b>	LC50 value expected to exceed the saturated vapor concentration in air.
<b>Acute oral toxicity</b>	LD50 rat: > 2,000 mg/kg
<b>Skin corrosion/irritation</b>	Primary irritation (rabbit): 4 hours; 0.1 (Max. score is 8.0.) Not irritating
<b>Eye damage/irritation</b>	Not irritating

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**Respiratory or skin sensitization** guinea pig: not sensitizing; Maximisation Test

**Germ cell mutagenicity** **Genotoxicity in vitro:**  
In vitro tests did not show mutagenic effects.

**Genotoxicity in vivo:**  
In vivo tests did not show mutagenic effects

**Assessment Mutagenicity:**  
Based on available data, the classification criteria are not met.

**Reproductive toxicity** **Reproductive toxicity:**  
rat;  
NOAEL (parents): > 250 mg/kg  
NOAEL (F1): > 250 mg/kg  
NOAEL (F2): > 250 mg/kg  
(literature value)

**Assessment Reproductive toxicity:**  
Based on available data, the classification criteria are not met.

**Teratogenicity:**  
rat; Oral; Two-generation reproductive toxicity  
NOAEL (teratogen): > 50 mg/kg  
NOAEL (maternal): 50 mg/kg  
(literature value)  
rat; Dermal; Two-generation reproductive toxicity  
NOAEL (teratogen): > 250 mg/kg  
NOAEL (maternal): 250 mg/kg  
(literature value)

**Assessment teratogenicity:**  
Based on available data, the classification criteria are not met.

**STOT - single exposure** The substance or mixture is not classified as specific target organ toxicant, single exposure.

**STOT - repeated exposure** rat; Oral; Two-year;  
NOAEL: 50 mg/kg  
(literature value)  
The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

**Aspiration toxicity** no data available

**Carcinogenicity** **Assessment carcinogenicity:**  
No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

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**SECTION 12                      ECOLOGICAL INFORMATION**


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<b>Toxicity to fish</b>	LC50 (Cyprinus carpio (Carp)) 96 hours: > 1 - 10 mg/l; flow-through test; OECD Test Guideline 203 (literature value)
<b>Toxicity to aquatic invertebrates</b>	EC50 (Daphnia magna (Water flea)) 48 hours: > 1 - 10 mg/l; static test; OECD Test Guideline 202 (literature value)
<b>Toxicity to algae</b>	EC50 (Desmodesmus subspicatus (green algae)) 72 hours: > 1 - 10 mg/l; static test; OECD Test Guideline 201 (literature value)
<b>Chronic toxicity to fish</b>	no data available
<b>Chronic toxicity to aquatic invertebrates</b>	no data available
<b>Toxicity to bacteria</b>	EC50 (activated sludge) : 140 mg/l (literature value)
<b>Biodegradation</b>	Readily biodegradable.  OECD Test Guideline 301B (28 d): > 60 % (literature value)
<b>Bioaccumulation</b>	Bioaccumulation is unlikely.
<b>Mobility in soil</b>	Adsorption/Soil Koc: > 5000 immobile
<b>Other adverse effects</b>	no data available

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**SECTION 13                      DISPOSAL CONSIDERATIONS**


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<b>Waste Code</b>	Any unused product or empty containers may be disposed of as non-hazardous in accordance with state and federal requirements. Re-evaluation of the product may be required by the user at the time of disposal, since the product uses, transformations, mixtures, contamination, and spillage may change the classification. If the resulting material is determined to be hazardous, please dispose in accordance with state and federal (40 CFR 262) hazardous waste regulations.
<b>Disposal methods</b>	Dispose of only in accordance with local, state, and federal regulations.

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**Empty containers.** Empty containers retain product residue (liquid and/or vapor) and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. Empty drums should be completely drained, triple-rinsed, properly bunged and promptly returned to a drum reconditioner, or properly disposed.

### SECTION 14 TRANSPORT INFORMATION

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**DOT** Not regulated.

**IATA** Not regulated.

**IMDG** Not regulated.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

**Remarks** no data available

### SECTION 15 REGULATORY INFORMATION

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#### U.S. FEDERAL REGULATIONS

##### OSHA Hazards (HCS 1994)

Non-hazardous substance

##### TSCA Inventory Listing

###### Components

Alcohols, C16-C18, ethoxylated

###### CAS-No.

68439-49-6

##### SARA 302 Status

###### Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

###### CAS-No.

###### Weight percent

##### SARA 311/312 Classification

Non-hazardous substance

##### SARA 313 Chemical

###### Components

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

###### CAS-No.

###### Weight percent

##### US. EPA CERCLA Hazardous Substances (40 CFR 302)

###### Components

none

###### Reportable Quantity

###### Weight percent

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### INTERNATIONAL REGULATIONS

#### WHMIS Classification

WHMIS hazardous composition: No ingredients are hazardous according to the CPR criteria.

#### European Union

The product does not need to be labelled in accordance with EC directives or respective national laws.

Australia. Inventory of Chemical Substances (AICS)	Listed
Japan. Inventory of Existing and New Chemical Substances (ENCS)	Listed
Japan. Industrial Safety & Health Law (ISHL) Inventory	Listed
Canada. Domestic Substances List (DSL) Inventory	Listed
Canadian Non-Domestic Substance Listing (NDSL)	Not listed
European Inventory of Existing Commercial Chemical Substances (EINECS) Listing	Listed
Philippines. Inventory of Chemicals / Chemical Substances (PICCS)	Listed
Korea. Existing Chemicals Inventory (KECI)	Listed
China. Inventory of Existing Chemical Substances (IECSC)	Listed
Mexico. National Inventory of Chemical Substances (INSQ)	Not listed
New Zealand. Inventory of Chemicals (NZIoC)	Listed
Switzerland. Inventory of Notified New Substances (CHINV)	Listed
Taiwan. National Existing Chemical Inventory (NECI)	Listed

Please note: The names and CAS numbers which are used for this product in the stated inventories may deviate from the information which is listed in Section 3.

### STATE REGULATIONS

#### California Prop. 65

##### Components

Ethylene Oxide

##### CAS-No.

75-21-8

Sasol Chemicals (USA) LLC's ethoxylates may contain detectable quantities of ethylene oxide which is a chemical on the California Proposition 65 list. The level is typically below 1.0 ppm, although it may vary. The manufacturing process is controlled to reduce the residual ethylene oxide content.

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## SECTION 16 OTHER INFORMATION



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**HAZARD RATINGS**

	<u>Health</u>	<u>Flammability</u>	<u>Physical Hazard/ Instability</u>
<b>HMIS®</b>	1	1	0
<b>NFPA</b>	1	1	0

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