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Printing date 02.08.2010 Revision: 02.08.2010

1 Identification of substance

Product details

Trade name N,N-Diethyl-4-nitrosoaniline

Stock number:

Manufacturer/Supplier:

Alfa Aesar GmbH & Co.KG Benzstrasse 3

D-76185 Karlsruhe / Germany

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

Hazard designation:

T Toxic F Highly flammable

Information pertaining to particular dangers

for man and environment

Highly flammable.
 23/24/25 Toxic by inhalation, in contact with skin and if swallowed.
 Danger of cumulative effects.

GHS label elements

Danger

H228 - Flammable solid.



Danger

H301 - Toxic if swallowed H311 - Toxic in contact with skin. H330 - Fatal if inhaled.



H373 - May cause damage to organs through prolonged or repeated exposure.
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P320 Specific treatment is urgent (see on this label).
Remove/Take off immediately all contaminated clothing. Prevention:

Response:

P405 Store locked up.

Storage: Disposal: P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

3 Composition/information on ingredients

Chemical characterization:

N,N-Diethyl-4-nitrosoaniline (CAS# 120-22-9): 100%

Designation: (CAS#)
Identification number(s):
EINECS Number: 204-379-5

4 First aid measures

General information

Instantly remove any clothing soiled by the product.
Remove breathing apparatus only after soiled clothing has been completely removed.
In case of irregular breathing or respiratory arrest provide artificial respiration.
Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms After inhalation

persist. Seek immediate medical advice.

Instantly wash with water and soap and rinse thoroughly. Seek immediate medical advice. After skin contact

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

Do not induce vomiting; instantly call for medical help. 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: Carbon monoxide and carbon dioxide Nitrogen oxides (NOx) Wear self-contained breathing apparatus.

Protective equipment: Wear full protective suit.

6 Accidental release measures

Person-related safety precautions:

Measures for environmental protection: Measures for cleaning/collecting:

Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation
Keep away from ignition sources
Do not allow material to be released to the environment without proper governmental permits.
Dispose of contaminated material as waste according to item 13.

Ensure adequate ventilation.

Additional information:

See Section 8 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

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.

Open and handle container with care.

Information about protection against

explosions and fires:

Keep ignition sources away - Do not smoke. Protect against electrostatic charges.

Requirements to be met by storerooms and containers:

Store in cool location.

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

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Trade name N,N-Diethyl-4-nitrosoaniline

Information about storage in one common

storage facility: Further information about storage

conditions:

Store away from oxidizing agents.

Keep container tightly sealed. Store in cool, dry conditions in well sealed containers. Store in a locked cabinet or with access restricted to technical experts or their assistants.

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. Store protective clothing separately. Avoid contact with the eyes and skin. 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. Impervious gloves

Breathing equipment: Protection of hands: Material of gloves

Penetration time of glove material

Eye protection:

Impervious gloves Not determined Safety glasses
Face protection
Protective work clothing.

Body protection:

9 Physical and chemical properties:

Canaral	Information

Powder Form: Green Not determined Colour: Smell:

Change in condition Melting point/Melting range: Boiling point/Boiling range: Sublimation temperature / start: 80-84°C Not determined Not determined Flash point: Not applicable Inflammability (solid, gaseous) Highly flammable. Ignition temperature: Not determined

Decomposition temperature:

Critical values for explosion:

Not determined Upper: Not determined Steam pressure: Not determined Density Not determined

Solubility in / Miscibility with Water:

Insoluble

10 Stability and reactivity

Thermal decomposition / conditions to be avoided:

Materials to be avoided: Dangerous reactions:

No decomposition if used and stored according to specifications.

Not determined

Dangerous products of decomposition:

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.

Danger by skin resorption.

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.

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14 Transport information

Land transport ADR/RID and GGVS/GGVE (cross-border/domestic)



ADR/RID-GGVS/E Class: Kemler Number: 4.1 (FT1) Flammable solids, self-reactive substances and solid desensitised explosives.

46 2926 UN-Number: ίì Packaging group:

4.1+6.1 2926 FLAMMABLE SOLID, TOXIC, ORGANIC, N.O.S. (N,N-Diethyl-4-nitrosoaniline) Label

Designation of goods: Limited quantities (LQ) Transport category LQ0 2 E Tunnel restriction code

Maritime transport IMDG/GGVSea:



IMDG/GGVSea Class: UN Number: 4.1 2926 Label
Packaging group:
Marine pollutant:
Correct technical name: 4.1+6.1 II

FLAMMABLE SOLID, TOXIC, ORGANIC, N.O.S. (N,N-Diethyl-4-nitrosoaniline)

Air transport ICAO-TI and IATA-DGR:



ICAO/IATA Class: UN/ID Number: 4.1 2926 4.1+6.1

Packaging group: Correct technical name: FLAMMABLE SOLID, TOXIC, ORGANIC, N.O.S. (N,N-Diethyl-4-nitrosoaniline)

UN "Model Regulation": UN2926, FLAMMABLE SOLID, TOXIC, ORGANIC, N.O.S., 4.1 (6.1), II

15 Regulatory information

Designation according to EC guidelines:

Code letter and hazard designation of

product:



T Toxic F Highly flammable

Risk phrases:

Highly flammable.
 23/24/25 Toxic by inhalation, in contact with skin and if swallowed.
 Danger of cumulative effects.

Safety phrases:

 Keep container tightly closed.
 Keep away from sources of ignition - No smoking.
 Wear suitable protective clothing and gloves.
 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

National regulations

Employment restrictions concerning young persons must be observed. For use only by technically qualified individuals. Information about limitation of use:

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

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: Zachariah Holt

Abbreviations and acronyms:

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)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

IATA: DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

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)