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Printing date 21.07.2010		Revision: 21.07.2010
1 Identification of substance Product details		
Trade name	3-Cyclopentylpropionic acid	
Stock number:	A18192	
Manufacturer/Supplier:	Alfa Aesar GmbH & Co.KG Benzstrasse 3	E-mail: gcat@matthey.com
I de la construcción de la constru	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	
	www.gillinio.uni-mainz.ue Teleion.+49(0)0131/13240	
2 Hazards identification		
Hazard designation:		
	Xi Irritant	
Information partaining to particular dangers		
Information pertaining to particular dangers for man and environment	R 10 Flammable.	
GHS label elements	R 36/37/38 Irritating to eyes, respiratory system and skin.	
GHS label elements	Warning	
	H226 - Flammable liquid and vapour.	
	Varning Varning	
	H315 - Causes skin irritation. H319 - Causes serious eye irritation.	
	H335 - May cause respiratory irritation.	
Prevention:	P210 Keep away from heat/sparks/open flames/hot surfaces No smoking. P241 Use explosion-proof electrical/ventilating/lighting/equipment. P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all cont	
Response:	P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all cont	taminated clothing. Rinse skin
	with water/shower.	
	P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes present and easy to do. Continue rinsing.	3. Remove contact lenses, if
Storage:	P405 Store locked up.	
Disposal:	P501 Dispose of contents/container in accordance with local/regional/national/	international regulations.
3 Composition/information on ingredient	<u> </u>	
Chemical characterization:	2	
Designation: (CAS#)	3-Cyclopentylpropionic acid (CAS# 140-77-2): 100%	
Identification numbér(s): EINECS Number:		
	205-433-0	
4 First aid measures		
After inhalation	Supply fresh air. If required, provide artificial respiration. Keep patient warm. C	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 docto Seek immediate medical advice.	or.
Alter Swallowing		
5 Fire fighting measures		
Suitable extinguishing agents	CO2, extinguishing powder or water jet. Fight larger fires with water jet or alcoh	nol-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		
	Wear protective equipment. Keep unprotected persons away.	
Person-related safety precautions:	Ensure adequate ventilation	
Manager for any iron mantal protoction	Keep away from ignition sources	
Measures for environmental protection: Measures for cleaning/collecting:	Do not allow material to be released to the environment without proper governr Absorb with liquid-binding material (sand, diatomite, acid binders, universal bin	mental permits.
mousaros for cleaning, concerning.	Ensure adequate ventilation	
Additional information:	Keep away from ignition sources. 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.	
Information about protection against	Ensure good ventilation/exhaustion at the workplace.	
explosions and fires:	Keep ignition sources away - Do not smoke.	
	Protect against electrostatic charges.	
<b>0</b>	Fumes can combine with air to form an explosive mixture.	
Storage Requirements to be met by storerooms and		
containers:	No special requirements.	
Information about storage in one common	Store away from avidizing aganta	
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.	
		(Contd. on page 2)

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## Trade name 3-Cyclopentylpropionic acid

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8 Exposure controls and personal protec	
Additional information about design of technical systems:	Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocit
Components with critical values that require monitoring at the workplace:	Not required.
Additional information: Personal protective equipment	No data
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.
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 quality and varies from manufacturer to manufacturer.
Eye protection: Body protection:	Safety glasses Face protection Protective work clothing.
9 Physical and chemical properties: General Information	
Form:	Liquid
Colour: Smell:	Colourless Not determined
Change in condition Melting point/Melting range: Boiling point/Boiling range: Sublimation temperature / start:	Not determined 130-133°C (12mm Hg) Not determined
Flash point:	47°C
Ignition temperature:	Not determined
Decomposition temperature:	Not determined
Critical values for explosion: Lower: Upper:	Not determined Not determined
Steam pressure:	Not determined
Density at 20°C	0.996 g/cm <sup>3</sup>
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
1 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.
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.
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	
	ross-border/domestic)
Land transport ADR/RID and GGVS/GGVE (c	
Land transport ADR/RID and GGVS/GGVE (C	
ADR/RID-GGVS/E Class: Kemler Number: UN-Number: Packaging group: Label Designation of goods:	3 (F1) Flammable liquids. 30 1993 III 3 1993 FLAMMABLE LIQUID, N.O.S. (not viscous) (3-Cyclopentylpropionic acid)
ADR/RID-GGVS/E Class: Kemler Number: UN-Number: Packaging group: Label	30 1993 III 3

## Safety Data Sheet according to 1907/2006/EC, Article 31

Printing date 21.07.2010		Revision: 21.07.2010		
Trade name <b>3-Cyclopentylpropionic acid</b>				
		(Contd. of page 2)		
Tunnel restriction code	D/E			
Maritime transport IMDG/GGVSea:				
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IMDG/GGVSea Class: UN Number: Label Packaging group: Marine pollutant: Correct technical name:	3 1993 3 III No FLAMMABLE LIQUID, N.O.S. (3-Cyclopentylpropionic acid)			
Air transport ICAO-TI and IATA-DGR:				
ICAO/IATA Class:	3			
UN/ID Number: Label	1993 3			
Packaging group:	ÎI.			
Correct technical name:	FLAMMABLE LIQUID, N.O.S. (3-Cyclopentylpropionic acid)			
UN "Model Regulation":	UN1993, FLAMMABLE LIQUID, N.O.S., 3, III			
15 Regulatory information				
Designation according to EC guidelines:				
Code letter and hazard designation of				
product:	Xi Irritant			
Risk phrases:	10 Flammable. 36/37/38 Irritating to eyes, respiratory system and skin.			
Safety phrases:	<ul> <li>7 Keep container tightly closed.</li> <li>26 In case of contact with eyes, rinse immediately with plenty of water ar</li> <li>33 Take precautionary measures against static discharges.</li> <li>37 Wear suitable gloves.</li> <li>60 This material and its container must be disposed of as hazardous water</li> </ul>			
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 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 she Contact:	et: Health, Safety and Environmental Department. Zachariah Holt			
Abbreviations and acronyms:	ADR: Accord européen sur le transport des marchandises dangereuses par Route (European A Dangerous Goods by Road) RID: Réglement international concernant le transport des marchandises dangereuses par chem Transport of Dangerous Goods by Rail) IMDG: International Maritime Code for Dangerous Goods IATA: International Air Transport Association ATA: DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IAT/ 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 EINECS: European Inventory of Existing Commercial Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society)	greement concerning the International Carriage of in de fer (Regulations Concerning the International 4)		
	CAS. Chemical Abstracts Service (division of the American Chemical Society)	GB		