	according to 1907/2006/EC, Article 31
Printing date 24.08.2010	Revision: 24.08.2010
1 Identification of substance	
Product details	
Trade name Stock number:	<u>4-(Trifluoromethoxy)thiophenol</u> L18674
Manufacturer/Supplier:	Alfa Aesar GmbH & Co.KG
	Benzstrasse 3 E-mail: gcat@matthey.com D-76185 Karlsruhe / Germany www.alfa-chemcat.com
Informing department:	Product safety department
Emergency information:	Giftnotruf Universität Mainz / Poison Information Center Mainz www.giftinfo.uni-mainz.de Telefon:+49(0)6131/19240
2 Hazards identification	
Hazard designation:	
J	Xn Harmful
Information pertaining to particular dangers for man and environment	P 20/21/22 Harmful by inhalation in contact with akin and if awallowed
	R 20/21/22 Harmful by inhalation, in contact with skin and if swallowed. R 36/37/38 Irritating to eyes, respiratory system and skin.
GHS label elements	Varning
	H302 - Harmful if swallowed.
	H312 - Harmful in contact with skin. H332 - Harmful if inhaled.
	H315 - Causes skin irritation. H319 - Causes serious eye irritation.
Prevention:	H319 - Causes skin initiation. H319 - Causes serious eye irritation. H335 - May cause respiratory irritation. 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 proceed and easy to do. Continue rinsing.
Response:	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
	P321 Specific treatment (see on this label).
Storage: Disposal:	P405 Store locked up. P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
· · · · · · · · · · · · · · · · · · ·	
3 Composition/information on ingredient	S
Chemical characterization: Designation: (CAS#)	4-(Trifluoromethoxy)thiophenol (CAS# 169685-29-4): 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. 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	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:
,	Carbon monoxide and carbon dioxide Sulphur oxides (SOx)
	Hydrogen fluoride (HF) Hydrogen sulphide
Protective equipment:	Wear self-contained breathing apparatus. Wear full protective suit.
	יזיטמו זעון אוטנטטוזים טעוג.
6 Accidental release measures Person-related safety precautions:	Wear protective equipment. Keep upprotected percens away
Person-related safety precautions:	Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation
Measures for environmental protection: Measures for cleaning/collecting:	Do not allow material to be released to the environment without proper governmental permits. Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
	Dispose of contaminated material as waste according to item 13. 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:	Handle under dry protective gas.
, i i i i i i i i i i i i i i i i i i i	Keep containers tightly sealed.
Information about protection against	Store in cool, dry place in tightly closed containers. 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 air. Store away from oxidizing agents.
Further information about storage conditions:	Store under dry inert gas.
Sometions.	Keep container tightly sealed. Store in cool, dry conditions in well sealed containers.
	This product is air sensitive.

Trade name 4-(Trifluoromethoxy)thiophenol

8 Expositive controls and personal protection Properly coerting them had designed Protection a the vertage face velo additional information Personal protection Personal protecting Personal protection Personal protection Personal protection Perso		(Contd. of pag
Additional information about design of the final system Property congains demical fum hood designed for hazardous chemicals and having an average face velo of a final to be promote. Components with critical values that require Additional information: No data Period protective and hyginer, the protective and hyginer, experiod composition in the order of the work. No data Protective and hyginer, the protect	8 Exposure controls and personal protec	tion
technical systems: Property operating chemical functional designed for hazardous chemicals and having an average face velo Components with chick values that require monitoring at the workplace: Not required. Additional information: Not required. Personal protective equipment: The usual preasures should be adhered to in handling the chemicals. Advisor and information: Provide guipment: The usual preasures should be adhered to in handling the chemicals. Average your (Into foodballs, buyerages and food advisor and information: Provide guipment: The usual preasures should be adhered to in handling the chemicals. Average your (Into foodballs, buyerages and food advisor and your preasures and store advisor and your preasures and store advisor and your preasures and store advisor advisor advisor advisor advisor advisor advisor the selection of the store advisor ad		
moniforing at the workplace: Not required. Additional information: Not required. Personal protective adjustment Response protective adjustment Personal protective adjustment The usual procestive adjustment Personal protective adjustment Not required. Personal protective adjustment Avoid control to in handling the chemicals. Personal protective adjustment Avoid control to in handling the chemicals. Personal protective adjustment Avoid control to in handling the chemicals. Material of gloves The usual procestive adjustment Material of gloves The usual procestive adjustment Body protection: The usual procestive work doling. Personal procestive adjustment Provide gloves protection: Personal protection: Provide gloves Personal protection: Cloud estimate		Properly operating chemical fume hood designed for hazardous chemicals and having an average face veloc of at least 100 feet per minute.
Additional Information: No data Personal processive equipment: The subject measures should be afford to in handling the chemicals. Personal processive equipment: The subject measures should be afford to in handling the chemicals. Presenting equipment: The subject measures should be afford to in handling the chemicals. Presenting equipment: The subject measures should be afford to in handling the chemicals. Presenting equipment: The subject measures should be afford to in handling the chemicals. Material of gloves The subject measures should be afford to in handling the chemicals. Penetration time of glove material proceedies. The subject measures should be afford to in handling the chemical proceedies. Penetration time of glove material proceedies. Protection: Protection: Physical and achemical properties: Colour: Colour: Colour: Colour: Colour: Colour (Colour (Components with critical values that require	
General protective and hygienic measures The usual precautionary measures should be adhered to in handing the chemicals. Breathing equipment: Wash hands during breaks and at the end of the vork. Wash hands during breaks and at the end of the vork. Use breaks and at the end of the vork. Breathing equipment: Check precedency with high concentrations. Protection of hands: Check precedency with high concentrations. Breathing potention with high concentrations. Check precedency with high concentration. Protection: Protection Protection: Check precedency with high concentration. Porticition: Liquid Colour test Sterich Smell: Sterich Sterich Not determined Jamico temperature: Not determined Decomposition temperature: Not determined Steam protection: Not determined Decomposition temperature: Not determined Denary of explosion: Not de	monitoring at the workplace: Additional information:	Not required. No data
Breathing equipment: Avoid constant with he eves and skin. Breathing equipment: Use breathing protection with high concentrations. Breathing equipment: Not determined Body protection: Protection off support Support Not determined Body protection: Protection off support Support Not determin		
Breathing equipment: Avoid constant with he eves and skin. Breathing equipment: Use breathing protection with high concentrations. Breathing equipment: Not determined Body protection: Protection off support Support Not determined Body protection: Protection off support Support Not determin	General protective and hygienic measures	The usual precautionary measures should be adhered to in handling the chemicals.
Wash hands during breaks and at the end of the work. Use the hands during breaks and at the end of the work. Use the break protection of hands: The during optication of hands: Deep protection: Protection:		Instantly remove any solled and impregnated garments.
Breating equipment: Waterial of gloves Use breating protection with high concentrations: page constitution of a second on the material is a second on the material is available glove does not only depend on the material, but also on further marks of quality and varies from manufacture to manufacture. Penetration time of glove material By protection: Endetion of the subtle glove does not only depend on the material, but also on further marks of quality and varies from manufacture to manufacture. Physical and chemical properties: Endetion of the subtle glove does not only depend on the material statey glasses Provisition: Liquid Colour: Colouries Colour: Colouries Site of the subtle glove does not only depend on the material subtle glove does not only depend on the material subtle glove does not only depend on the material subtle glove does not only depend on the material subtle glove does not only depend on the material subtle glove does not only depend on the material subtle glove does not only depend on the material subtle glove does not only depend on the material subtle glove does not only depend on the material subtle glove does not only depend on the material subtle glove does not only depend on the material subtle glove does not only depend on the material subtle glove does not only depend on the material subtle glove does not only depend on the material subtle glove does not only depend on the material subtle glove does not only depend on the material subtle glove does not only depend on the material subtle glove does not only depend on the material subtle glove does not only depend on the material subtle glove does not only depend on the subtle glove does not only depend on the material subtle glove does not only depen		Wash hands during breaks and at the end of the work.
Protection of hands: Protection of hands: Check protective gloves put to fach use for their proper condition. Protection of gloves material Protection of gloves material Protection: Protective work cloining. Protective work cloining. Product in not explosive. Product in not explosive. Product in not explosive. Product in not explosive. Protective work cloining. Product in not explosive. Protective work cloining. Product in not explosive. Protective work cloining. Product in not explosive. Product in not explosive. Protective work cloining. Product in not explosive. Protective work cloining. Protective work cloining	Breathing equipment:	Use breathing protection with high concentrations.
and varies from manufacturer and varies from manufacturer Preprotection: Provide and protection Body protection: Protective work dothing. Physical and chemical properties: Protective work dothing. General Information Protective work dothing. Form: Liquid Colouries: Protective work dothing. Porticition: Protective work dothing. Protective work dothing. Protective work dothing. Protective work dothing of protect	Protection of hands:	Check protective gloves prior to each use for their proper condition.
Penetration time of glove material Subjection: Subjection: Protective work clothing. 9 Prysical and chemical properties: 9 Prysical and chemical properties: 9 Prysical and chemical properties: 9 Protective work clothing. 9 Private and chemical properties: 9 Conserved the second seco	Material of gloves	and varies from manufacturer to manufacturer.
Eye protection: Safety glasses Body protection: Protective work dathing. Physical and chemical properties: General Information Form: Liquid Coloures: Colouries: Colouries: Colouries Smell: Colouries: Colouries Bolling point/Bolling range: Set velocity Bolling point/Bolling range: Set velocity Bolling point/Bolling range: Not determined Bolling point/Bolling range: Not determined Decomposition temperature / tank Decomposition temperature / tank Decomposition temperature: Not determined Decomposition temperature: Not determined Steam pressure: Not determined Steam pression reactions known Carbon monoxide and carbon divide Steam pression if used and stored according to specifications.	Ponotration time of alove material	
Body protection: Protective work dothing. 9 Physical and chemical properties: General Information Form: Liquid Colour: Delay ellow Smeli: Stench Change in condition Meting point/Meting range: Boding point/Meting range: Not determined Boding point/Meting range: Not determined Boding point/Meting range: Not determined Decomposition temperature: Not determined Decomposition temperature: Not determined Decomposition temperature: Not determined Upper: Not determined Depressure: Not determined Upper: Not determined Upper: Not determined Dems pressure: Not determined Stantify in / Miscibility with Not determined Materials to be avoided: Arr Ordical aggerts Cold and stored according to specifications. Arr Ordering agerts Defined points No decomposition if used and stored according to specifications. Mar Ordering agerts		Safety glasses
9 Physical and chemical properties: General Information Form: Liquid Colour: Colouries Paysical and chemical properties: Colouries Smell: Pay velow Change in condition Stench Meting point/Beiling range: Ext determined Builing point/Beiling range: Ext determined Babination temperature: Not determined Paner of explosion: Product is not explosive. Critical values for explosion: Product is not explosive. Critical values for explosion: Not determined Descomposition temperature: Not determined Descomposition temperature: Not determined Dense of explosion: Product is not explosive. Critical values for explosion: Not determined Density Not determined Density Not determined Density Not determined Density Not determined Dange of explosion: Not determined Danger of explosion: Not determined Density Not determined Density Not determined	Body protection:	Face protection
General Information Liquid Colour: Pale yellow Smell: Colouriess Smell: Sternh Change in condition Sternh Dialog yellow Sternh Change in condition Sternh Boiling point/Boiling prange: Not determined Builting to temperature? start: Not determined Liquiton temperature: Not determined Decomposition temperature: Not determined Dange of explosion: Product is not explosive. Critical values for explosion: Not determined Dange of explosion: Not determined Steam pressure: Not determined Solubility in / Miscibility with Not determined Water: Not determined Steab pressure: Not determined Solubility in / Miscibility with Not determined Materials to be avoided: Adding agents Adding agents Not decomposition if used and stored according to specifications. Adding agents Not decomposition if used and stored according to specifications. Adding agents		· · · · · · · · · · · · · · · · · · ·
Form: Colouries Smell: Colouries Smell: Colouries Smell: Change in condition Mediang points Sublimation temperature: Not determined Lightion temperature: Not determined Decomposition temperature: Not determined Density Not determined Density De		
Colour: Colouriess Pale yellow Change in condition Change in condition Boiling point/Boiling prange: Ster/ch Change in condition Boiling point/Boiling prange: Not determined 64-66 (15 mmHg) Sublimation temperature / start: Not determined Juption temperature / start: Not determined Danger of explosion: Product is not explosive. Critical values for explosion: Product is not explosive. Lyower: Not determined Jower: Not determined Boilingtion temperature: Not determined Steam pressure: Not determined Density Not determined Steam pressure: Not determined Steam pressure: Not determined Steability in / Miscibility with Water: Not determined Stability and reactivity Not determined Thermal decomposition / conditions to be avoided: Not determined Dangerous reactions: Not determined Dangerous reactions: Not determined Dangerous reactions: Not determined Stability and reactivity Not determined The stability o		Liquid
Smell: Stech Change in condition Meting point/Meting range: Builing point temperature: Not determined Not determined Decomposition temperature: Lower: Upper: Not determined Not determined Density Not determined Steam pressure: Not determined Not determined Solubility in / Miscibility with Water: Not calcomposition if used and stored according to specifications. All Auditional ecological information Acting apents: Dangerous products of decomposition: Carbon monoxide and carbon dioxide Suphru oxides (SOX) Hydrogen Buoride Hydrogen Buori	Colour:	Colourless
Metiling point/Metiling range: Not determined Boiling point/Weiling range: Not determined Boiling point/Weiling range: Not determined Elash point: Not determined Ignition temperature start: Not determined Ignition temperature: Not determined Decomposition temperature: Not determined Decomposition temperature: Not determined Decomposition temperature: Not determined Decomposition temperature: Not determined Descomposition temperature: Not determined Upper: Not determined Stability in / Miscibility with Not determined Water: Not miscible or difficult to mix O Stability and reactivity Not miscible or difficult to mix Thermal decomposition / conditions to be avoided: No dargerous reactions known Carbon monoxide and carbon dioxide adcording to specifications. Argerous reactions in advise (SOA) Bangerous reactions: Carbon monoxide and carbon dioxide Builty hur oxides (SOA) Philipur oxides (SOA) Hydrogen suphade 1 Toxicological information: Carbon monoxide and carbon dioxide Builty in (a bis	Smell:	
Boiling point/Boiling range: 64.66°C (15 mmHg) Sublimation temperature: Not determined Ignition temperature: Not determined Danger of explosion: Product is not explosive. Critical values for explosion: Product is not explosive. Critical values for explosion: Not determined Lower: Not determined Density Not determined Density Not determined Steam pressure: Not determined Density Not determined Solubility in / Miscibility with Water: Value Not determined Solubility in / Miscibility with Not determined Density Not determined Solubility in / Miscibility with Not determined Value Not determined Density Not determined Solubility in / Miscibility with Not determined Value: Not determined Density Not determined Density Not determined Solubility in / Miscibility with Not determined Solubility in / Miscibility with Not determined Dangero	Change in condition	Not determined
Flash point: Not determined Ignition temperature: Not determined Decomposition temperature: Not determined Danger of explosion: Product is not explosive. Critical values for explosion: Product is not explosive. Critical values for explosion: Not determined Upper: Not determined Density Not determined Steam pressure: Not determined Solubility in / Miscibility with Not determined Water: Not determined O Stability and reactivity Not determined Thermal decomposition / conditions to be avoided: Not decomposition if used and stored according to specifications. Wateria: to dangerous reactions: No dangerous reactions known Dangerous productis of decomposition Cardon monexide and carbon dioxide Suphur oxides (GX) Yoldizing agents No dangerous production of the skin: Irritant for skin and mucous membranes. on the skin: Irritant offect: on the skin: Irritant effect: On the skin: Irritant effect: On the skin: Irritant effect: Danger by skin resorption. N	Boiling point/Boiling range:	
Ignition temperature: Not determined Decomposition temperature: Not determined Danger of explosion: Product is not explosive. Critical values for explosion: Not determined Upper: Not determined Steam pressure: Not determined Density Not determined Solubility in / Miscibility with Not determined Water: Not miscible or difficult to mix O Stability and reactivity Not decomposition if used and stored according to specifications. Arriding agents No decomposition if used and stored according to specifications. Dangerous reactions: Density Dangerous reactions: No decomposition if used and stored according to specifications. Dangerous reactions: No decomposition if used and stored according to specifications. Dangerous reactions: No decomposition if used and stored according to specifications. Danger of stability and reactivity No decomposition if used and stored according to specifications. Taxicological information: Carbon monoxide and carbon dioxide Acture toxicity: Primary infraint effect: Orindust state toxicity: Infraint effect:		Not determined
Decomposition temperature: Not determined Darger of explosion: Product is not explosive. Critical values for explosion: Not determined Upper: Not determined Density Not determined Steam pressure: Not determined Density Not determined Solubility in / Miscibility with Not determined Water: Not miscible or difficult to mix O Stability and reactivity Thermal decomposition / conditions to be avoided: Materials to be avoided: No decomposition if used and stored according to specifications. Air Oxidizing agents No dargerous reactions: No dargerous reactions known Dangerous products of decomposition: Stophur oxides (SOx) Hydrogen sluphide 1 1 Toxicological information Acute toxicity: Primary initiant effect: No the sets of our knowledge the acute and chronic toxicity of this substance is not fully known. On the skin: Irritant effect: on the sets of our knowledge the acute and chronic toxicity of this substance is not fully known. Additional toxicological information: Additional toxicological information:	Flash point:	Not determined
Danger of explosion: Product is not explosive. Critical values for explosion: Not determined Lower: Not determined Upper: Not determined Steam pressure: Not determined Density Not determined Solubility in / Miscibility with Water: Water: Not determined O Stability and reactivity Not determined Thermal decomposition / conditions to be avoided: Not decomposition if used and stored according to specifications. Dangerous reactions: Dangerous reactions: Not decomposition ducation decomposition if used and stored according to specifications. Dangerous reactions: Not decomposition if used and stored according to specifications. Dangerous reactions: Carbon monoxide and carbon dioxide Dangerous reactions: Not determined Dangerous reactions: Not decomposition if used and stored according to specifications. Air Ostability and reactivity: Phydrogen stuphide Not explosition gents 1 Toxicological information: Irritant for skin and mucous membranes. Not the syster respondent No sensitizing effect known.	Ignition temperature:	
Critical values for explosion: Lower: Not determined Lower: Not determined Steam pressure: Not determined Density Not determined Solubility in / Miscibility with Water: Not determined O Stability and reactivity Not miscible or difficult to mix Thermal decomposition / conditions to be avoided: No decomposition if used and stored according to specifications. Air Dangerous reactions: No decomposition if used and stored according to specifications. Air Dangerous reactions: No dangerous reactions known Carbon monoxide and carbon dioxide Sulphur oxides (SOX) Hydrogen sulphide Sulphur oxides (SOX) Hydrogen sulphide 1 Toxicological information Acute toxicity: Primary irritant effect: on the skin: Irritant fefect: Irritant for skin and mucous membranes. Irritant effect: On the skin: Irritant effect: O the second information: Additional toxicological information: Additional toxicological information: Additional toxicological information: General notes: Water hazard class 1 (Self-assessment): slightly hazardous for water, Do not allow unditided product or large quantities of it is reach ground water, water bodies or sewage system Do not allow undited product or large quantities of it to reach ground water, water bodies or sewage system Do not allow undited product or large quantities of it to reach ground water, water bodies or sewage system Do not allow undited product or large quantities of it to reach ground water, water bodies or sewage system	Decomposition temperature:	
Lower: Not determined Upper: Not determined Density Not determined Density Not determined Solubility in / Miscibility with Not miscible or difficult to mix O Stability and reactivity Not miscible or difficult to mix O Stability and reactivity Not miscible or difficult to mix O Stability and reactivity Not decomposition if used and stored according to specifications. Materials to be avoided: Not decomposition if used and stored according to specifications. Dangerous reactions: No degreous reactions known Dangerous products of decomposition: Carbon monoxide and carbon dioxide Supprimery instant effect: No dengerous reactions known. Primary instant effect: Irritant for skin and mucous membranes. on the skin: Irritant for skin and mucous membranes. on the skin: Irritant for skin and mucous membranes. No dessilication: No sensitizing effect known. Additional toxicological information: Sensitization data on carcinogenic properties of this substance is not fully known. Danger by skin resorption. No dessilication data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSt or ACGH. 2 Ecological		Product is not explosive.
Upper: Not determined Steam pressure: Not determined Density Not determined Solubility in / Miscibility with Not miscible or difficult to mix O Stability and reactivity Not determined Thermal decomposition / conditions to be avoided: Not determined O Stability and reactivity Not determined Thermal decomposition / conditions to be avoided: Not determined Dangerous reactions: No decomposition if used and stored according to specifications. Air Conditions and carbon monoxide and carbon monoxide and carbon dioxide Suphur oxides (SOX) Hydrogen fluoride Hydrogen fluoride Hydrogen sulphide Hydrogen fluoride 1 Toxicological information Acute toxicity: Primary irritant effect: Irritant for skin and mucous membranes. On the skin: Irritant offect known. To the best of our knowledge the acute and chronic toxicity of this substance is not fully known. Danger by skin resorption. No desification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSP or ACGIH. 2 Ecological information: Kater hazard class 1 (Self-assessment): slightly hazardous for water. General notes: Do not allow und		Not determined
Density Not determined Solubility in / Miscibility with Water: Not miscible or difficult to mix 0 Stability and reactivity Thermal decomposition / conditions to be avoided: No decomposition if used and stored according to specifications. Dangerous reactions: Ox dangerous reactions: No decomposition if used and stored according to specifications. Dangerous reactions: No decomposition if used and stored according to specifications. Dangerous products of decomposition: No decomposition if used and stored according to specifications. Air izing agents No decomposition if used and stored according to specifications. Dangerous reactions: No decomposition if used and stored according to specifications. Dangerous products of decomposition: Air izing agents No datagerous reactions: No datagerous reactions (SQX) Primary initiant effect: Irritant for skin and mucous membranes. On the skin: Irritant for skin and mucous membranes. On the skin: Irritant for skin and mucous membranes. On the bits of our knowledge the acute and chronic toxicity of this substance is not fully known. Danger by skin resorption. No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSF or ACGIH.		
Solubility in / Miscibility with Water: Not miscible or difficult to mix 0 Stability and reactivity Thermal decomposition / conditions to be avoided: No decomposition if used and stored according to specifications. Air. Dangerous reactions: Dangerous reactions: Pydrogen fluoride Hydrogen sulphide No decomposition if used and stored according to specifications. Hydrogen fluoride Hydrogen sulphide 1 Toxicological information: Con the skin: On the eye: No classification data on carcinogenic properties of this substance is not fully known. Darager by skin reacrption. No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSP or ACGIH. 2 Ecological information: General notes: Do not allow material to be released to the environment without proper governmental permits. 3 Disposal considerations Product: Recommendation Hand over to disposers of hazardous waste. Must be specially treated under acherence to official regulations. Consult state, local or national regulations for proper disposal.	Steam pressure:	Not determined
Water: Not miscible or difficult to mix 0 Stability and reactivity Thermal decomposition / conditions to be avoided: No decomposition if used and stored according to specifications. Materials to be avoided: Air Ovidizing agents Dangerous reactions: No dangerous reactions known Carbon monoxide and carbon dioxide Dangerous reactions: No dangerous reactions known Carbon monoxide and carbon dioxide Sulphur oxides (SOX) Hydrogen fluoride and carbon dioxide Ydrogen fluoride Hydrogen fluoride Hydrogen fluoride Hydrogen fluoride Ydrogen fluoride Hydrogen fluoride Hydrogen fluoride Hydrogen fluoride Ydrogen fluoride Hydrogen fluoride Ydrogen fluoride Hydrogen fluoride No tessition: Irritant for skin and mucous membranes. On the eye: Irritant forts. Additional toxicological information: No classification data on carcinogenic properties of this substance is not fully known. Dang	Density	Not determined
0 Stability and reactivity Thermal decomposition / conditions to be avoided: Materials to be avoided: Materials to be avoided: Dangerous reactions: Dangerous products of decomposition: Carbon monoxide and carbon dioxide SUphur oxides (SOX) Hydrogen fluoride Hydrogen fluoride Hydrogen fluoride Hydrogen sulphide 1 Toxicological information Acute toxicity: Primary irritant effect: on the eye: Sensilization: Additional toxicological information: Additional toxicological information: Additional toxicological information: Additional ecological information: General notes: Water hazard class 1 (Self-assessment): slightly hazardous for water. Do not allow material to be released to the environment without proper governmental permits. 3 Disposal considerations Product: Recommendation H	Solubility in / Miscibility with	Not misciple or difficult to mix
Themal decomposition / conditions to be avoided: No decomposition if used and stored according to specifications. Air Oxidizing agents No dangerous reactions: Dangerous products of decomposition: No decomposition if used and stored according to specifications. Air Oxidizing agents No dangerous reactions known Carbon monoxide and carbon dioxide Sulphur oxides (SQX) Hydrogen sulphide 1 Toxicological information Acute toxicity: on the skin: on the skin: on the skin: Additional toxicological information: Additional toxicological information: Additional toxicological information: Additional toxicological information: Mo deastify of our knowledge the acute and chronic toxicity of this substance is not fully known. Danger by skin resorption. No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSF or ACGIH. 2 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. 3 Disposal considerations Product: Recommendation Hand over to disposers of hazardous waste. Must be specially treated under adherence to official regulations. Consult state, local or national regulations for proper disposal.	Water.	
avoided: No decomposition if used and stored according to specifications. Materials to be avoided: Air Dangerous reactions: No dangerous reactions known Carbon monoxide and carbon dioxide Sulphur voides (SOX) Hydrogen fluoride Hydrogen fluoride Hydrogen sulphide Hydrogen sulphide 1 Toxicological information Acute toxicity: Primary irritant effect: Irritant for skin and mucous membranes. on the extin: Irritant effect. on the extin: Irritant effect. Additional toxicological information: No daagerprint. Additional toxicological information: To be best of our knowledge the acute and chronic toxicity of this substance is not fully known. Danger by skin resorption. No dassification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSF or ACGIH. 2 Ecological information: 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 syster Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage syster Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage syster Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage syster Do not	0 Stability and reactivity	
Materials to be avoided: Air Dangerous reactions: Oxidizing agents Dangerous products of decomposition: No dangerous reactions known Carbon monoxide and carbon dioxide Sulphur oxides (SOX) Hydrogen fluende Hydrogen sulphide 1 Toxicological information Acute toxicity: Acute toxicity: Primary irritant effect: on the skin: Irritant for skin and mucous membranes. on the eye: No densitizing effect known. Additional toxicological information: No sensitizing effect known. Additional toxicological information: No sensitizing effect known. To deasyfication data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSF or ACGIH. 2 Ecological information: General notes: Additional ecological information: General notes: 3 Disposal considerations Hand over to disposers of hazardous waste. Must be specially treated under adherence to official regulations. Consult state, local or national regulations for proper disposal. Uncleaned packagings: Hand over to disposers of hazardous waste.		
Dangerous reactions: Oxidizing agents No dangerous reactions known Carbon monoxide and carbon dioxide Sulphur oxides (SOV) Hydrogen fluoride Hydrogen sulphide 1 Toxicological information Acute toxicity: Primary irritant effect: on the skin: Additional toxicological information: Additional toxicological information: Additional toxicological information: Additional toxicological information: Additional toxicological information: Additional toxicological information: Additional toxicological information: Basification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSF or ACGIH. 2 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 syster Do not allow material to be released to the environment without proper governmental permits. 3 Disposal considerations Product: Recommendation Hand over to disposers of hazardous waste. Must be specially treated under adherence to official regulations. Consult state, local or national regulations for proper disposal.		
Dangerous reactions: No dangerous reactions (nown) Dangerous products of decomposition: Carbon monoxide and carbon dioxide Sulphur oxides (SOx) Hydrogen fluoride Hydrogen fluoride Hydrogen fluoride Primary irritant effect: Irritant for skin and mucous membranes. on the skin: Irritant effect. Sensitization: Additional toxicological information: Additional toxicological information: To the best of our knowledge the acute and chronic toxicity of this substance is not fully known. Dargerous products Dassification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSH or ACGIH. 2 Ecological information: 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 syster Do not allow material to be released to the environment without proper governmental permits. 3 Disposal considerations Hand over to disposers of hazardous waste. Must be specially treated under adherence to official regulations. Consult state, local or national regulations for proper disposal.		Oxidizing agents
1 Toxicological information Acute toxicity: Primary irritant effect: on the skin: on the skin: on the eye: Sensitization: Additional toxicological information: Additional toxicological information: Additional toxicological information: Cological information: Additional toxicological information: Bensitizing effect known. To the best of our knowledge the acute and chronic toxicity of this substance is not fully known. Danger by skin resorption. No dessification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSH or ACGIH. 2 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 syster Do not allow material to be released to the environment without proper governmental permits. 3 Disposal considerations Product: Recommendation Hand over to disposers of hazardous waste. Must be specially treated under adherence to official regulations. Consult state, local o		No dangerous reactions known
Hydrogen fluoride Hydrogen sulphide 1 Toxicological information Acute toxicity: Primary irritant effect: on the skin: 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. Danger by skin resorption. No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSF or ACGIH. 2 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 syster Do not allow material to be released to the environment without proper governmental permits. 3 Disposal considerations Product: Recommendation Hand over to disposers of hazardous waste. Must be specially treated under adherence to official regulations. Consult state, local or national regulations for proper disposal. Uncleaned packagings: Uncleaned packagings:	Dangerous products of decomposition:	Sulphur oxides (SOx)
1 Toxicological information Acute toxicity: Primary irritant effect: on the skin: on the eye: Sensitization: Additional toxicological information: Additional toxicological information: Additional ecological information: General notes: Irritant for skin and mucous membranes. Irritant effect. No sensitizing effect known. Danger by skin resorption. No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSI or ACGIH. 2 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 syster Do not allow material to be released to the environment without proper governmental permits. 3 Disposal considerations Product: Recommendation Hand over to disposers of hazardous waste. Must be specially treated under adherence to official regulations. Consult state, local or national regulations for proper disposal. Uncleaned packagings: Hand over to disposers of national regulations for proper disposal.		Hydrogen fluoride
Acute toxicity: Primary irritant effect: Irritant for skin and mucous membranes. on the skin: Irritant effect: No sensitizing effect known. Additional toxicological information: Irritant effect. No sensitizing effect known. Additional toxicological information: To the best of our knowledge the acute and chronic toxicity of this substance is not fully known. Danger by skin resorption. No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSI or ACGIH. 2 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. 3 Disposal considerations Hand over to disposers of hazardous waste. Must be specially treated under adherence to official regulations. Consult state, local or national regulations for proper disposal. Uncleaned packagings: Hand over to disposers of hazardous waste.	a 🐨 - to stant at the to state	
on the skin: on the eye: Sensitization: Additional toxicological information: Additional toxicological information: Additional ecological information: General notes: 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. Danger by skin resorption. No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSF or ACGIH. 2 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 syster Do not allow material to be released to the environment without proper governmental permits. 3 Disposal considerations Product: Recommendation Hand over to disposers of hazardous waste. Must be specially treated under adherence to official regulations. Consult state, local or national regulations for proper disposal. Uncleaned packagings: Uncleaned packagings:	•	
on the skin: on the eye: Sensitization: Additional toxicological information: Additional toxicological information: Additional ecological information: General notes: 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. Danger by skin resorption. No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSH or ACGIH. 2 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 syster Do not allow material to be released to the environment without proper governmental permits. 3 Disposal considerations Product: Recommendation Hand over to disposers of hazardous waste. Must be specially treated under adherence to official regulations. Consult state, local or national regulations for proper disposal. Uncleaned packagings: Uncleaned packagings:	Primary irritant effect:	
Sensitization: No sensitizing effect known. Additional toxicological information: To the best of our knowledge the acute and chronic toxicity of this substance is not fully known. Danger by skin resorption. No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSH or ACGIH. 2 Ecological information: Mater 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. 3 Disposal considerations Hand over to disposers of hazardous waste. Must be specially treated under adherence to official regulations. Consult state, local or national regulations for proper disposal. Uncleaned packagings:	on the skin:	
Additional toxicological information: To the best of our knowledge the acute and chronic toxicity of this substance is not fully known. Danger by skin resorption. No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSI or ACGIH. 2 Ecological information: Material 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. 3 Disposal considerations Hand over to disposers of hazardous waste. Must be specially treated under adherence to official regulations. Consult state, local or national regulations for proper disposal.	Sensitization:	No sensitizing effect known.
No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSI or ACGIH. 2 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. 3 Disposal considerations Product: Recommendation Hand over to disposers of hazardous waste. Must be specially treated under adherence to official regulations. Consult state, local or national regulations for proper disposal. Uncleaned packagings:	Additional toxicological information:	To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.
2 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. 3 Disposal considerations Product: Recommendation Hand over to disposers of hazardous waste. Must be specially treated under adherence to official regulations. Consult state, local or national regulations for proper disposal. Uncleaned packagings:		No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSI
Additional ecological information: 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. 3 Disposal considerations Product: Recommendation Hand over to disposers of hazardous waste. Must be specially treated under adherence to official regulations. Consult state, local or national regulations for proper disposal.		OF ACGIH.
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 syster Do not allow material to be released to the environment without proper governmental permits. 3 Disposal considerations Product: Recommendation Hand over to disposers of hazardous waste. Must be specially treated under adherence to official regulations. Consult state, local or national regulations for proper disposal. Uncleaned packagings:	•	
Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage syster Do not allow material to be released to the environment without proper governmental permits. 3 Disposal considerations Product: Recommendation Hand over to disposers of hazardous waste. Must be specially treated under adherence to official regulations. Consult state, local or national regulations for proper disposal.		Water bazard class 1 (Solf accomment): clightly bazardous for water
3 Disposal considerations Product: Recommendation Hand over to disposers of hazardous waste. Must be specially treated under adherence to official regulations. Consult state, local or national regulations for proper disposal. Uncleaned packagings:	General notes.	Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage syster
Product: Recommendation Hand over to disposers of hazardous waste. Must be specially treated under adherence to official regulations. Consult state, local or national regulations for proper disposal. Uncleaned packagings: Uncleaned packagings:		be not anow matchai to be released to the environment without proper governmental permits.
Recommendation Hand over to disposers of hazardous waste. Must be specially treated under adherence to official regulations. Consult state, local or national regulations for proper disposal. Uncleaned packagings:	-	
Must be specially treated under adherence to official regulations. Consult state, local or national regulations for proper disposal. Uncleaned packagings:		Hand over to disposers of hazardous waste.
Uncleaned packagings:		Must be specially treated under adherence to official regulations.
Recommendation: Disposal must be made according to official regulations.		Consult state, local or national regulations for proper disposal.
	Unclosued neckogings.	

Revision: 24.08.2010

rade name 4-(Trifluoromethoxy)thiophenol		
	(Contd. of page 2	
14 Transport information		
Land transport ADR/RID and GGVS/GGVE	(cross-border/domestic)	
ADR/RID-GGVS/E Class: Kemler Number: UN-Number: Packaging group: Label Designation of goods: Limited quantities (LQ) Transport category Tunnel restriction code	6.1 (T1) Toxic substances. 60 2810 III 6.1 2810 TOXIC LIQUID, ORGANIC, N.O.S. (4-(Trifluoromethoxy)thiophenol) LQ7 2 E	
Maritime transport IMDG/GGVSea:		
IMDG/GGVSea Class: UN Number: Label Packaging group: EMS Number: Marine pollutant:	6.1 2810 6.1 III F-A,S-A No	
Correct technical name:	TOXIC LIQUID, ORGANIC, N.O.S. (4-(Trifluoromethoxy)thiophenol)	
Air transport ICAO-TI and IATA-DGR:		
ICAO/IATA Class: UN/ID Number: Label Packaging group: Correct technical name:	6.1 2810 6.1 III TOXIC LIQUID, ORGANIC, N.O.S. (4-(Trifluoromethoxy)thiophenol)	
UN "Model Regulation":		
	UN2810, TOXIC LIQUID, ORGANIC, N.O.S., 6.1, III	
5 Regulatory information		
Designation according to EC guidelines:		
Code letter and hazard designation of product:	Xn Harmful	
Risk phrases:	20/21/22 Harmful by inhalation, in contact with skin and if swallowed. 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. 36/37 Wear suitable protective clothing and gloves.	
National regulations Information about limitation of use:	For use only by technically qualified individuals. Employment restrictions concerning young persons must be observed.	
Water hazard class:	Water hazard class 1 (Self-assessment): slightly hazardous for water.	
this information to ensure proper use and prot	as a supplement to other information gathered by them, and should make independent judgement of suitability of otect the health and safety of employees. This information is furnished without warranty, and any use of the produ Data Sheet, or in combination with any other product or process, is the responsibility of the user.	
Department issuing data specification she Contact: Abbreviations and acronyms:	eet: Health, Safety and Environmental Department. Zachariah Holt ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage o 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 Air Transport Association IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA) ICAO: International Civil Aviation Organization 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)	
	CAS: Chemical Abstracts Service (division of the American Chemical Society)	

GB