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	according to 1907/2006/EC, Article 31
Printing date 21.08.2010	Revision: 21.08.2010
1 Identification of substance	
Product details	
Trade name	4-n-Pentylbenzaldehyde
Stock number:	L09208
Manufacturer/Supplier:	Alfa Aesar GmbH & Co.KG
	Benzstrasse 3 E-mail: gcat@matthey.com
 A supply a start star start start start	D-76185 Karlsruhe / Germany www.alfa-chemcat.con
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: Information pertaining to particular dangers	void
Information pertaining to particular dangers for man and environment	Not applicable
GHS label elements	Void
3 Composition/information on ingredients	S
Chemical characterization:	
Designation: (CAS#)	4-n-Pentylbenzaldehyde (CAS# 6853-57-2): 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 medical treatment.
	Seek medicai nearment.
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:
	Carbon monoxide and carbon dioxide
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
Massures for anvironmental protection:	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). See Section 7 for information on safe handling
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.
-	Keep containers tightly sealed. Store in cool, dry place in tightly closed containers.
	No special precautions necessary if used correctly.
Information about protection against	
explosions and fires:	Keep ignition sources away - Do not smoke.
Storage Requirements to be met by storerooms and	
containers:	No special requirements.
Information about storage in one common storage facility:	Store away from air.
	Store away from oxidizing agents.
Further information about storage conditions:	Store under dry inert gas.
conditions.	Keep container tightly sealed.
	Store in cool, dry conditions in well sealed containers. This product is air sensitive.
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8 Exposure controls and personal protect	tion
Additional information about design of	Description of a strategic from the strategic data because the mission and having an everyon face value is
technical systems:	Properly operating chemical fume hood designed for hazardous chemicals and having an average face veloci 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 viewel process tionary measures should be adhered to in bandling the chemicals
General protective and nygrenic measures	The usual precautionary measures should be adhered to in handling the chemicals. Keep away from foodstuffs, beverages and food.
	Instantly rémove any soiled and impregnated garments. Wash hands during breaks and at the end of the work.
Breathing equipment:	Wash hands during breaks and at the end of the work. Use breathing protection with high concentrations.
Protection of hands:	Check protective gloves prior to each use for their proper condition.
Material of gloves	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
Penetration time of glove material	Not determined
Body protection:	Protective work clothing.
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Eye protection:	Safety glasses

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	(Contd. of page 1)
9 Physical and chemical properties:	
General Information	
Form: Colour:	Liquid Colourless
Smell:	Yellow Not determined
Change in condition	
Melting point/Melting range: Boiling point/Boiling range:	Not determined 142-144°C (2 mmHg)
Sublimation temperature / start:	Not determined
Flash point: Ignition temperature:	Not determined Not determined
Decomposition temperature:	Not determined
Danger of explosion:	Product is not explosive.
Critical values for explosion: Lower: Upper:	Not determined Not determined
Steam pressure:	Not determined
Density	Not determined
Solubility in / Miscibility with Water:	Not miscible or difficult to mix
10 Stability and reactivity	
Thermal decomposition / conditions to be	
avoided: Materials to be avoided:	No decomposition if used and stored according to specifications. Air
Dangerous reactions:	Oxidizing agents No dangerous reactions known
Dangerous products of decomposition:	Carbon monoxide and carbon dioxide
11 Toxicological information	
Acute toxicity: Primary irritant effect:	
on the skin: on the eye:	May cause irritation May cause irritation
Sensitization: Additional toxicological information:	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	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: 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:	Observe the normal safety regulations when handling chemicals
	The product is not subject to identification regulations under EC Directives and the Ordinance on Hazardous Materials (GefStoffV).
National regulations	
Information about limitation of use:	For use only by technically qualified individuals.
Water hazard class:	Generally not hazardous for water.
16 Other information:	
this information to ensure proper use and prote	a supplement to other information gathered by them, and should make independent judgement of suitability of ect 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 Da	ata Sheet, or in combination with any other product or process, is the responsibility of the user.
Contact:	t: Health, Safety and Environmental Department. Zachariah Holt
Abbreviations and acronyms:	ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) RID: Rèalement 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
	ADK: Accord europeen sure transport des marchandises dangereuses par Route (European Agreement concerning the International Carinage 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 Air Transport Association IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA) ICAO: International Civil Aviation Organization
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Safety Data Sheet according to 1907/2006/EC, Article 31

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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) (Contd. of page 2)

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