1 Identification of substance Product details		
Trade name	2-Amino-3-chloropyrazine	
Stock number:	H27215	
Manufacturer/Supplier:	Alfa Aesar GmbH & Co.KG	
	Benzstrasse 3 D-76185 Karlsruhe / Germany	E-mail: gcat@matthey.com www.alfa-chemcat.com
Informing department:	Product safety department	www.unu onomoul.com
Emergency information:	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 36/37/38 Irritating to eyes, respiratory system and skin.	
GHS label elements		
	Warning	
	H315 - Causes skin irritation. H319 - Causes serious eve irritation.	
	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. P3054P351+P338 IE IN EVES: Rise cautiously with water for several minutes. Rem	
Prevention: Response:	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. Rem and easy to do. Continue rinsing.	nove contact lenses, if present
	P321 Specific treatment (see on this label).	
Storage: Disposal:	P405 Store locked up. P501 Dispose of contents/container in accordance with local/regional/national/interna	ational regulations.
3 Composition/information on ingredient Chemical characterization:	3	
Designation: (CAS#)	2-Amino-3-chloropyrazine (CAS# 6863-73-6): 100%	
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 After swallowing	Rinse opened eye for several minutes under running water. Then consult doctor. Seek immediate medical advice.	
5 Fire fighting measures	CO2, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-res	istant foam
Suitable extinguishing agents Special hazards caused by the material, its		Islahi iyani.
products of combustion or flue gases:	Can be released in case of fire: Carbon monoxide and carbon dioxide	
	Nitrogen oxides (NOx) Hydrogen chloride (HCl) Wear self-contained breathing apparatus.	
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 governmental	permits.
Measures for cleaning/collecting: Additional information:	Ensure adequate ventilation. See Section 7 for information on safe handling See section 8 for information on personal protection equipment.	
	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:		
Handling		
Handling Information for safe handling: Information about protection against	Keep containers tightly sealed. Store in cool, dry place in tightly closed containers. Ensure good ventilation/exhaustion at the workplace.	
Handling Information for safe handling: Information about protection against explosions and fires:		
Handling Information for safe handling: Information about protection against explosions and fires: Storage Requirements to be met by storerooms and	Keep containers tightly sealed. Store in cool, dry place in tightly closed containers. Ensure good ventilation/exhaustion at the workplace. Keep ignition sources away - Do not smoke.	
Handling Information for safe handling: Information about protection against explosions and fires: Storage Requirements to be met by storerooms and containers: Information about storage in one common	Keep containers tightly sealed. Store in cool, dry place in tightly closed containers. Ensure good ventilation/exhaustion at the workplace. Keep ignition sources away - Do not smoke. No special requirements.	
Handling Information for safe handling: Information about protection against explosions and fires: Storage Requirements to be met by storerooms and containers: Information about storage in one common storage facility: Further information about storage	Keep containers tightly sealed. Store in cool, dry place in tightly closed containers. Ensure good ventilation/exhaustion at the workplace. Keep ignition sources away - Do not smoke. No special requirements. Store away from oxidizing agents.	
Handling Information for safe handling: Information about protection against explosions and fires: Storage Requirements to be met by storerooms and containers: Information about storage in one common	Keep containers tightly sealed. Store in cool, dry place in tightly closed containers. Ensure good ventilation/exhaustion at the workplace. Keep ignition sources away - Do not smoke. No special requirements. Store away from oxidizing agents. Keep container tightly sealed.	
Handling Information for safe handling: Information about protection against explosions and fires: Storage Requirements to be met by storerooms and containers: Information about storage in one common storage facility: Further information about storage conditions:	Keep containers tightly sealed. Store in cool, dry place in tightly closed containers. Ensure good ventilation/exhaustion at the workplace. Keep ignition sources away - Do not smoke. No special requirements. Store away from oxidizing agents. Keep container tightly sealed. Store in cool, dry conditions in well sealed containers.	
Handling Information for safe handling: Information about protection against explosions and fires: Storage Requirements to be met by storerooms and containers: Information about storage in one common storage facility: Further information about storage conditions: 8 Exposure controls and personal protect	Keep containers tightly sealed. Store in cool, dry place in tightly closed containers. Ensure good ventilation/exhaustion at the workplace. Keep ignition sources away - Do not smoke. No special requirements. Store away from oxidizing agents. Keep container tightly sealed. Store in cool, dry conditions in well sealed containers.	
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Handling Information for safe handling: Information about protection against explosions and fires: Storage Requirements to be met by storerooms and containers: Information about storage in one common storage facility: Further information about storage conditions: 8 Exposure controls and personal protect Additional information about design of technical systems:	Keep containers tightly sealed. Store in cool, dry place in tightly closed containers. Ensure good ventilation/exhaustion at the workplace. Keep ignition sources away - Do not smoke. No special requirements. Store away from oxidizing agents. Keep container tightly sealed. Store in cool, dry conditions in well sealed containers. tion	g an average face velocity of at
Handling Information for safe handling: Information about protection against explosions and fires: Storage Requirements to be met by storerooms and containers: Information about storage in one common storage facility: Further information about storage conditions: <i>8 Exposure controls and personal protect</i> Additional information about design of technical systems: Components with critical values that require monitoring at the workplace:	Keep containers tightly sealed. Store in cool, dry place in tightly closed containers. Ensure good ventilation/exhaustion at the workplace. Keep ignition sources away - Do not smoke. No special requirements. Store away from oxidizing agents. Keep container tightly sealed. Store in cool, dry conditions in well sealed containers. tion Properly operating chemical fume hood designed for hazardous chemicals and havin least 100 feet per minute.	g an average face velocity of at
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	Safety Data Sheet according to 1907/2006/EC, Article 31
Printing date 10.08.2010	Revision: 10.08.2010
Trade name 2-Amino-3-chloropyrazine	
Personal protective equipment General protective and hygienic measures Breathing equipment:	(Contd. of page 1) 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. Use breathing protection with high concentrations.
Protection of hands: Material of gloves Penetration time of glove material	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. Impervious gloves Not determined
Eye protection:	Safety glasses Face protection
Body protection:	Protective work clothing.
9 Physical and chemical properties:	
General Information	
Form: Colour: Smell:	Crystalline powder White Not determined
Change in condition Melting point/Melting range: Boiling point/Boiling range: Sublimation temperature / start:	218-221°C Not determined Not determined
Flash point:	Not applicable
Ignition temperature:	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
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 Nitrogen oxides (NOx) Hydrogen chloride (HCI)
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	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	
Land transport ADR/RID and GGVS/GGVE (c ADR/RID-GGVS/E Class:	ross-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
	(Contd. on page 3) GB

Revision: 10.08.2010

rade name 2-Amino-3-chloropyrazine		
	(Contd. of page 2)	
Transport/Additional information:	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:	36/37/38 Irritating to eyes, respiratory system and skin.	
Safety phrases:	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.	
Water hazard class:	Water hazard class 1 (Self-assessment): slightly hazardous for water.	
	s a supplement to other information gathered by them, and should make independent judgement of suitability of this the health and safety of employees. This information is furnished without warranty, and any use of the product not in heet, or in combination with any other product or process, is the responsibility of the user.	
Department issuing data specification she Contact: Abbreviations and acronyms:	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: Réglement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail) IMDE: International Maritime Code for Dangerous Goods IATA: International Maritime Code for Dangerous Goods IATA: International Air Transport Association IATA: DER: Dangerous Goods Regulations by the "International Air Transport Association" (IATA) ICAO: International Covil Avisition Organization ICAO: Th: Technical Instructions by the "International Cavitation Organization" (ICAO) GHS: Globally Harmonized System of Classification and Labelling of Chemicals CAS: Chemical Abstracts Service (division of the American Chemical Society)	