



NOVEL® 610-3.5 Ethoxylate

Material Safety Data Sheet

SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

Trade name	NOVEL® 610-3.5 Ethoxylate		
Synonyms	Ethoxylated Alcohol, Formerly NOVEL® II 610-3.5 Ethoxylate		
Manufacturer/Supplier	Sasol North America Inc.		
Address	900 Threadneedle, 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	
	MSDS and Product Information (8:00am-4:30pm CST)	(281) 588-3491	
	Health and Safety Information (8:00am-4:00pm CST)	(281) 588-3492	

SECTION 2 COMPOSITION AND INFORMATION ON INGREDIENTS

<u>Components</u>	<u>CAS-No.</u>	<u>Weight %</u>
Alcohols, C6-C12, ethoxylated	68439-45-2	100

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

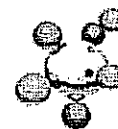
SECTION 3 HAZARDS IDENTIFICATION

Emergency Overview

Appearance	Clear to slightly hazy, liquid
Odour	Sweet, pungent
Precautions	WARNING! CAUSES EYE IRRITATION. Avoid contact with eyes. Wash thoroughly after handling.
Environmental precautions	Do not flush into surface water or sanitary sewer system. Toxic to aquatic life. Rapidly and extensively biodegradable.

Potential Health Effects

Eyes	Irritating to eyes. May cause corneal inflammation.
Skin	May cause skin irritation and/or dermatitis. High standards of skin care and personal hygiene should be exercised at all times.
Inhalation	Irritating to respiratory system.



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Ingestion Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

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

(See Section 11 for Toxicological Information)

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 FIRE-FIGHTING MEASURES

FLAMMABLE PROPERTIES

Flash point 114 °C PM 238 °F

Autoignition temperature approximately 275 °C 527 °F

Flammable limits in air % by volume Lower explosion limit: approximately 0.3 %(V)
Upper explosion limit: approximately 1.6 %(V)

Fire and explosion NFPA Class IIIB combustible liquid.

Extinguishing media Water spray or fog, foam, dry chemical, CO2.

Fire fighting instructions 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.



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SECTION 6 ACCIDENTAL RELEASE MEASURES

Steps to be taken in case of spill or leak	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	4 - 38 °C 40 - 100 °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	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 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	Chemical resistant goggles must be worn.
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Skin	Full protective clothing, chemical boots, and chemical gloves.
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Inhalation	Use NIOSH approved respiratory protection.
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EXPOSURE GUIDELINES

<u>Components</u>	<u>Exposure limit(s)</u>
Ethylene Oxide	OSHA PEL 1 ppm (1.8 mg/m ³)
	OSHA EL 5 ppm (9 mg/m ³)
	ACGIH TLV (8-hour) 1 ppm (1.8 mg/m ³)

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.

PEL= Permissible Exposure Limits
TLV= Threshold Limit Value
EL= Excursion Limit

TWA= Time Weighted Average (8 hr.)
STEL= Short Term Exposure Limit (15 min.)
WEEL= Workplace Environmental Exposure Level

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance	liquid
Colour	Clear to slightly hazy.
Odour	Sweet, pungent
Form	liquid
Boiling point/range	192 °C 377 °F
Vapour pressure	8.1 mm Hg @ 38 °C
Vapor density	8 - 10
Solubility (water)	negligible
Viscosity	12 cSt @ 38 °C
Melting point/range	-12 - -8 °C 10 - 18 °F
Density	7.94 lb/gal @ 21 °C
Specific gravity	0.953 @ 22 °C



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SECTION 10 STABILITY AND REACTIVITY

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.
Incompatibility with other materials	Can react with strong oxidizers, inorganic acids, and halogens.
Hazardous polymerization	None.

SECTION 11 TOXICOLOGICAL INFORMATION

Additional Remarks This product has not been tested. Data for a similar product are provided below.

Eyes	Primary irritation (rabbit): 58 (Maximum score is 110.)
Skin	Primary irritation (rabbit): 4 hours 0.2 - 1.1 (Maximum score is 8.0.) Primary irritation (rabbit): 24 hours 3.2 (Maximum score is 8.0.) Acute dermal LD50 (rabbit): 1,500 - 1,900 mg/kg
Inhalation	Acute 1 hours LC50 (rat): > 3.2 mg/l Acute 4 hours LC50 (rat): > 8.02 mg/l
Ingestion	Acute oral LD50 (rat): 5,100 mg/kg

CARCINOGENICITY

Ethylene Oxide	
NTP	Known to be a human carcinogen.
OSHA	Carcinogen and reproductive hazard.
IARC	Carcinogenic to humans.



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SECTION 12 ECOLOGICAL INFORMATION

Aquatic toxicity Toxic to aquatic life.

LC50 (Daphnia) 48 hours 9.2 mg/l
Test Substance: (ALFONIC 610-3.5)

Biodegradation Rapidly and extensively biodegradable.

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.

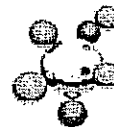
Empty containers. Empty containers retain product residue (liquid and/or vapor) and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. 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 classified as dangerous in transport.

IATA Not classified as dangerous in transport.

IMDG Not classified as dangerous in transport.



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SECTION 15 REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS

OSHA classification
Eye irritant

TSCA Inventory Listing

Components

CAS-No.

Alcohols, C6-C12, ethoxylated

68439-45-2

SARA 302 Status
Components

CAS-No.

Weight %

Contains no chemicals subject to SARA 302 reporting.

SARA 311/312 Classification
"Immediate (acute) health hazard"

SARA 313 Chemical
Components

CAS-No.

Weight %

Contains no chemicals subject to SARA 313 reporting.

CERCLA Hazardous Substance
Components

CERCLA RQ

Weight %

Contains no chemicals subject to CERCLA.

INTERNATIONAL REGULATIONS

Workplace Hazardous Materials Information System (WHMIS) Classification
Class D, Division 2, Subdivision B: Toxic material.

Australian Inventory of Chemical Substances (AICS) Listing
Listed on the AICS.

Japanese Minister of International Trade and Industry (MITI) Inventory Listing
Listed on MITI.

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Canadian Domestic Substance List (DSL) Inventory Listing
Listed on the DSL.

European Inventory of Existing Commercial Chemical Substances (EINECS) Listing
Listed on EINECS.

Philippines Inventory List (PICCS)
Listed on PICCS.

Korean Inventory List
Listed on the ECL.

China Inventory List
Listed on the China inventory.

STATE REGULATIONS

California Safe Drinking Water Act (Prop 65) Listing
Components

CAS-No.

Ethylene Oxide

75-21-8

Sasol North America Inc. 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.

SECTION 16 OTHER INFORMATION

HAZARD RATINGS

	<u>Health</u>	<u>Flammability</u>	<u>Reactivity</u>
HMIS	2	1	0
NFPA	1	1	0

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