

CA55

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

Trade name	CA55		
Synonyms	Xylenol		
Use	Intermediate, Solvent mixture, Synthesis of polymers		
Company	Sasol Chemicals (USA) LLC (an affiliate of Sasol Chemicals North America LLC)		
Address	1914 Haden Road, Houston, TX 77015-6498		
Telephone	CHEMTREC North America Transportation Emergency (24-hr)		(800) 424 9300
	CHEMTREC World Wide		(703) 527-3887
	Other Emergencies (24-hr)		(832) 783 6600
	SDS and Product Information (8:00am-4:30pm CST)		(832) 783 6400
	Health and Safety Information (7:30am-4:00pm CST)		(281) 588 3491
	NCEC - Europe, Israel, Africa, Americas	+44 (0) 2087 628 322	
	NCEC - Middle East, Arabic African countries (where European languages are spoken)	+44 (0) 1235 239 670	
	NCEC - Middle East/Africa (where Arabic is spoken)	+44 (0) 1235 239 671	
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	NCEC - Australia	+61 2801 44558	
E-mail address	SasolElectronicSDS@us.sasol.com		

SECTION 2 HAZARDS IDENTIFICATION

OSHA/GHS Hazards	Flammable liquids	Category 4
	Acute toxicity (Oral)	Category 4
	Acute toxicity (Dermal)	Category 3
	Skin corrosion	Category 1B
	Serious eye damage	Category 1
	Skin sensitisation	Category 1
	Acute aquatic toxicity	Category 2
	Chronic aquatic toxicity	Category 2

LABEL ELEMENTS**Hazard symbols**

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Signal word Danger

Hazard statements

- H227 Combustible liquid.
- H302 Harmful if swallowed.
- H311 Toxic in contact with skin.
- H314 Causes severe skin burns and eye damage.
- H318 Causes serious eye damage.
- H317 May cause an allergic skin reaction.
- H401 Toxic to aquatic life.
- H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

Prevention

- P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
- P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
- P264 Wash skin thoroughly after handling.
- P270 Do not eat, drink or smoke when using this product.
- P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
- P272 Contaminated work clothing should not be allowed out of the workplace.
- P273 Avoid release to the environment.

Response

- P370 + P378 In case of fire: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide to extinguish.
- P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
- P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.
- P363 Wash contaminated clothing before reuse.
- 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.
- P391 Collect spillage.

Storage P403 + P405 + P235 Store locked up in a well-ventilated place. Keep cool.

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

SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

<u>Components</u>	<u>CAS-No.</u>	<u>Weight percent</u>
2,4-Xylenol	105-67-9	20 - 50

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2,5-Xylenol	95-87-4	10 - 30
p-Ethylphenol	123-07-9	10 - 30
m-Ethylphenol	620-17-7	5 - 25
2,3-Xylenol	526-75-0	1 - 10
3,5-Xylenol	108-68-9	1 - 10
3,4-Xylenol	95-65-8	1 - 10
Trimethylphenol	26998-80-1	1 - 10

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

SECTION 4 FIRST AID MEASURES

- Eye contact** In case of eye contact, remove contact lens and rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention immediately.
- Skin contact** Take off contaminated clothing and shoes immediately. If possible, quickly blot material from skin to avoid spreading it. Rapid skin decontamination is critical. Wash off immediately with plenty of water. Wash off with polyethylene glycol and afterwards with plenty of water. Apply PEG/EtOH solution liberally to affected area. Allow to remain 15 to 30 seconds, then wash with water. Continue cycle of water - PEG/EtOH solution for at least 15 minutes (PEG/EtOH solution consists of 2 parts polyethylene glycol 400 to 1 part ethanol. For external use only.) Wash off with soap and water. Obtain medical attention. Wash contaminated clothing before re-use.
- Inhalation** Remove to fresh air. Keep patient warm and at rest. Obtain medical attention. If breathing is irregular or stopped, administer artificial respiration. In case of shortness of breath, give oxygen.
- Ingestion** Call a physician or poison control centre immediately. Do NOT induce vomiting. Rinse mouth. Immediately give plenty of water (if possible charcoal slurry). Never give anything by mouth to an unconscious person.

SECTION 5 FIREFIGHTING MEASURES

FLAMMABLE PROPERTIES

Fire/explosion May be ignited by open flame. NFPA Class IIIA combustible liquid.

Suitable extinguishing media Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide., Do NOT use water jet.

Protective equipment and precautions for firefighters Wear self-contained breathing apparatus and protective suit.

Further information Evacuate personnel to safe areas. Prevent further leakage or spillage if safe to do so. Keep containers and surroundings cool with water spray. In the event of fire and/or explosion do not breathe fumes. Avoid contact with runoff water

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SECTION 6 ACCIDENTAL RELEASE MEASURES

Methods and materials for containment and cleaning up Evacuate personnel to safe areas. Use personal protective equipment. Land spill: Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13). Do not flush into surface water or sanitary sewer system. Water spill: Contain spill with booms. Remove material that settles in deeper areas of waterway. Non-disposable equipment should be thoroughly decontaminated with soap and water. Prevent further leakage or spillage if safe to do so. Do not contaminate any lakes, streams, ponds, groundwater or soil.

SECTION 7 HANDLING AND STORAGE

Safe handling advice Wear personal protective equipment. Avoid contact with skin and eyes. Provide sufficient air exchange and/or exhaust in work rooms. In case of insufficient ventilation, wear suitable respiratory equipment.

Storage and handling materials Unsuitable: Avoid use of aluminum, copper or brass alloys in storage or process equipment which will contact this material

Further information on storage conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat and sources of ignition.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING MEASURES

Ensure adequate ventilation, especially in confined areas.

PERSONAL PROTECTIVE EQUIPMENT

Eyes Chemical resistant goggles must be worn., Wear as appropriate:, Face-shield

Skin Full protective clothing, chemical boots, and chemical gloves. Impervious gloves. Non-disposable equipment should be thoroughly decontaminated with soap and water.

Inhalation Use NIOSH approved respiratory protection. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

EXPOSURE GUIDELINES

<u>Components</u>	<u>Exposure limit(s)</u>
Naphthalene	OSHA PEL (Permissible Exposure Limit) 10 ppm 50 mg/m3
	ACGIH TLV (8-hour) 10 ppm 50 mg/m3
	NIOSH Recommended Exposure Limit 10 ppm 50 mg/m3
	NIOSH Short term exposure limit 15 ppm 75 mg/m3
	NIOSH NIOSH IDLH (Immediately Dangerous to Life or Health Concentrations) 250 ppm

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o-Toluidine OSHA PEL (Permissible Exposure Limit) 5 ppm
ACGIH TLV (8-hour) 2 ppm
*Skin Hazard: Skin exposure should be prevented or reduced to control skin absorption.

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 amber

Form liquid

Odour Antiseptic

Odour Threshold No data available

Flash point 93 - 94 °C, 199 - 201 °F

Flammability Upper explosion limit: approximately 6 %(V)
Lower explosion limit: approximately 1 %(V)

Boiling point/boiling range 213 - 217 °C, 415 - 422 °F

Melting point/range < -10 °C, < 14 °F

Auto-ignition temperature estimated 480 °C, 896 °F

Decomposition temperature No data available

Flammability (solid, gas) No data available

Vapour pressure 0.1 mm Hg @ 25 °C, 77 °F

Vapour density approximately 4

Density 1.02 g/cm³ @ 15.5 °C, 59.9 °F

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Relative density	1.02 @15.5 °C, 59.9 °F
Water solubility	5 g/l @ 20 °C, 68 °F
Viscosity	No data available
Viscosity, dynamic	5 mPa.s @ 50 °C, 122 °F
pH	5.5
Evaporation rate	No data available
Partition coefficient: n-octanol/water	log Pow: 2.5
Molecular weight	122 g/mol

SECTION 10 STABILITY AND REACTIVITY

Reactivity	No dangerous reaction known under conditions of normal use.
Chemical stability	Stable under recommended storage conditions.
Conditions to avoid	Keep away from heat and sources of ignition.
Hazardous decomposition products	Combustion products include carbon dioxide, carbon monoxide and possibly other unidentified organic compounds.
Materials to avoid	Incompatible with strong acids and bases. Incompatible with oxidizing agents. Copper and brass alloys Aluminium
Hazardous polymerisation	Hazardous polymerisation does not occur.

SECTION 11 TOXICOLOGICAL INFORMATION

Additional Remarks	Information given is based on data obtained from similar substances or components of this material.
Acute dermal toxicity	236 mg/kg (calculated ATE)

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Acute inhalation toxicity	No data available
Acute oral toxicity	449 mg/kg (calculated ATE)
Skin corrosion/irritation	Causes severe skin burns and eye damage.
Serious eye damage/eye irritation	Causes serious eye damage.
Respiratory or skin sensitisation	Guinea pig: Causes sensitisation.
Germ cell mutagenicity	<p>Genotoxicity in vitro: In vitro tests did not show mutagenic effects</p> <p>Genotoxicity in vivo: In vivo tests did not show mutagenic effects</p> <p>Assessment Mutagenicity: Based on available data, the classification criteria are not met.</p>
Reproductive toxicity	<p>Reproductive toxicity: Rat; Oral; OECD Test Guideline 422 NOAEL (parents): 100 mg/kg Test substance: Phenol, 3-ethyl</p> <p>Assessment Reproductive toxicity: Based on available data, the classification criteria are not met.</p> <p>Teratogenicity: Rat; Oral; NOAEL (teratogen): 100 mg/kg Category approach</p> <p>Assessment teratogenicity: Based on available data, the classification criteria are not met.</p>
STOT - single exposure	The substance or mixture is not classified as specific target organ toxicant, single exposure.
STOT - repeated exposure	. The substance or mixture is not classified as specific target organ toxicant, repeated exposure.
Aspiration toxicity	Not applicable
Carcinogenicity	Assessment carcinogenicity:

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Contains no ingredient listed as a carcinogen

SECTION 12 ECOLOGICAL INFORMATION

Aquatic toxicity Toxic to aquatic life. Toxic to aquatic life with long lasting effects.

Toxicity to fish LC50 (Pimephales promelas (fathead minnow)) 96 hours: > 10 - 100 mg/l
 Test substance: Phenol, 4-Ethyl-
 (literature value)

LC50 (Pimephales promelas (fathead minnow)) 96 hours: > 10 - 100 mg/l
 Test substance: 2,4-Dimethylphenol
 (literature value)

Toxicity to aquatic invertebrates EC50 (Daphnia magna (Water flea)) 48 hours: > 1 - 10 mg/l
 Test substance: Ethylphenol isomer mixture

EC50 (Daphnia magna (Water flea)) 48 hours: > 1 - 10 mg/l
 Test substance: Xylenol isomer mixture

Toxicity to algae ErC50 (Pseudokirchneriella subcapitata (green algae)) 72 hours: > 10 - 100 mg/l
 Test substance: Xylenol isomer mixture

NOErC (Pseudokirchneriella subcapitata (green algae)) 72 hours: > 1 - 10 mg/l
 Test substance: Xylenol isomer mixture

ErC50 (Pseudokirchneriella subcapitata (green algae)) 72 hours: > 10 - 100 mg/l
 Test substance: Ethylphenol isomer mixture

NOErC (Pseudokirchneriella subcapitata (green algae)) 72 hours: > 1 - 10 mg/l
 Test substance: Ethylphenol isomer mixture

Chronic toxicity to fish NOEC (Pimephales promelas (fathead minnow)) 32 d: > 1 - 10 mg/l
 Test substance: 2,4-Dimethylphenol
 (literature value)

Chronic toxicity to aquatic invertebrates NOEC (Daphnia magna (Water flea)) 21 d: > 0.1 - 1 mg/l
 Test substance: 2,4-Dimethylphenol
 (literature value)

Biodegradation Inherently biodegradable.
 OECD Test Guideline 302B
 Test substance: 2,4-Dimethylphenol

Inherently biodegradable.
 OECD Test Guideline 302B

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Test substance: 2,5-xylenol

Inherently biodegradable.
OECD Test Guideline 302B
Test substance: 3,5-xylenol

Readily biodegradable.
OECD Test Guideline 301B (28 d): > 60 %
Test substance: Ethylphenol isomer mixture

Bioaccumulative potential No data available

Mobility in soil No data available

Other adverse effects No data available

SECTION 13 DISPOSAL CONSIDERATIONS

Waste Code 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.

Disposal methods Must be incinerated in a suitable incineration plant holding a permit delivered by the competent authorities. Dispose of only in accordance with local, state, and federal regulations. Do not contaminate any lakes, streams, ponds, groundwater or soil.

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 reconitioner, or properly disposed.

SECTION 14 TRANSPORT INFORMATION

DOT UN 3430, Xylenols, liquid, 6.1, II
RQ = 100 lbs. (2,4-xylenol)

IATA UN 3430, Xylenols, liquid, 6.1, II
RQ = 100 lbs. (2,4-xylenol)
ERG Code: 6L

IMDG UN 3430, Xylenols, liquid, 6.1, II, Marine pollutant (2,4-xylenol)
RQ = 100 lbs. (2,4-xylenol)
EmS No.F-A, S-A

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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

<u>Components</u>	<u>CAS-No.</u>
Phenol, 2,4-dimethyl	105-67-9
Phenol, 2,5-dimethyl	95-87-4
Phenol, 4-ethyl	123-07-9
Phenol, 3-ethyl	620-17-7
Phenol, 2,3-dimethyl	526-75-0
Phenol, 3,5-dimethyl	108-68-9
Phenol, 3,4-dimethyl	95-65-8
Phenol, trimethyl	26998-80-1

SARA 302 Status

<u>Components</u>	<u>CAS-No.</u>	<u>Weight percent</u>
No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.		

SARA 311/312 Classification

Flammable liquids, Acute toxicity, Skin corrosion, Serious eye damage, Skin sensitisation

SARA 313 Chemical

<u>Components</u>	<u>CAS-No.</u>	<u>Weight percent</u>
Phenol, 2,4-dimethyl	105-67-9	20 - 50 %
Naphthalene	91-20-3	< 200 PPM
o-Toluidine	95-53-4	< 50 PPM

US. EPA CERCLA Hazardous Substances (40 CFR 302)

<u>Components</u>	<u>Reportable Quantity</u>	<u>Weight percent</u>
Phenol, 2,4-dimethyl	100 LB	20 - 50 %
Naphthalene	100 LB	< 200 PPM
o-Toluidine	100 LB	< 50 PPM

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INTERNATIONAL REGULATIONS**WHMIS Classification**

Flammable liquids	Category 4
Acute toxicity (Oral)	Category 4
Acute toxicity (Dermal)	Category 3
Skin corrosion	Category 1B
Serious eye damage	Category 1
Skin sensitisation	Category 1
Acute aquatic toxicity	Category 2
Chronic aquatic toxicity	Category 2

European Union

Classification according to Regulation (EU) 1272/2008.

Acute toxicity (Oral), Category 4
 Acute toxicity (Dermal), Category 3
 Skin corrosion, Category 1
 Serious eye damage, Category 1
 Skin sensitisation, Category 1
 Chronic aquatic toxicity, Category 2

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	Not listed
Canada. Non-Domestic Substance Listing (NDSL) This product contains one or several components listed in the Canadian NDSL.	Not listed
Philippines. Inventory of Chemicals / Chemical Substances (PICCS)	Not listed
Korea. Existing Chemicals Inventory (KECI)	Not 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)	Not listed
Switzerland. Inventory of Notified New Substances (CHINV)	Listed
Taiwan. National Existing Chemical Inventory (NECI)	Listed

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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

Naphthalene
o-Toluidine

CAS-No.

91-20-3
95-53-4

Sasol does not specifically analyze for CA Prop 65-listed chemicals. However, through process knowledge, the components listed above may be present at detectable quantities. Sasol's manufacturing process is designed to minimize impurities which would include such substances.

SECTION 16 OTHER INFORMATION

HAZARD RATINGS

	<u>Health</u>	<u>Flammability</u>	<u>Physical Hazard/ Instability</u>
HMIS®	3	2	0
NFPA	3	2	0

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