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	according to 1907/2006/EC, Article 31	
Printing date 06.08.2010		Revision: 06.08.2010
1 Identification of substance		
Product details		
Trade name	(R)-(-)-1,3-Butanediol	
Stock number:	B25124. L11009	
Manufacturer/Supplier:	Alfa Aesar GmbH & Co.KG	
	Benzstrasse 3	E-mail: gcat@matthey.com
In farme in a damante and	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		
	vaid	
Hazard designation: Information pertaining to particular dangers	void	
Information pertaining to particular dangers for man and environment	void	
GHS label elements	Void	
3 Composition/information on ingredient	S	
Chemical characterization:		
Designation: (CAS#)	(R)-(-)-1,3-Butanediol (CAS# 6290-03-5): 100%	
Identification number(s): EINECS Number:	228-532-0	
4 First aid measures		
After inhalation	Supply fresh air. If required, provide artificial respiration. Keep patient warm. Cons	sult doctor if symptoms
	persist. Seek immediate medical advice.	
After skin contact	Instantly wash with water and soap and rinse thoroughly.	
After eye contact	Seek immediate medical advice. Rinse opened eve for several minutes under running water. Then consult doctor.	
After swallowing	Seek medical treatment.	
5 Fire fighting measures		
5 Fire fighting measures	COO aution victor and a constant of Fight langer first with water ist an electrol	na siste at fa sur
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 toam.
products of combustion or flue gases:	Can be released in case of fire:	
Protective equipment:	Carbon monoxide and carbon dioxide Wear self-contained breathing apparatus.	
i loteetive equipment.	Wear full protective suit.	
6 Appidental release measures		
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 dovernment	ntal permits.
Measures for cleaning/collecting: Additional information:	Absorb with liquid-binding material (sand, diatomite, acid binders, universal binder	s, sawdust).
Additional mormation.	Absorb with liquid-binding material (sand, diatomite, acid binders, universal binder 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. 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 water.	
	Store away from oxidizing agents.	
Further information about storage conditions:	This product is hygroscopic.	
	Keep container tightly sealed.	
	Store in cool, dry conditions in well sealed containers. Protect from humidity and keep away from water.	
8 Exposure controls and personal protec	tion	
Additional information about design of	Dreparky expertise chamical forms have designed for homeodeus should be the	
technical systems:	Properly operating chemical fume hood designed for hazardous chemicals and ha of at least 100 feet per minute.	wing an average face velocity
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 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.	
Breathing equipment:	Use breathing protection with high concentrations.	
Protection of hands: Material of gloves	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 Protective work clothing.	
	r rotoonto work olouning.	
9 Physical and chemical properties:		
General Information		
Form:	Liquid	
		(Contd. on page 2)

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

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Revision: 06.08.2010

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CAS: Chemical Abstracts Service (division of the American Chemical Society)	Employers should use this information only as a this information to ensure proper use and prote not in conformance with this Material Safety Da Department issuing data specification sheet Contact:	ta Sheet, or in combination with any other product or process, is the responsibility of the user. :: Health, Safety and Environmental Department.	