Revision:	21.	.08.	2010	

Printing date 21.08.2010		Revision: 21.08.2010	
1 Identification of substance			
Product details			
Trade name	<u>(S)-(+)-2-Phenylpropionic acid</u>		
Stock number:	L08802		
Manufacturer/Supplier:	Alfa Aesar GmbH & Co.KG Benzstrasse 3	E-mail: acat@matthey.com	
	D-76185 Karlsruhe / Germany	E-mail: gcat@matthey.com 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 Hozarda identification	<b>~</b> ()		
2 Hazards identification Hazard designation:			
riazaru uesignation.	Xi Irritant		
Information pertaining to particular dangers			
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 eve irritation		
Prevention:	P261 Avoid breathing dust/fume/gas/mist/vapours/spray.		
Response:	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. R	emove contact lenses if	
	present and easy to do. Continue rinsing.		
Storage:	P405 Store locked up.		
Dispošal:	P501 Dispose of contents/container in accordance with local/regional/national/inte	rnational regulations.	
3 Composition/information on ingredient	S		
Chemical characterization:	(0) (1) 0 Discussion in the still (0A 0// 7700 04 0) 400%		
Designation: (CAS#)	(S)-(+)-2-Phenylpropionic acid (CAS# 7782-24-3): 100%		
4 First aid measures			
After inhalation	Supply fresh air. If required, provide artificial respiration. Keep patient warm. Cons persist.	sult doctor if symptoms	
	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.		
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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		
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 government	ntal permits.	
Measures for cleaning/collecting: Additional information:	Ensure adequate ventilation. See Section 7 for information on safe handling		
	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	•		
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:	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.		
8 Exposure controls and personal protec Additional information about design of	แบก		
technical systems:	Properly operating chemical fume hood designed for hazardous chemicals and ha	ving an average face velocity	
Componente with evident values that so with	of at least 100 feet per minute.		
Components with critical values that require monitoring at the workplace:	Not required.		
Additional information:	No datà		
Personal protective equipment General protective and hygienic measures	The usual precautionary measures should be adhered to in handling the chemical	s.	
	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.		
	Wash hands during breaks and at the end of the work.		
Breathing equipment:	Use preatning protection with high concentrations.		
Protection of hands:	Check protective gloves prior to each use for their proper condition.	(Contd. on page 2)	
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rade name (S)-(+)-2-Phenylpropionic a Material of gloves	ICIC (Contd. of page :
Material of gloves	(Contd. of page :
Penetration time of glove material Eye protection:	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: Colour:	Crystalline White
Smell:	Not determined
Change in condition Melting point/Melting range: Boiling point/Boiling range: Sublimation temperature / start:	30-34°C 264-266°C Not determined
Flash point:	> 110°C
Ignition temperature:	Not determined
Decomposition temperature: Danger of explosion:	Not determined Product is not explosive.
Critical values for explosion:	
Lower: Upper:	Not determined Not determined
Steam pressure:	Not determined
Density at 20°C	1.1 g/cm <sup>3</sup>
Solubility in / Miscibility with Water:	Slightly soluble
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
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:	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	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	(cross-border/domestic)
ADR/RID-GGVS/E Class: Maritime transport IMDG/GGVSea: IMDG/GGVSea Class: Marine pollutant:	None None No
Air transport ICAO-TI and IATA-DGR: ICAO/IATA Class:	
Transport/Additional information:	None 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:	36/37/38 Irritating to eyes, respiratory system and skin. 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. 37 Wear suitable gloves.
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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## Trade name (S)-(+)-2-Phenylpropionic acid

	(Contd. of page 2)
Water hazard class:	Water hazard class 1 (Self-assessment): slightly hazardous for water.
<b>16 Other information:</b> Employers should use this information of this information to ensure proper use an not in conformance with this Material Sa	only as a supplement to other information gathered by them, and should make independent judgement of suitability of nd protect the health and safety of employees. This information is furnished without warranty, and any use of the product afety Data Sheet, or in combination with any other product or process, is the responsibility of the user.
Department issuing data specificatio Contact: Abbreviations and acronyms:	n 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 Maritime Code for Dangerous Goods IATA: International Kir 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)