Revision:	14.07.2010

1 1111111 date 14.01.2010	Nevision. 14.07.2010
1 Identification of substance	
Product details	
Trade name	2-Cyanopyridine
Stock number:	A12900, L06663
Manufacturer/Supplier:	Alfa Aesar GmbH & Co.KG Benzstrasse 3 E-mail: gcat@matthev.com
	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:	Xn Harmful
the state of the sector of the	
Information pertaining to particular dangers for man and environment	R 22 Harmful if swallowed.
GHS label elements	R 36 Irritating to eyes.
Und label elements	Varning
	H302 - Harmful if swallowed.
-	H319 - Causes serious eve irritation
Prevention: Response:	P280 Wear protective clothing. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present
	and easy to do. Continue rinsing.
3 Composition/information on ingredients	s
Chemical characterization:	
Designation: (CAS#)	2-Cyanopyridine (CAS# 100-70-9)
Identification numbér(s): EINECS Number:	202-880-3
4 First aid measures	ter ter etter er en en en en de de en en die die en opposition
General information	Instantly remove any clothing soiled by the product. In case of irregular breathing or respiratory arrest provide artificial respiration. Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
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 soan and rinse thoroughly
After eye contact	Seek immediate medical advice. Rinse opened eve for several minutes under running water. Then consult doctor.
After swallowing	Rinse opened eye for several minutes under running water. Then consult doctor. Do not induce vomiting; instantly call for medical help. 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
	Carbon monoxide and carbon dioxide Nitrogen oxides (NOx) Hydrogen cyanide (HCN) 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
Measures for environmental protection:	Do not allow material to be released to the environment without proper governmental permits. Dispose of contaminated material as waste according to item 13.
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.
	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 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 a locked cabinet or with access restricted to technical experts or their assistants.
8 Exposure controls and personal protect	tion
Additional information about design of technical systems:	Proventing and having a provide the based designed for begandlup approved and baying an average face velocity of at
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
	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.
	(Contd. on page 2)
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Printing date 14.07.2010	according to 1907/2000/EC, Article 31	ion: 14.07.201
Trade name 2-Cyanopyridine	1.603	1011. 14.07.201
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Breathing equipment: Protection of hands: Material of gloves	Use breathing protection with high concentrations. Check protective gloves prior to each use for their proper condition. The selection of the suitable gloves does not only depend on the material, but also on further marks of	Contd. of page 1
Eye protection:	varies from manufacturer to manufacturer. Safety glasses	
Body protection:	Face protection Protective work clothing.	
9 Physical and chemical properties:		
General Information		
Form: Colour:	Low melting solid White	
Smell: Change in condition	Characteristic	
Melting point/Melting range: Boiling point/Boiling range:	26-28°C 212-214°C	
Sublimation temperature / start:	Not determined	
Flash point: Ignition temperature:	89°C 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 at 20°C	1.081 g/cm ³	
Solubility in / Miscibility with Water at 20°C:	67 g/l	
pH-value (100 g/l) at 20°C:	8.4	
Materials to be avoided: Dangerous reactions: Dangerous products of decomposition:	Oxidizing agents No dangerous reactions known Carbon monoxide and carbon dioxide Nitrogen oxides (NOx) Hydrogen cyanide (prussic acid)	
11 Toxicological information Acute toxicity:		
LD/LC50 values that are relevant for classific Oral LD50 960 mg/kg (rat)	ation:	
Irritation of skin mild unknown mg (rabbit) Irritation of eyes moderate unknown mg (rabbit)		
Primary irritant effect: on the skin:	Causes mild irritant effect.	
on the eye: Sensitization: Additional toxicological information:	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, N ⁻ ACGIH.	TP, OSHA or
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 Do not allow material to be released to the environment without proper governmental permits.	e system.
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: Recommended cleaning agent:	Disposal must be made according to official regulations. Water, if necessary with cleaning agent.	
14 Transport information		
Land transport ADR/RID and GGVS/GGVE (cr ADR/RID-GGVS/E Class: UN-Number:	None	
Label Maritime transport IMDG/GGVSea:	6.1	
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.	GB
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GB (Contd. on page 3)

Trade name 2-Cyanopyridine

Revision: 14.07.2010

Page 3/3

	(Contd	. of page 2)
15 Regulatory information		
Designation according to EC guidelines:		
Code letter and hazard designation of product:	Xn Harmful	
Risk phrases:	22 Harmful if swallowed. 36 Irritating to eyes.	
Safety phrases:	26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. 36 Wear suitable protective clothing.	
National regulations		
Information about limitation of use:	Employment restrictions concerning young persons must be observed. For use only by technically qualified individuals.	
Water hazard class:	Water hazard class 1 (Self-assessment): slightly hazardous for water.	
16 Other information: Employers should use this information only as a s information to ensure proper use and protect the h conformance with this Material Safety Data Sheet.	upplement to other information gathered by them, and should make independent judgement of suitability of ealth and safety of employees. This information is furnished without warranty, and any use of the product i or in combination with any other product or process, is the responsibility of the user.	this not in
Department issuing data specification sheet: Contact: Abbreviations and acronyms:		Carriage of