

NOVELUTION 390

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

Trade name NOVELUTION 390
Synonyms Ethoxylated Alcohol
Use Emulsifier, Industrial use, Paint and Coatings
Company Sasol Chemicals (USA) LLC
(an affiliate of Sasol Chemicals North America LLC)
Address 12120 Wickchester Lane, Houston, TX 77079
Telephone CHEMTREC North America Transportation Emergency (24-hr) (800) 424 9300
CHEMTREC World Wide (703) 527-3887
Other Emergencies (24-hr) (337) 494 5142
SDS and Product Information (8:00am-4:30pm CST) (281) 588 3491
Health and Safety Information (7:30am-4:00pm CST) (281) 588 3492
E-mail address SasolElectronicSDS@us.sasol.com

SECTION 2 HAZARDS IDENTIFICATION

OSHA/GHS Acute toxicity (Oral) Category 4
Hazards Serious eye damage Category 1

LABEL ELEMENTS**Hazard symbols**

Signal word Danger

Hazard statements H302 Harmful if swallowed.
H318 Causes serious eye damage.

Precautionary statements

Prevention P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P280 Wear eye protection/ face protection.

Response P301 + P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

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P330 Rinse mouth.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER/doctor.

Disposal P501 Dispose of contents/ container to an approved waste disposal plant.

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>
Alcohol Ethoxylate	Proprietary	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.

SECTION 5 FIREFIGHTING MEASURES

FLAMMABLE PROPERTIES

Fire/explosion NFPA Class IIIB combustible liquid.

Suitable extinguishing media Water spray, Foam, Dry chemical, Carbon dioxide (CO₂)

Protective equipment and precautions for firefighters Wear self-contained breathing apparatus for firefighting if necessary.

Further information Keep containers and surroundings cool with water spray. Do not use a solid water stream

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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

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.
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SECTION 7 HANDLING AND STORAGE

Safe handling advice	Take precautionary measures against static discharges.
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Storage/Transport pressure	Ambient
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Load/Unload temperature	21 - 65 °C 70 - 150 °F
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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.
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Further information on storage conditions	Mix thoroughly before use. 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.
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SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

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.

PERSONAL PROTECTIVE EQUIPMENT

Eyes	Wear as appropriate: Goggles, Face-shield
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Skin	Full protective clothing, chemical boots, and chemical gloves. High standards of skin care and personal hygiene should be exercised at all times.
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Inhalation	Use respirator when performing operations involving potential exposure to vapour of the product. Use NIOSH approved respiratory protection.
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EXPOSURE GUIDELINES

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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.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance	liquid;
Colour	Clear to slightly hazy
Form	liquid
Odour	mild
Odour Threshold	No data available
Flash point	> 196 °C, 385 °F;
Flammability	Upper explosion limit: No data available Lower explosion limit: No data available
Boiling point/boiling range	estimated > 250 - 270 °C, > 481 - 518 °F;
Melting point/range	2.8 °C, 37 °F;
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Flammability (solid, gas)	No data available
Vapour pressure	< 1 mm Hg @ 20 °C, 68 °F;
Vapour density	20.8
Density	0.99 g/cm3 @ 40 °C, 104 °F;
Relative density	No data available
Water solubility	soluble
Viscosity	41 cSt @ 40 °C, 104 °F;

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pH	6 - 8
Evaporation rate	No data available
Partition coefficient: n-octanol/water	No data available
Volatile organic compounds (VOC) content	2.38 %

SECTION 10 STABILITY AND REACTIVITY

Reactivity	Stable at normal ambient temperature and pressure.
Chemical stability	No decomposition if stored and applied as directed.
Conditions to avoid	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.
Hazardous decomposition products	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.
Materials to avoid	Can react with strong oxidizers, inorganic acids, and halogens.
Hazardous polymerisation	None.

SECTION 11 TOXICOLOGICAL INFORMATION

Additional Remarks	Information given is based on data obtained from similar substances.
Acute dermal toxicity	No data available
Acute inhalation toxicity	LC50 value expected to exceed the saturated vapor concentration in air.
Acute oral toxicity	LD50 Rat: 300 - 2,000 mg/kg (literature value)
Skin corrosion/irritation	Primary irritation (Rabbit): 4 hours; 4.1 - 4.6 (Max. score is 8.0.) Test substance: Alcohol Ethoxylate

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Serious eye damage/eye irritation Primary irritation (Rabbit): 35.6 - 42.1 (Max. score is 110.)
Test substance: Alcohol Ethoxylate

Respiratory or skin sensitisation No data available

Germ cell mutagenicity **Genotoxicity in vitro:**
No data available

Genotoxicity in vivo:
No data available

Assessment Mutagenicity:
No data available

Reproductive toxicity **Reproductive toxicity:**
No data available

Assessment Reproductive toxicity:
No data available

Teratogenicity:
No data available

Assessment teratogenicity:
No data available

STOT - single exposure No data available

STOT - repeated exposure No data available

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.

SECTION 12 ECOLOGICAL INFORMATION

Toxicity to fish LC50 (Danio rerio (zebra fish)) 96 hours: 12 mg/l; OECD Test Guideline 203
Test substance: Alcohol Ethoxylate

Toxicity to aquatic invertebrates EC50 (Daphnia magna (Water flea)) 48 hours: 4.7 mg/l; OECD Test Guideline 202
Test substance: Alcohol Ethoxylate

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Toxicity to algae	ErC50 (Desmodesmus subspicatus (green algae)) 72 hours: 17 mg/l; OECD Test Guideline 201 Test substance: Alcohol Ethoxylate
Chronic toxicity to fish	No data available
Chronic toxicity to aquatic invertebrates	No data available
Biodegradation	Readily biodegradable.OECD Test Guideline 301F (28 d): > 60 % (10 day window met)
Bioaccumulative potential	No data available
Mobility in soil	No data available
Other adverse effects	No data available

SECTION 13 DISPOSAL CONSIDERATIONS

Waste Code	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.
Disposal methods	Dispose of only in accordance with local, state, and federal regulations.
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

DOT	not regulated
IATA	not regulated
IMDG	not regulated

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

Remarks No data available

SECTION 15 REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS**TSCA Inventory Listing****Components**

Alcohol Ethoxylate

CAS-No.

Proprietary

All chemical substances in this product are either on the TSCA Active Inventory, or in compliance with the inventory.

SARA 302 Status**Components****CAS-No.****Weight percent**

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

SARA 311/312 Classification

Should this product meet EPCRA 311/312 Tier reporting criteria of 40 CFR 370, refer to Section 2 of this SDS for appropriate classification and Section 3 for components that meet the hazardous classification.

SARA 313 Chemical**Components****CAS-No.****Weight percent**

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.

US. EPA CERCLA Hazardous Substances (40 CFR 302)**Components****Reportable Quantity****Weight percent**

none

INTERNATIONAL REGULATIONS**WHMIS Classification**

Acute toxicity (Oral)

Category 4

Serious eye damage

Category 1

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European Union

This surfactant complies with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.

Classification according to Regulation (EU) 1272/2008.

Serious eye damage, Category 1

Acute toxicity (Oral), Category 4

Classified according to the CESIO recommendation.

Australia. Inventory of Chemical Substances (AICS)	Listed
Japan. Inventory of Existing and New Chemical Substances (ENCS)	Listed
Japan. ISHL - Inventory of Chemical Substances	Listed
Canada. Domestic Substances List (DSL) Inventory	Listed
Canada. Non-Domestic Substance Listing (NDSL)	Not 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 Chemical Substances (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

HAZARD RATINGS

	<u>Health</u>	<u>Flammability</u>	<u>Physical Hazard/ Instability</u>
HMIS®	3	1	0
NFPA	3	1	0

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