

Safety Data Sheet per OSHA HazCom 2012

1 Identification Product identifier Product name: (Trimethylsilyl)acetic acid Stock number: L03903 CAS Number: 2345-38-2 EC number: 219-067-4 Relevant identified uses of the substance or mixture and uses advised against. Identified use: SU24 Scientific research and development Details of the supplier of the safety data sheet Manufacturer/Supplier: Alfa Aesar Thermo Fisher Scientific Chemicals, Inc. Inerrito Fisher Scheman C. 30 Bond Street Ward Hill, MA 01835-8099 Tel: 800-343-0660 Fax: 800-322-4757 Email: tech @alfa.com www.alfa.com Information Department: Health, Safety and Environmental Department Emergency telephone number: During normal business hours (Monday-Friday, 8am-7pm EST), call (800) 343-0660. After normal business hours, call Carechem 24 at (866) 928-0789. 2 Hazard(s) identification Classification of the substance or mixture in accordance with 29 CFR 1910 (OSHA HCS) ! GHS07 Skin Irrit. 2 H315 Causes skin irritation. Eye Irrit. 2A H319 Causes serious eye irritation. STOT SE 3 H335 May cause respiratory irritation. Hazards not otherwise classified No information known. Label elements GHS label elements The product is classified and labeled in accordance with 29 CFR 1910 (OSHA HCS) Hazard pictograms GHS07 Signal word Warning Hazard statements H315 Causes skin irritation. H319 Causes serious eye irritation. H335 May cause respiratory irritation. Precautionary statements P261 Avoid breathing dust/fume/gas/mist/vapours/spray. P280 Wear protective gloves/protective clothing/eye protection/face protection. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Store locked up. Dispose of contents/container in accordance with local/regional/national/international regulations. P405 WHMIS classification D2B - Toxic material causing other toxic effects Ţ Classification system HMIS ratings (scale 0-4) (Hazardous Materials Identification System) Health (acute effects) = 1Flammàbility = 1 TIVITY 1 Physical Hazard = 1 Other hazards Results of PBT and vPvB assessment PBT: Not applicable. vPvB: Not applicable 3 Composition/information on ingredients Chemical characterization: Substances CAS# Description: 2345-38-2 (Trimethylsilyl)acetic acid Identification number(s): EC number: 219-067-4 4 First-aid measures Description of first aid measures After inhalation Supply fresh air. If required, provide artificial respiration. Keep patient warm. Seek immediate medical advice. After skin contact Immediately wash with water and soap and rinse thoroughly. (Contd. on page 2)

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After swallowing Seek medical treatme Information for doctor Most important symptoms and effects	r several minutes under running water. Then consult a doctor. ent. s, both acute and delayed No further relevant information available. attention and special treatment needed No further relevant information available.	(Contd. of page 1)	
5 Fire-fighting measures Extinguishing media Suitable extinguishing agents Carbon Special hazards arising from the sub- If this product is involved in a fire, the fo Carbon monoxide and carbon dioxide Silicon oxide Advice for firefighters Protective equipment: Wear self-contained respirator. Wear fully protective impervious suit.	n dioxide, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam. stance or mixture Illowing can be released:		
6 Accidental release measures Personal precautions, protective equi Wear protective equipment. Keep unpro Ensure adequate ventilation Environmental precautions: Do not al Methods and material for containmen Prevention of secondary hazards: Ke Reference to other sections See Section 7 for information on safe ha See Section 7 for information on person See Section 13 for disposal information.	ntected persons away. Iow material to be released to the environment without proper governmental permits. I t and cleaning up: Ensure adequate ventilation. ep away from ignition sources. Andling Ial protection equipment.		
Conditions for safe storage, including Storage	explosions and fires: No information known. g any incompatibilities ns and receptacles: No special requirements. nmon storage facility: nditions: ed containers.		
8 Exposure controls/personal protection Additional information about design of technical systems: Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute. Control parameters Components with limit values that require monitoring at the workplace: Not required. Additional information: No data Exposure controls Personal protective equipment General protective and hygienic measures The usual precautionary measures for handling chemicals should be followed. Keep away from foodstuffs, beverages and feed. Remove all solied and contaminated clothing immediately. Wash hands before breaks and at the end of work. Avoid contact with the eyes and stim. Maintain an ergonomically appropriate working environment. Breathing equipment: Use suitable respirator when high concentrations are present. Protection of hands: Impervious gloves Check protective gloves prior to each use for their proper condition. The descinon of glove material (in minutes) Not determined Exposition: Protection: Protective work clothing.			
9 Physical and chemical properties	<u> </u>		
Information on basic physical and ch General Information			
Appearance: Form:	Salid		
Color:	Solid White Not determined		
Odor: Odor threshold:	Not determined Not determined.		
pH-value:	Not applicable.	(Contra or research)	
		(Contd. on page 3)	

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		(Contd. of page 2)		
Change in condition Melting point/Melting range:	40-42 °C (104-108 °F)			
Boiling point/Boiling range: Sublimation temperature / start:	90-95 °C (194-203 °F) (10 mmHg) Not determined			
Flash point:	95 °C (203 °F)			
Flammability (solid, gaseous) Ignition temperature:	Not determined. Not determined			
Decomposition temperature: Auto igniting:	Not determined Not determined.			
Danger of explosion:	Product does not present an explosion hazard.			
Explosion limits: Lower:	Not determined			
Upper: Vapor pressure:	Not determined Not applicable.			
Density: Relative density	Not determined Not determined			
Vapor density Evaporation rate	Not applicable. Not applicable.			
Solubility in / Miscibility with				
Water: Partition coefficient (n-octanol/water): Viscosity:	Slightly soluble : Not determined.			
Viscosity: dynamic: kinematic:	Not applicable.			
kinematic: Other information	Not applicable. No further relevant information available.			
10 Stability and reactivity				
Reactivity No information known				
Chemical stability Stable under recomn Thermal decomposition / conditions to	mended storage conditions. to be avoided: Decomposition will not occur if used and stored according to specifications.			
Possibility of hazardous reactions No Conditions to avoid No further relevant	o dangerous reactions known			
Incompatible materials:				
Oxidizing agents Water/moisture				
Hazardous decomposition products: Carbon monoxide and carbon dioxide				
Silicon oxide				
11 Toxicological information				
Information on toxicological effects Acute toxicity: No effects known.				
LD/LC50 values that are relevant for cl	assification:			
Oral LD50 3000 mg/kg (rat) Skin irritation or corrosion: Causes ski				
Eye irritation or corrosion: Causes ser	rious eye irritation.			
Sensitization: No sensitizing effects kno Germ cell mutagenicity: No effects kno Carcinogenicity: No classification data (own. on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.			
Reproductive toxicity: No effects know	VD.			
Specific target organ system toxicity -	- repeated exposure: No effects known. - single exposure: May cause respiratory irritation.			
Aspiration hazard: No effects known. Subacute to chronic toxicity: No effects known.				
Subacute to chronic toxicity: Organic silicon compounds are generally	Organic silicon compounds are generally of low toxicity. Those exhibiting moisture sensitivity may be strongly irritating or corrosive on contact.			
U	To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.			
12 Ecological information				
Toxicity Aquatic toxicity: No further relevant info	ormation available.			
Persistence and degradability No furth Bioaccumulative potential No further re	her relevant information available. relevant information available.			
Mobility in soil No further relevant inforr Additional ecological information:	mation available.			
General notes:	the anvironment without proper acyormantal permite			
Do not allow undiluted product or large q	the environment without proper governmental permits. quantities to reach ground water, water course or sewage system.			
Avoid transfer into the environment. Results of PBT and vPvB assessment	t			
PBT: Not applicable. vPvB: Not applicable.				
Other adverse effects No further releva	ant information available.			
13 Disposal considerations				
	or national regulations to ensure proper disposal.			
Uncleaned packagings: Recommendation: Disposal must be ma				
14 Transport information				
Not a hazardous material for transportation	ion.			
UN-Number DOT, IMDG, IATA	None			
		(Contd. on page 4)		

Product name: (TrimethyIsilyI)acetic acid				
		(Contd. of page 3)		
UN proper shipping name DOT, IMDG, IATA	None			
Transport hazard class(es)				
DOT, ADR, IMDG, IATA Class	None			
Packing group DOT, IMDG, IATA	None			
Environmental hazards:	Not applicable.			
Special precautions for user	Not applicable.			
Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable.				
Transport/Additional information:	Not dangerous according to the above specifications.			
DOT Marine Pollutant (DOT):	No			
15 Pequiptory information				

15 Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture GHS label elements The product is classified and labeled in accordance with 29 CFR 1910 (OSHA HCS) Hazard pictograms



Signal word Warning Hazard statements H315 Causes skin irritation. H319 Causes serious eye irritation. H335 May cause respiratory irritation. Precautionary statements Precautionary statements P261 Avoid breathing dust/fume/gas/mist/vapours/spray. P280 Wear protective gloves/protective clothing/eye protection/face protection. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. P405 Store locked up. Dispose of contents/container in accordance with local/regional/national/international regulations. P501 National regulations National regulations All components of this product are listed in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical substance Inventory. All components of this product are listed on the Canadian Non-Domestic Substances List (NDSL). SARA Section 313 (specific toxic chemical listings) Substance is not listed. California Proposition 65 Prop 65 - Chemicals known to cause cancer Substance is not listed. Prop 65 - Developmental toxicity Substance is not listed. Prop 65 - Developmental toxicity, female Substance is not listed. Prop 65 - Developmental toxicity, male Substance is not listed. Prop 65 - Developmental toxicity, male Substance is not listed. Prop 65 - Developmental toxicity, male Substance is not listed. Information about limitation of use: For use only by technically qualified individuals. Other regulations, limitations and prohibitive regulations Substance of Very High Concern (SVHC) according to the REACH Regulations (EC) No. 1907/2006. Substance is not listed. The conditions of restrictions according to Article 67 and Annex XVII of the Regulation (EC) No 1907/2006 (REACH) for the manufacturing, placing on the market and use survey the characteristics. market and use must be observed. Substance is not listed Annex XIV of the REACH Regulations (requiring Authorisation for use) Substance is not listed. Chemical safety assessment: A Chemical Safety Assessment has not been carried out. 16 Other information Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user. conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user. Department issuing SDS: Global Marketing Department Date of preparation / last revision 11/23/2015 / -Abbreviations and acconyms: RID: Reglement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail) ATA-DGE: Dangerous Goods Regulations by the "International Air Transport Association" (IATA) CAO: International Civil Aviation Organization CAO: International Maritime Code for Dangerous Goods DOT: US Department of Transport Association EINECS: European Inventory of Existing Commercial Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society) HMIS: Hazardous Materials Identification System (Canada) LC50: Lethal concentration, 50 percent PVPB: very Persistent and very Bioaccumulative ACGIH:: American Conference of Governmental Industrial Hygienists (USA) OSI-A: Occupational Safety and Health Administration (USA) MTP: National Toxicology Program (USA) MTP: National Toxicology Program (USA) MTP: National Toxicology Program (USA) USA