

Creation Date 19-Mar-2015

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Revision Number 1

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

1.1. Product identification

Product Description: Cat No. : Synonyms CAS-No EC-No. Molecular Formula	<u>Trimethylsilanol</u> 458570000; 458570050; 458570250; 458571000 Hydroxytrimethylsilane 1066-40-6 EEC No. 213-914-1 C3 H10 O Si			
1.2. Relevant identified uses of the	substance or mixture and uses advised against			
Recommended Use Uses advised against	Laboratory chemicals. No Information available			
1.3. Details of the supplier of the s	1.3. Details of the supplier of the safety data sheet			
Company	Acros Organics BVBA Janssen Pharmaceuticalaan 3a 2440 Geel, Belgium			
E-mail address	begel.sdsdesk@thermofisher.com			
1.4. Emergency telephone number	For information US call: 001-800-ACROS-01 / Europe call: +32 14 57 52 11 Emergency Number US: 001-201-796-7100 / Europe: +32 14 57 52 99 CHEMTREC Tel. No. US: 001-800-424-9300 / Europe: 001-703-527-3887			
	SECTION 2: HAZARDS IDENTIFICATION			

2.1. Classification of the substance or mixture

CLP Classification - Re	gulation (EC) No 1272/2008		
<u>Physical hazards</u> Flammable liquids		Category 2	
Health hazards Based on available data, the classification criteria are not met			
Environmental hazards Based on available data, the classification criteria are not met			
<u>Classification according</u> Symbol(s) R-phrase(s)	g to EU Directives 67/548/EEC or 1999/45/B F - Highly flammable R11 - Highly flammable	EC	

For the full text of the R-phrases and H-Statements mentioned in this Section, see Section 16.

2.2. Label elements

Trimethylsilanol



Signal Word

Danger

Hazard Statements

H225 - Highly flammable liquid and vapor

Precautionary Statements

P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking P403 + P233 - Store in a well-ventilated place. Keep container tightly closed

2.3. Other hazards

No information available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Component	CAS-No	EC-No.	Weight %	CLP Classification - Regulation (EC) No 1272/2008	DSD Classification - 67/548/EEC
Hydroxytrimethylsilane	1066-40-6	EEC No. 213-914-1	>95	Flam. Liq. 2 (H225)	F; R11

For the full text of the R-phrases and H-Statements mentioned in this Section, see Section 16.

SECTION 4: FIRST AID MEASURES

4.1. Description of 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.	
Ingestion	Clean mouth with water and drink afterwards plenty of water.	
Inhalation	Move to fresh air.	
Protection of First-aiders	Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.	

4.2. Most important symptoms and effects, both acute and delayed

Breathing difficulties. Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting

4.3. Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable Extinguishing Media

Cool closed containers exposed to fire with water spray.

Extinguishing media which must not be used for safety reasons No information available.

5.2. Special hazards arising from the substance or mixture

Flammable. Containers may explode when heated. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back.

Hazardous Combustion Products

Carbon monoxide (CO), Carbon dioxide (CO2), Silicon dioxide. **5.3. Advice for firefighters**_____

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Remove all sources of ignition. Take precautionary measures against static discharges. Use personal protective equipment.

6.2. Environmental precautions

See Section 12 for additional ecological information. Do not flush into surface water or sanitary sewer system.

6.3. Methods and material for containment and cleaning up

Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.

6.4. Reference to other sections

Refer to protective measures listed in Sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Keep away from open flames, hot surfaces and sources of ignition. Use only non-sparking tools. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. Take precautionary measures against static discharges.

7.2. Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition.

7.3. Specific end use(s)

Use in laboratories

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Exposure limits

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region

specific regulatory bodies

Biological limit values

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

Monitoring methods

BS EN 14042:2003 Title Identifier: Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents.

MDHS70 General methods for sampling airborne gases and vapours

MDHS 88 Volatile organic compounds in air. Laboratory method using diffusive samplers, solvent desorption and gas chromatography

MDHS 96 Volatile organic compounds in air - Laboratory method using pumped solid sorbent tubes, solvent desorption and gas chromatography

Derived No Effect Level (DNEL) No information available

Route of exposure	Acute effects (local)	Acute effects	Chronic effects	Chronic effects
		(systemic)	(local)	(systemic)
Oral				
Dermal				
Inhalation				

Predicted No Effect Concentration No information available. **(PNEC)**

8.2. Exposure controls

Engineering Measures

Ensure adequate ventilation, especially in confined areas. Use explosion-proof electrical/ventilating/lighting/equipment. Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source

ye Protection land Protection	, , ,	lasses with side-shie /e gloves	lds (European standar	d - EN 166)
Glove material Nitrile rubber	Breakthrough time See manufacturers	Glove thickness	EU standard EN 374	Glove comments (minimum requirement)
Neoprene	recommendations			(minimum requirement)
Natural rubber PVC				

Inspect gloves before use.

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information)

Ensure gloves are suitable for the task: Chemical compatability, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion.

Remove gloves with care avoiding skin contamination.

Respiratory Protection

When workers are facing concentrations above the exposure limit they must use

	appropriate certified respirators. To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained properly
Large scale/emergency use	Use a NIOSH/MSHA or European Standard EN 136 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced
	Recommended Filter type: Organic gases and vapours filter Type A Brown conforming to EN14387
Small scale/Laboratory use	Use a NIOSH/MSHA or European Standard EN 149:2001 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.
	Recommended half mask:- Valve filtering: EN405; or; Half mask: EN140; plus filter, EN 141
	When RPE is used a face piece Fit Test should be conducted
Hygiene Measures	Handle in accordance with good industrial hygiene and safety practice.
Environmental exposure controls	No information available.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance Physical State	Colorless Liquid	
Odor Odor Threshold pH Melting Point/Range Softening Point Boiling Point/Range Flash Point Evaporation Rate Flammability (solid,gas) Explosion Limits	No information available No data available No information available -12 °C / 10.4 °F No data available 98 °C / 208.4 °F 4 °C / 39.2 °F No data available Not applicable No data available	Method - No information available Liquid
Vapor Pressure Vapor Density Specific Gravity / Density Bulk Density Water Solubility Solubility in other solvents	0.19 hPa @25°C No data available 0.814 Not applicable Insoluble No information available	(Air = 1.0) Liquid
Partition Coefficient (n-octanol/wat Component Hydroxytrimethylsilane Autoignition Temperature Decomposition Temperature Viscosity Explosive Properties Oxidizing Properties	er) log Pow 1.62 No data available No data available 4 mPas@ 25°C No information available No information available	Vapors may form explosive mixtures with air
9.2. Other information Molecular Formula Molecular Weight	C3 H10 O Si 90.2	

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

Trimethylsilanol

None known, based on information available

10.2. Chemical stability	No information available
10.3. Possibility of hazardous react	ions
Hazardous Polymerization	No information available.
Hazardous Reactions	No information available.
10.4. Conditions to avoid	Keep away from open flames, hot surfaces and sources of ignition.
10.5. Incompatible materials	Oxidizing agents.

10.6. Hazardous decomposition products

Carbon monoxide (CO). Carbon dioxide (CO2). Silicon dioxide.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Product Information

(a) acute toxicity;

Trimethylsilanol

Oral	Based on available data, the classification criteria are not met
Dermal	No data available
Inhalation	No data available

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Hydroxytrimethylsilane	2800 mg/kg (Rat)	2800 mg/kg (Rat)	

(b) skin corrosion/irritation;	No data available
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(c) serious eye damage/irritation;	No data available
(d) respiratory or skin sensitization Respiratory Skin	No data available No data available
(e) germ cell mutagenicity;	No data available
(f) carcinogenicity;	No data available
	There are no known carcinogenic chemicals in this product
(g) reproductive toxicity;	No data available
(h) STOT-single exposure;	No data available
(i) STOT-repeated exposure;	No data available
Target Organs	No information available.
(j) aspiration hazard;	No data available
Symptoms / effects,both acute and delayed	Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Trimethylsilanol

Ecotoxicity effectsContains no substances known to be hazardous to the environment or that are not
degradable in waste water treatment plants.

12.2.	Persistence	and	degradability

Persistence	Insoluble in water, Persistence is unlikely.					
12.3. Bioaccumulative potential	May have some potential to bioaccumulate					
Component	log Pow Bioconcentration factor (BCF)					
Hydroxytrimethylsilane	1.62	No data available				
12.4. Mobility in soil	Spillage unlikely to penetrate soil The product is insoluble and floats on water Is not likely mobile in the environment due its low water solubility.					
12.5. Results of PBT and vPvB assessment	No data available for assessment.					
<u>12.6. Other adverse effects</u> Endocrine Disruptor Information Persistent Organic Pollutant Ozone Depletion Potential	This product does not contain any known or su This product does not contain any known or su This product does not contain any known or su	ispected substance				

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste from Residues / Unused Products	Waste is classified as hazardous. Dispose of in accordance with the European Directives on waste and hazardous waste. Dispose of in accordance with local regulations.
Contaminated Packaging	Dispose of this container to hazardous or special waste collection point. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep product and empty container away from heat and sources of ignition.
European Waste Catalogue (EWC)	According to the European Waste Catalogue, Waste Codes are not product specific, but application specific.
Other Information	Waste codes should be assigned by the user based on the application for which the product was used. Do not dispose of waste into sewer. Can be incinerated, when in compliance with local regulations.

SECTION 14: TRANSPORT INFORMATION

IMDG/IMO

<u>14.1. UN number</u>	UN1993
14.2. UN proper shipping name	Flammable liquid, n.o.s
14.3. Transport hazard class(es)	3
14.4. Packing group	II

ADR

14.1. UN number	UN1993
14.2. UN proper shipping name	FLAMMABLE LIQUID, N.O.S
14.3. Transport hazard class(es)	3
14.4. Packing group	II

<u>IATA</u>

14.1. UN number	UN1993
14.2. UN proper shipping name	FLAMMABLE LIQUID, N.O.S
14.3. Transport hazard class(es)	3
14.4. Packing group	II

14.5. Environmental hazards No hazards identified

14.6. Special precautions for user No special precautions required

14.7. Transport in bulk according to Not applicable, packaged goods Annex II of MARPOL73/78 and the IBC Code

SECTION 15: REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

International Inventories

Australia X = listed China Canada The product is classified and labeled according to EC directives or corresponding national laws The product is classified and labeled in accordance with Directive 1999/45/EC Europe TSCA Korea Philippines Japan

accordance with Directive 1999/45/EC Europe 15CA Korea Philippines Japan											
Component	EINECS	ELINCS	NLP	TSCA	DSL	NDSL	PICCS	ENCS	IECSC	AICS	KECL
Hydroxytrimethylsilane	213-914-1	-		Х	Х	-	Х	Х	Х	Х	Х

National Regulations

Component	Germany - Water Classification (VwVwS)	Germany - TA-Luft Class
Hydroxytrimethylsilane	WGK 1	

Take note of Control of Substances Hazardous to Health Regulations (COSHH) 2002 and 2005 Amendment.

Take note of Dir 94/33/EC on the protection of young people at work

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

15.2. Chemical safety assessment

A Chemical Safety Assessment/Report (CSA/CSR) has not been conducted

SECTION 16: OTHER INFORMATION

Full text of R-phrases referred to under sections 2 and 3

R11 - Highly flammable

Full text of H-Statements referred to under sections 2 and 3

H225 - Highly flammable liquid and vapor

Legend

CAS - Chemical Abstracts Service	TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances PICCS - Philippines Inventory of Chemicals and Chemical Substances IECSC - Chinese Inventory of Existing Chemical Substances KECL - Korean Existing and Evaluated Chemical Substances	
 WEL - Workplace Exposure Limit ACGIH - American Conference of Governmental Industrial Hygienists DNEL - Derived No Effect Level RPE - Respiratory Protective Equipment LC50 - Lethal Concentration 50% NOEC - No Observed Effect Concentration PBT - Persistent, Bioaccumulative, Toxic 	 TWA - Time Weighted Average IARC - International Agency for Research on Cancer PNEC - Predicted No Effect Concentration LD50 - Lethal Dose 50% EC50 - Effective Concentration 50% POW - Partition coefficient Octanol:Water vPvB - very Persistent, very Bioaccumulative
ADR - European Agreement Concerning the International Carriage of	ICAO/IATA - International Civil Aviation Organization/International

Dangerous Goods by Road IMO/IMDG - International Maritime Organization/International Maritime ICAO/IATA - International Civil Aviation Organization/International Air Transport Association

Trimethylsilanol

Dangerous Goods Code

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 $\ensuremath{\textbf{OECD}}$ - Organisation for Economic Co-operation and Development $\ensuremath{\textbf{BCF}}$ - Bioconcentration factor

MARPOL - International Convention for the Prevention of Pollution from Ships ATE - Acute Toxicity Estimate

VOC - Volatile Organic Compounds

Key literature references and sources for data

Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

Training Advice

Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hygiene.

Use of personal protective equipment, covering appropriate selection, compatibility, breakthrough thresholds, care, maintenance, fit and standards.

First aid for chemical exposure, including the use of eye wash and safety showers.

Creation Date	19-Mar-2015
Revision Date	19-Mar-2015
Revision Summary	Not applicable.

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

Disclaimer

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of Safety Data Sheet