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Printing date 14.07.2010 Revision: 14.07.2010

1 Identification of substance

Product details

Trade name 2-Isobutylpyrazine

Stock number:

Manufacturer/Supplier:

Alfa Aesar GmbH & Co.KG Benzstrasse 3

D-76185 Karlsruhe / Germany

Product safety department.

Informing department: Emergency information:

Giftnotruf Universität Mainz / Poison Information Center Mainz www.giftinfo.uni-mainz.de Telefon:+49(0)6131/19240

2 Hazards identification

Hazard designation:

Information pertaining to particular dangers for man and environment

GHS label elements

void

Not applicable

Void

3 Composition/information on ingredients

Chemical characterization: Designation: (CAS#) Identification number(s):

2-Isobutylpyrazine (CAS# 29460-92-2): 100%

EINECS Number: 249-647-2

4 First aid measures

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist. Seek immediate medical advice.

Instantly wash with water and soap and rinse thoroughly. After inhalation

After skin contact

Seek immediate medical advice

Rinse opened eye for several minutes under running water. Then consult doctor. Seek medical treatment. After eye contact After swallowing

5 Fire fighting measures

Suitable extinguishing agents 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 Nitrogen oxides (NOx)

Protective equipment: Wear self-contained breathing apparatus.

Wear full protective suit.

6 Accidental release measures

Person-related safety precautions:

Measures for environmental protection: Measures for cleaning/collecting: Additional information:

Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation
Do not allow material to be released to the environment without proper governmental permits.
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
See Section 7 for information on safe handling
See section 8 for information on personal protection equipment.
See Section 13 for information on disposal.

CO2, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.

Keep ignition sources away - Do not smoke.

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:

Storage Requirements to be met by storerooms and containers: Information about storage in one common

storage facility: Further information about storage

conditions:

No special requirements.

Store away from oxidizing agents.

Keep container tightly sealed. Store in cool, dry conditions in well sealed containers.

8 Exposure controls and personal protection

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 data

Personal protective equipment

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.
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.
Safety glasses
Protective work clothing.

Breathing equipment: Protection of hands: Material of gloves

9 Physical and chemical properties:

General Information

Form: Liquid Not determined Smell:

Change in condition Melting point/Melting range:

Eye protection: Body protection:

Not determined

(Contd. on page 2)

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

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Trade name 2-Isobutylpyrazine (Contd. of page 1) Boiling point/Boiling range: Sublimation temperature / start: Not determined Not determined Flash point: Not determined Ignition temperature: Not determined **Decomposition temperature:** Not determined Danger of explosion: Product is not explosive Critical values for explosion: Lower: Not determined Upper: 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)

11 Toxicological information

Acute toxicity: Primary irritant effect: on the skin: on the eye: Sensitization Additional toxicological information:

May cause irritation May cause irritation

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 (cross-border/domestic)
ADR/RID-GGVS/E Class:
None

Maritime transport IMDG/GGVSea: IMDG/GGVSea Class:

Marine pollutant:

Air transport ICAO-TI and IATA-DGR: ICAO/IATA Class:

None

None

No

Transport/Additional information: Not dangerous according to the above specifications

15 Regulatory information

Designation according to EC guidelines:

Observe the normal safety regulations when handling chemicals The product is not subject to identification regulations under EC Directives and the Ordinance on Hazardous Materials (GefStoffV).

National regulations

Information about limitation of use: For use only by technically qualified individuals.

Water hazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.

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.

Contact: Abbreviations and acronyms:

Department issuing data specification sheet: Health, Safety and Environmental Department.

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 RiD: Règlement international Maritime Code for Dangerous Goods Parai)

IMDG: International Air 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

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)