1 mining date 20.07.2010	
1 Identification of substance	
Product details	
Trade name	1,5-Dibromo-3-methylpentane
Stock number:	B20521
Manufacturer/Supplier:	Alfa Aesar GmbH & Co.KG
	Benzstrasse 3 E-mail: gcat@matthey.com
Informing department: Emergency information:	Product safety department. Gittpotruf Universität Mainz / Poison Information Center Mainz
Emergency mornation.	Giftnotruf Universität Mainz / Poison Information Center Mainz www.giftinfo.uni-mainz.de Telefon:+49(0)6131/19240
2 Hazards identification	
Hazard designation:	Xi Irritant
Information pertaining to particular dangers for man and environment	R 36/38 Irritating to eyes and skin.
GHS label elements	
	Warning
	H315 - Causes skin irritation.
Prevention:	H319 - Causes serious eve irritation
Response:	P280 Wear protective gloves. 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 ingredient	
Chemical characterization:	
Designation: (CAS#)	1,5-Dibromo-3-methylpentane (CAS# 4457-72-1)
4 First aid measures	
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 soap and rinse thoroughly. Seek immediate medical advice.
After eye contact	Rinse opened eye for several minutes under running water. Then consult doctor.
After swallowing	Seek immediate medical advice.
5 Fire fighting measures	
Suitable extinguishing agents	Use carbon dioxide, extinguishing powder or foam. Water may be ineffective but may be used for cooling
	exposed containers.
Special hazards caused by the material, its products of combustion or flue gases:	Can be released in case of fire:
products of combustion of fide gases.	Carbon monoxide and carbon dioxide
Protective equipment:	Hydrogen bromide (HBr) Wear self-contained breathing apparatus.
r rotective equipment.	Wear full protective suit.
C Assidental valance 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 governmental permits.
Measures for cleaning/collecting:	Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Additional information:	See Section 7 for information on safe handling See section 8 for information on personal protection equipment.
	See Section 3 for information on disposal.
7 Handling and storage	
Handling	Keep containers tightly cooled
Information for safe handling:	Keep containers tightly sealed. Store in cool, dry place in tightly closed containers.
Information about protoction against	Ensure good ventilation/exhaustion at the workplace.
Information about protection against explosions and fires:	No information known.
Storage	
Requirements to be met by storerooms and containers:	No special requirements
Information about storage in one common	No special requirements.
storage facility:	Store away from oxidizing agents. Store away from strong bases.
Further information about storage	
conditions:	Keep container tightly sealed. Store in cool, dry conditions in well sealed containers.
8 Exposure controls and personal protect	tion
Additional information about design of	
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 datà
Personal protective equipment General protective and hygienic measures	The usual precautionary measures should be adhered to in bandling the chemicals
Constal protoctive and hygicine measures	Keep away from foodstuffs, beverages and food.
	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: Eye protection:	Use breathing protection with high concentrations. Safety glasses
	Face protection
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Frade name 1,5-Dibromo-3-methylpenta	
Body protection:	Protective work clothing. (Contd. of page
9 Physical and chemical properties:	
General Information	
Form: Colour: Smell:	Liquid Colourless Not determined
Change in condition Melting point/Melting range:	Not determined
Boiling point/Boiling range: Sublimation temperature / start:	233°C Not determined
Flash point:	101°C
Ignition temperature:	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	1.58 g/cm <sup>3</sup>
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. Oxidizing agents
Dangerous reactions:	Bases No dangerous reactions known
Dangerous products of decomposition:	Carbon monoxide and carbon dioxide Hydrogen bromide
1 Toxicological information	
Acute toxicity: Primary irritant effect:	
on the skin:	Irritant for skin and mucous membranes.
on the eye: Sensitization:	Irritant effect. No sensitizing effect known.
Additional toxicological information:	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.
3 Disposal considerations	
Product: Recommendation	Consult state, local or national regulations for proper disposal.
Recommendation	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.
4 Transport information	
Land transport ADR/RID and GGVS/GGVE (	
ADR/RID-GGVS/E Class: Maritime transport IMDG/GGVSea:	None
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.
5 Regulatory information	
Designation according to EC guidelines:	
Code letter and hazard designation of	
product:	Xi Irritant
Risk phrases:	36/38 Irritating to eyes and skin.
Safety phrases:	26 In case of contact with eves, 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.
Water hazard class:	Employment restrictions concerning young persons must be observed. Water hazard class 1 (Self-assessment): slightly hazardous for water.
	GB (Contd. on page

## Trade name 1,5-Dibromo-3-methylpentane

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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 sheet: Health, Safety and Environmental Department.   Contact: Abbreviations and acronyms:   Abbreviations and acronyms: Abbreviations and acronyms:   Dargerous Goods by Road) RD: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)   RD: Reglement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Carriage of Dangerous Goods by Rail)   IMDG: International Air Transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Air Transport Association)   IMDG: International Air Transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Air Transport Association)   IMDG: International Air Transport Association   IATA: International Air Transport Association   ICAO: International Civil Aviation Organization   ICAO: International Civil Aviation Organization   ICAO: International Air Strate System of Classification and Labelling of Chemicals   CAS: Chemical Abstracts Service (division of the American Chemical Society)