Printing date 02.08.2010	Revision: 02.08.2010	
1 Identification of substance Product details		
Trade name	4'-Fluorovalerophenone	
Stock number:	B22861, L05328	
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. P261 Avoid breathing dust/fume/gas/mist/vapours/spray.	
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. 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 ingredient	S	
Chemical characterization: Designation: (CAS#)	4'-Fluorovalerophenone (CAS# 29114-66-7): 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.	
After eye contact	Seek immediate medical advice. Rinse opened eye for several minutes under running water. Then consult doctor. Seek immediate medical advice.	
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)	
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	
Measures for cleaning/collecting: Additional information:	Ensure adequate ventilation.	
	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. Ensure good ventilation/exhaustion at the workplace.	
Information about protection against explosions and fires:	Keep ignition sources away - Do not smoke.	
Storage	Keep ignition sources away - Do not smoke.	
Requirements to be met by storerooms and containers:	No special requirements.	
Information about storage in one common		
storage facility: Further information about storage	Store away from oxidizing agents.	
conditions:	Keep container tightly sealed. Store in cool, dry conditions in well sealed containers.	
2 Evenestic controls and parsonal protos		
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 of at least 100 feet per minute.	
Components with critical values that require		
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. Instantly remove any soiled and impregnated garments. Wash hands during breaks and at the end of the work. Avoid contact with the eyes and skin.	
	Instantly remove any soiled and impregnated garments.	
	Wash hands during breaks and at the end of the work. Avoid contact with the eyes and skin.	
Breathing equipment: Protection of hands:	Use breathing protection with high concentrations. Check protective gloves prior to each use for their proper condition.	
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Trade name <b>4'-Fluorovalerophenone</b>	
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:	Low melting solid
Colour: Smell:	White Not determined
Change in condition Melting point/Melting range: Boiling point/Boiling range: Sublimation temperature / start:	25-28°C 119-123°C (22 mmHg) Not determined
Flash point:	Not applicable
Ignition temperature:	Not determined
Decomposition temperature:	Not determined
Danger of explosion: Critical values for explosion:	Product is not explosive.
Lower: Upper:	Not determined Not determined
Steam pressure:	Not determined
Density	Not determined
Solubility in / Miscibility with Water:	Insoluble
Water.	
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
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:	Generally not hazardous for water. 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: Safety phrases:	<ul> <li>36/37/38 Irritating to eyes, respiratory system and skin.</li> <li>26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.</li> <li>37 Wear suitable gloves.</li> </ul>
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)
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(Contd. on page 3) GB

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Water hazard class:	Generally not 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 specificat Contact: Abbreviations and acronyms:	ion 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: 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-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA) ICAO: International 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)	