

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

Revision: 19.08.2010

Printing date 19.08.2010

1 Identification of substance**Product details**

Trade name

2-Amino-1,3,4-thiadiazole

Stock number:

L01244

Manufacturer/Supplier:

Alfa Aesar GmbH & Co.KG
Benzstrasse 3
D-76185 Karlsruhe / GermanyE-mail: gcat@matthey.com
www.alfa-chemcat.com

Informing department:

Product safety 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:



Xn Harmful

Information pertaining to particular dangers for man and environment

R 22 Harmful if swallowed.
R 68 Possible risk of irreversible effects.
R 63 Possible risk of harm to the unborn child.

GHS label elements

**Danger**

H301 - Toxic if swallowed.

**Warning**H341 - Suspected of causing genetic defects.
H361 - Suspected of damaging fertility or the unborn child.
P281 Use personal protective equipment as required.
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P308+P313 IF exposed or concerned: Get medical advice/attention.
P321 Specific treatment (see on this label).
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Prevention:

Response:

Storage:

Disposal:

3 Composition/information on ingredients

Chemical characterization:

Designation: (CAS#)

Identification number(s):

EINECS Number:

2-Amino-1,3,4-thiadiazole (CAS# 4005-51-0): 100%

223-657-7

4 First aid measures

After inhalation

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

After skin contact

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

After eye contact

Seek immediate medical advice.

After swallowing

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

Seek immediate medical advice.

5 Fire fighting measures

Suitable extinguishing agents

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

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)
Sulphur oxides (SOx)

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:

Dispose of contaminated material as waste according to item 13.

Additional information:

See Section 7 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.

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 oxidizing agents.

Further information about storage conditions:

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:

Not required.

Additional information:

No data

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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.
Breathing equipment: Protection of hands: Material of gloves	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.
Penetration time of glove material Eye protection: Body protection:	Impervious gloves Not determined Safety glasses Protective work clothing.

9 Physical and chemical properties:**General Information**

Form:	Powder
Colour:	White Grey
Smell:	Not determined

Change in condition	
Melting point/Melting range:	188-194°C
Boiling point/Boiling range:	Not determined
Sublimation temperature / start:	Not determined

Flash point:	Not applicable
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Ignition temperature:	Not determined
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Decomposition temperature:	Not determined
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Danger of explosion:	Product is not explosive.
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Critical values for explosion:	
Lower:	Not determined
Upper:	Not determined

Steam pressure:	Not determined
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Density	Not determined
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10 Stability and reactivity

Thermal decomposition / conditions to be avoided:	No decomposition if used and stored according to specifications.
Materials to be avoided:	Oxidizing agents
Dangerous reactions:	No dangerous reactions known
Dangerous products of decomposition:	Carbon monoxide and carbon dioxide Nitrogen oxides (NO _x) Sulphur oxides (SO _x)

11 Toxicological information**Acute toxicity:****LD/LC50 values that are relevant for classification:**

Oral LD50	253 mg/kg (rat)
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Primary irritant effect:

on the skin:	Irritant for skin and mucous membranes.
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on the eye:	Irritant effect.
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Sensitization:	No sensitizing effect known.
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Other information (about experimental toxicology):	Reproductive effects have been observed on tests with laboratory animals.
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Additional toxicological information:	To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.
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	Possible risk of harm to the unborn child.
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	No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.
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12 Ecological information:**Additional ecological information:**

General notes:	Do not allow product to reach ground water, water bodies or sewage system. Water hazard class 2 (Self-assessment): hazardous for water. Danger to drinking water if even small quantities leak into soil. Do not allow material to be released to the environment without proper governmental permits.
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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.
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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:	6.1 (T2) Toxic substances.
Kemler Number:	60
UN-Number:	2811
Packaging group:	III
Label	6.1

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Designation of goods: 2811 TOXIC SOLID, ORGANIC, N.O.S. (2-Amino-1,3,4-thiadiazole)

Maritime transport IMDG/GGVSea:



IMDG/GGVSea Class: 6.1
UN Number: 2811
Label: 6.1
Packaging group: III
Marine pollutant: No
Correct technical name: TOXIC SOLID, ORGANIC, N.O.S. (2-Amino-1,3,4-thiadiazole)

Air transport ICAO-TI and IATA-DGR:



ICAO/IATA Class: 6.1
UN/ID Number: 2811
Label: 6.1
Packaging group: III
Correct technical name: TOXIC SOLID, ORGANIC, N.O.S. (2-Amino-1,3,4-thiadiazole)

UN "Model Regulation": UN2811, TOXIC SOLID, ORGANIC, N.O.S., 6.1, III

15 Regulatory information

Designation according to EC guidelines:

Code letter and hazard designation of product:



Xn Harmful

Risk phrases:

22 Harmful if swallowed.
 68 Possible risk of irreversible effects.
 63 Possible risk of harm to the unborn child.

Safety phrases:

36/37 Wear suitable protective clothing and 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 2 (Self-assessment): 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:

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 Transport of Dangerous Goods by Rail)
 IMDG: 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-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)
 LC50: Lethal concentration, 50 percent
 LD50: Lethal dose, 50 percent

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