

Material Safety Data Sheet
acc. to OSHA and ANSI

Printing date 11/10/2008

Reviewed on 11/10/2008

1 Identification of substance:

Product details:

Product name: 3-Aminopropionitrile

Stock number:
A13043
L05999

Manufacturer/Supplier:
Alfa Aesar, A Johnson Matthey Company
Johnson Matthey Catalog Company, Inc.
30 Bond Street
Ward Hill, MA 01835-8099
Emergency Phone: (978) 521-6300
CHEMTRREC: (800) 424-9300
Web Site: www.alfa.com

Information Department: Health, Safety and Environmental Department
Emergency information:
During normal hours the Health, Safety and Environmental Department.
After normal hours call Chemtrrec at (800) 424-9300.

2 Composition/Data on components:

Chemical characterization:
Description: (CAS#)
3-Aminopropionitrile (CAS# 151-18-8), 100%

Identification number(s):
EINECS Number: 205-786-0

3 Hazards identification

Hazard description:



C Corrosive

Information pertaining to particular dangers for man and environment
R 20/21/22 Harmful by inhalation, in contact with skin and if swallowed.
R 34 Causes burns.
R 63 Possible risk of harm to the unborn child

Classification system
HMIS ratings (scale 0-4)
(Hazardous Materials Identification System)

HEALTH	2	Health (acute effects) = 2
FIRE	2	Flammability = 2
REACTIVITY	1	Reactivity = 1

4 First aid measures

General information

Immediately remove any clothing soiled by the product.
Remove breathing apparatus only after contaminated clothing has been completely removed.
In case of irregular breathing or respiratory arrest provide artificial respiration.

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After inhalation
Supply fresh air. If required, provide artificial respiration. Keep patient warm.
Seek immediate medical advice.

After skin contact
Immediately 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 a doctor.

After swallowing
Do not induce vomiting; immediately call for medical help.
Seek immediate medical advice.

5 Fire fighting measures

Suitable extinguishing agents
Carbon dioxide, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

Special hazards caused by the material, its products of combustion or resulting gases:
In case of fire, the following can be released:
Hydrogen cyanide (HCN)
Carbon monoxide and carbon dioxide
Nitrogen oxides (NOx)

Protective equipment:
Wear self-contained respirator.
Wear fully protective impervious 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:
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
Keep away from ignition sources.

Additional information:
See Section 7 for information on safe handling
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

Handling

Information for safe handling:
Keep container tightly sealed.
Store in cool, dry place in tightly closed containers.

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Ensure good ventilation at the workplace.
Open and handle container with care.
Information about protection against explosions and fires:
Keep ignition sources away.
Protect against electrostatic charges.
Fumes can combine with air to form an explosive mixture.

Storage
Requirements to be met by storerooms and receptacles:
No special requirements.
Information about storage in one common storage facility:
Do not store together with acids.
Keep away from heat and direct sunlight.

Further information about storage conditions:
Protect from heat and direct sunlight.
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 limit values that require monitoring at the workplace:
Not required.

Additional information: No data

Personal protective equipment
General protective and hygienic measures
The usual precautionary measures for handling chemicals should be followed.
Keep away from foodstuffs, beverages and feed.
Remove all soiled and contaminated clothing immediately.
Wash hands before breaks and at the end of work.
Store protective clothing separately.
Avoid contact with the eyes and skin.

Breathing equipment:
Use suitable respirator when high concentrations are present.
Protection of hands: Impervious gloves
Eye protection: Safety glasses
Body protection: Protective work clothing.

9 Physical and chemical properties:

General Information

Form: Liquid
Odor: Amine-like

Change in condition
Melting point/Melting range: Not determined
Boiling point/Boiling range: 79-81°C (174-178°F) (16mm Hg)
Sublimation temperature / start: Not determined

Flash point: 85°C (185°F)

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Ignition temperature: Not determined

Decomposition temperature: Not determined

Danger of explosion: Product does not present an explosion hazard.

Explosion limits:
Lower: Not determined
Upper: Not determined

Vapor pressure: Not determined

Density at 20°C (68°F): 0.95 g/cm³

10 Stability and reactivity

Thermal decomposition / conditions to be avoided:
Decomposition will not occur if used and stored according to specifications.

Materials to be avoided:
Acids
Heat

Dangerous reactions No dangerous reactions known
Dangerous products of decomposition:
Hydrogen cyanide (prussic acid)
Carbon monoxide and carbon dioxide
Nitrogen oxides (NOx)

11 Toxicological information

Acute toxicity:
Primary irritant effect:
On the skin:
Corrosive effect on skin and mucous membranes.
Irritant to skin and mucous membranes.
On the eye:
Strong corrosive effect.
Irritating effect.

Sensitization: No sensitizing effects known.
Subacute to chronic toxicity:
Corrosive materials are acutely destructive to the respiratory tract, eyes, skin and digestive tract. Eye contact may result in permanent damage and complete vision loss. Inhalation may result in respiratory effects such as inflammation, edema, and chemical pneumonitis. May cause coughing, wheezing, laryngitis, shortness of breath, headache, nausea and vomiting. Ingestion may cause damage to the mouth, throat and esophagus.

May cause skin burns or irritation depending on the severity of the exposure.
Many nitriles resemble cyanides in toxicity. Exposure to nitriles may cause increased salivation, flushing of the face, eye and respiratory tract irritation, shallow respiration, nausea, vomiting, weakness, headache and diarrhea. Jaundice, anemia, and leucocytosis has been reported in some cases. Some are suspected carcinogens, teratogens or mutagens.

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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.
Danger through skin absorption.
Swallowing will lead to a strong corrosive effect on mouth and throat and to the danger of perforation of esophagus and stomach.
Possible risk of harm to the unborn child.
No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.

12 Ecological information:

General notes:
Do not allow undiluted product or large quantities of it to reach ground water, water course 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 to ensure proper disposal.

Uncleaned packagings:
Recommendation: Disposal must be made according to official regulations.

14 Transport information

DOT regulations:

Hazard class: 8
Identification number: UN2922
Packing group: III

Proper shipping name (technical name):
CORROSIVE LIQUID, TOXIC, N.O.S. (3-aminopropionitrile)

Label
8+6.1

Land transport ADR/RID (cross-border)

ADR/RID class: 8 (CT1) Corrosive substances
Danger code (Kemler): 86
UN-Number: 2922
Packaging group: III

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Description of goods: 2922 CORROSIVE LIQUID, TOXIC, N.O.S. (3-aminopropionitrile)

Maritime transport IMDG:

IMDG Class: 8
UN Number: 2922
Label: 8+6.1
Packaging group: III
Proper shipping name: CORROSIVE LIQUID, TOXIC, N.O.S. (3-aminopropionitrile)

Air transport ICAO-TI and IATA-DGR:

ICAO/IATA Class: 8
UN/ID Number: 2922
Label: 8+6.1
Packaging group: III
Proper shipping name: CORROSIVE LIQUID, TOXIC, N.O.S. (3-aminopropionitrile)

15 Regulations

Product related hazard informations:

Hazard symbols:
C Corrosive

Risk phrases:
20/21/22 Harmful by inhalation, in contact with skin and if swallowed.
34 Causes burns.
63 Possible risk of harm to the unborn child

Safety phrases:
9 Keep container in a well-ventilated place.
20 When using do not eat or drink.
23 Do not breathe gas/fumes/spray.
26 In case of contact with eyes, immediately with plenty of water and seek medical advice.
36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
45 In case of accident or if you feel unwell, seek medical advice immediately.

National regulations
All components of this product are listed in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical Substance Inventory.

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All components of this product are listed on the Canadian Domestic Substances List (DSL).

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

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 MSDS: Health, Safety and Environmental Department.
Contact: Paul V. Connolly