Printing date 05.08.2010	Revision: 05.08.2010	
1 Identification of substance		
Product details		
Trade name	4-(Trifluoromethylthio)phenol	
Stock number:	B24996	
Manufacturer/Supplier:	Alfa Aesar GmbH & Co.KG Benzstrasse 3 E-mail: gcat@matthey.com	
	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 for man and environment	R 36/37/38 Irritating to eyes, respiratory system and skin.	
GHS label elements		
	Warning	
	H315 - Causes skin irritation. H319 - Causes serious eye irritation.	
Prevention:	H335 - May cause respirátory irritation	
Response:	P261 Avoid breathing dust/fume/gas/mist/vapours/spray. P262+P352 IF ON SKIN: Wash with plenty of soap and water. P262+P352 IF DEVES: Pieze courtievely with upter for covered minutes. Remove contact lenges 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. P321 Specific treatment (see on this label).	
Storage:	P405 Store locked up.	
Disposal:	P501 Dispose of contents/container in accordance with local/regional/national/international regulations.	
3 Composition/information on ingredients		
Chemical characterization:	1-(Trifluoromethylthio)phenol (CAS# 161-84 7): 100%	
Designation: (CAS#)	4-(Trifluoromethylthio)phenol (CAS# 461-84-7): 100%	
4 First aid measures		
After inhalation	Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.	
After skin contact	Seek immediate medical advice. Instantly wash with water and soap and rinse thoroughly.	
	Seek immediate medical advice.	
After eye contact After swallowing	Rinse opened eye for several minutes under running water. Then consult doctor. 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.	
Special hazards caused by the material, its products of combustion or flue gases:	Can be released in case of fire:	
products of compustion of flue guses.	Carbon monoxide and carbon dioxide	
	Hydrogen fluoride (HF) Sulphur oxides (SOx) Wear self-contained breathing apparatus.	
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.	
· · ·	Ensure adequate ventilation Do not allow material to be released to the environment without proper governmental permits.	
Measures for environmental protection: Measures for cleaning/collecting:	Ensure adequate ventilation.	
Additional information:	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:	Keen containers tightly sealed	
mornation of sale nationing:	Keep containers tightly sealed. Store in cool, dry place in tightly closed containers.	
Information about protection against	Ensure good ventilation/exhaustion at the workplace.	
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.	
8 Exposure controls and 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.	
Components with critical values that require monitoring at the workplace:	Not required.	
Additional information:	No data	
Personal protective equipment General protective and hygienic measures	The usual precautionary measures should be adhered to in handling the chemicals.	
General protective and hygienic measures	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.	
<u> </u>	(Contd. on page 2) GB	

	Nevision. 03.06.2010	
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Protection of hands: Material of gloves Penetration time of glove material 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. Impervious gloves Not determined Safety glasses	
Body protection:	Face protection Protective work clothing.	
9 Physical and chemical properties:		
General Information		
Form: Smell:	Powder Not determined	
Change in condition Melting point/Melting range: Boiling point/Boiling range: Sublimation temperature / start:	57-60°C Not determined Not determined	
Flash point:	Not applicable	
Ignition temperature:	Not determined Not determined	
Decomposition temperature: Danger of explosion:	Product is not explosive.	
Critical values for explosion: Lower: Upper:	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: Maritime transport IMDG/GGVSea:	None	
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	

Trade name 4-(Trifluoromethylthio)phenol

	(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 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.	
Department issuing data specification sheet Contact: Abbreviations and acronyms:	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: Règlement 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: International Civil Aviation Organization ICAO: International Instructions by the "International Air Transport Association" (IATA) ICAO: TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO) GHS: Globally Harmonized System of Classification and Labelling of Chemicals CAS: Chemical Abstracts Service (division of the American Chemical Society) GB