Revision: 22.0	7.2010

Printing date 22.07.2010	Revision: 22.07.2010
1 Identification of substance	
Product details	
Trade name	(4-Fluorophenylthio)acetic acid
Stock number:	A19658
Manufacturer/Supplier:	Alfa Aesar GmbH & Co.KG Benzstrasse 3 E-mail: gcat@matthey.com
Informing depertments	D-76185 Karlsruhe / Germany www.alfa-chemcat.com
Informing department: Emergency information:	Product safety department. Giftnotruf Universität Mainz / Poison Information Center Mainz
	www.giftinfo.uni-mainz.de Telefon:+49(0)6131/19240
2 Hazards identification	
Hazard designation:	Xi Irritant
Information pertaining to particular dangers	
Information pertaining to particular dangers for man and environment GHS label elements	R 36/37/38 Irritating to eyes, respiratory system and skin.
	Varning
	H315 - Causes skin irritation.
	H319 - Causes serious eye irritation. H335 - May cause respiratory irritation.
Prevention: Response:	P261 Avoid breathing dust/fume/gas/mist/vapours/spray. P302+P352 IF ON SKIN: Wash with plenty of soap and water. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if
	P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Storage:	P321 Specific treatment (see on this label). P405 Store locked up.
Disposal:	P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
3 Composition/information on ingredient	S
Chemical characterization: Designation: (CAS#)	(4-Fluorophenylthio)acetic acid (CAS# 332-51-4): 100%
4 First aid measures After inhalation	Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms
	persist. Seek immediate medical advice.
After skin contact	Instantly wash with water and soap and rinse thoroughly.
After eye contact	Seek immediate medical advice. Rinse opened eye for several minutes under running water. Then consult doctor.
After swallowing	Seek immediate medical advice.
5 Fire fighting measures	
Suitable extinguishing agents Special hazards caused by the material, its	CO2, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.
products of combustion or flue gases:	Can be released in case of fire: Carbon monoxide and carbon dioxide
	Hydrogen fluoride (HF) Sulphur oxides (SOx)
Protective equipment:	Wear self-contained breathing apparatus. Wear full protective suit.
6 Accidental release measures	
Person-related safety precautions:	Wear protective equipment. Keep unprotected persons away.
Measures for environmental protection:	Ensure adequate ventilation Do not allow material to be released to the environment without proper governmental permits.
Measures for cleaning/collecting: Additional information:	Ensure adequate ventilation
	See Section 7 for information on safe handling See Section 8 for information on personal protection equipment. See Section 13 for information on disposal.
7 Handling and storage Handling	
Information for safe handling:	Keep containers tightly sealed. Store in cool, dry place in tightly closed containers.
Information about protection and inst	Ensure good ventilation/exhaustion at the workplace.
Information about protection against explosions and fires:	Keep ignition sources away - Do not smoke.
Storage Requirements to be met by storerooms and	
containers: Information about storage in one common	No special requirements.
storage facility:	Store away from oxidizing agents.
Further information about storage conditions:	Keep container tightly sealed. Store in cool, dry conditions in well sealed containers.
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8 Exposure controls and personal protec Additional information about design of	นอก
technical systems:	Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity
Components with critical values that require	of at least 100 feet per minute.
monitoring at the workplace: Additional information:	Not required. No data
Personal protective equipment	
General protective and hygienic measures	The usual precautionary measures should be adhered to in handling the chemicals. Keep away from foodstuffs, beverages and food.
	Keep away from foodstuffs, beverages and food. Instantly remove any soiled and impregnated garments. Wash hands during breaks and at the end of the work.
Breathing equipment:	Avoid contact with the eyes and skin. Use breathing protection with high concentrations.
Liouting equipment.	(Contd. on page 2)

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Protection of hands: Material of gloves Eye protection:	(Contd. of page 1) The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. Safety glasses
Body protection:	Face protection Protective work clothing.
9 Physical and chemical properties: General Information	
Form: Smell:	Crystalline Not determined
Change in condition Melting point/Melting range: Boiling point/Boiling range: Sublimation temperature / start:	76-79°C Not determined Not determined
Flash point:	Not applicable
Ignition temperature:	Not determined
Decomposition temperature: Danger of explosion:	Not determined Product is not explosive
Critical values for explosion: Lower: Upper:	Product is not explosive. Not determined Not determined
Steam pressure:	Not determined
Density	Not determined
10 Stability and reactivity Thermal decomposition / conditions to be avoided: Materials to be avoided: Dangerous reactions: Dangerous products of decomposition:	No decomposition if used and stored according to specifications. Oxidizing agents No dangerous reactions known Carbon monoxide and carbon dioxide Hydrogen fluoride Sulphur oxides (SOx)
11 Toxicological information Acute toxicity: Primary irritant effect: on the skin: on the eye: Sensitization: Additional toxicological information:	Irritant for skin and mucous membranes. Irritant effect. No sensitizing effect known. To the best of our knowledge the acute and chronic toxicity of this substance is not fully known. No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.
12 Ecological information: Additional ecological information: General notes:	Water hazard class 1 (Self-assessment): slightly hazardous for water. Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system. Do not allow material to be released to the environment without proper governmental permits.
13 Disposal considerations Product: Recommendation	Consult state, local or national regulations for proper disposal. Hand over to disposers of hazardous waste. Must be specially treated under adherence to official regulations.
Uncleaned packagings: Recommendation:	Disposal must be made according to official regulations.
14 Transport information	
Land transport ADR/RID and GGVS/GGVE (ADR/RID-GGVS/E Class:	cross-border/domestic) None
Maritime transport IMDG/GGVSea: IMDG/GGVSea Class: Marine pollutant:	None No
Air transport ICAO-TI and IATA-DGR: ICAO/IATA Class:	None
Transport/Additional information:	Not dangerous according to the above specifications.
15 Regulatory information Designation according to EC guidelines: Code letter and hazard designation of product:	Xi Irritant
Risk phrases:	36/37/38 Irritating to eyes, respiratory system and skin.
Safety phrases:	26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. 37 Wear suitable gloves.
National regulations	
Information about limitation of use:	For use only by technically qualified individuals. Employment restrictions concerning young persons must be observed. (Contd. on page 3) GB

GB

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	(Contd. of page 2)
Water hazard class:	Water hazard class 1 (Self-assessment): slightly hazardous for water.
16 Other information: Employers should use this information or this information to ensure proper use and not in conformance with this Material Saf	nly as a supplement to other information gathered by them, and should make independent judgement of suitability of I protect the health and safety of employees. This information is furnished without warranty, and any use of the product ety Data Sheet, or in combination with any other product or process, is the responsibility of the user.
Department issuing data specification Contact: Abbreviations and acronyms:	sheet: Health, Safety and Environmental Department. Zachariah Holt ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) RID: Réglement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail) IMDG: International Maritime Code for Dangerous Goods IATA: International Maritime Code for Dangerous Goods IATA: International Air Transport Association IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA) ICAO: International Instructions by the "International Civil Aviation Organization" (ICAO) GAS: Globally Harmonized System of Classification and Labelling of Chemicals CAS: Chemical Abstracts Service (division of the American Chemical Society)