

Material Safety Data Sheet
acc. to OSHA and ANSI

Printing date 10/03/2005

Reviewed on 10/03/2005

1 Identification of substance:Product *details:*Product *name:* FormamideStock *number:*

A11076

L05216

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

CHEMTREC: (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 Chemtrec at (800) 424-9300.**2 Composition/Data on components:**

Chemical characterization:

Description: (CAS#)

for mide (CAS# 75-12-7); 100%

RE•CFIVFO MAR 27 7006^{ma}

Identification number(s):

EINECS Number: 200-842-0

^{EU} Number: 616-052-00-8**3 Hazards identification**Hazard *description:*

T Toxic

Information pertaining to particular dangers for man and environment

R 61 May *cause harm to the unborn child*

Classification system

HMIS ratings (scale 0-4)

(Hazardous Materials Identification System)

S4Mil—it

Health (acute effects) =

Flammability = 1

REACTIVITY fi.

Reactivity = 1

4 First aid measures

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.

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After eye contact
Rinse opened eye for several minutes under running water. Then consult a doctor.
After swallowing 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.
Protective equipment:
Wear self-contained respirator.
Wear fully protective impervious suit.

6 Accidental¹ 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.
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.
Ensure good ventilation at the workplace.
Open and handle container with care.
Information about protection against explosions and fires:
No special measures required.
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 oxidizing and acidic materials.
Store away from water/moisture.
Further information about storage conditions:
Keep container tightly sealed.
Store in cool, dry conditions in well sealed containers.

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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:

Formamide

	ppm
ACGIH TLV	10 (skin)
Belgium TWA	10 (skin)
Denmark TWA	20
Finland TWA	20, 30-STEL (skin)
France TWA	20
Ireland TWA	20, 30-STEL
Netherlands TWA	9
Russia TWA	3 mg/m ³
Switzerland TWA	20
United Kingdom TWA	20, 30-STEL

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
Color:	Colorless
Odor:	Amine-like

Change in condition

Melting point/Melting range: 2-3°C (36-37°F)

Boiling point/Boiling range: 210°C (410°F)

Sublimation temperature / start: Not determined

Flash point: 154°C (309°F)

Ignition temperature: 499°C (930°F)

Decomposition temperature: Not determined

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

Explosion limits:

Lower: Not determined

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Upper:	Not determined
Vapor pressure at 20°C (68°F):	0.1 hPa (0 mm Hg)
Density at 20°C (68°F):	1.134 g/cm ³
Solubility in / Miscibility with Water:	Fully miscible

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:

Water/moisture

Acids

Oxidizing agents

Bases

Dangerous reactions Reacts with acids, alkalis and oxidizing agents

Dangerous products of decomposition:

Nitrogen oxides

Carbon monoxide and carbon dioxide

11 Toxicological information

Acute toxicity:

LD/LC50 values that are relevant for classification:

Oral	LD50	3150 mg/kg (mus) 5577 mg/kg (rat)
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Primary irritant effect:

on the skin: Irritant to skin and mucous membranes.

on the eye: Irritating effect.

Sensitization: No sensitizing effects known.

Other information (about experimental toxicology):

Mutagenic effects have been observed on tests with bacteria.

Reproductive effects have been observed on tests with laboratory animals.

Subacute to chronic toxicity:

Formamide is irritating to skin, eyes and mucous membranes. It is an experimental teratogen. Ingestion may cause headache, dizziness, nausea, vomiting, abdominal pain and unconsciousness. May cause liver, kidney and central nervous system damage. May be absorbed through the skin with symptoms similar to ingestion. Eye contact will cause irritation and possibly corneal injury.

Additional toxicological information:

To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

The Registry of Toxic Effects of Chemical Substances (RTECS) contains tumorigenic and/or carcinogenic and/or neoplastic data for components in this product.

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:

General notes:

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.

Recommended cleansing agent: Water, if necessary with cleansing agents.

14 Transport information

Not a hazardous material for transportation.

DOT regulations:

Hazard class: None

Land transport ADR/RID (cross-border)

ADR/RID class: None

Maritime transport IMDG:

IMDG Class: None

Air transport ICAO-TI and IATA-DGR:

ICAO/IATA Class: None

Transport/Additional information:

Not dangerous according to the above specifications.

15 Regulations

Product related hazard informations:

Hazard symbols:

T Toxic

Risk phrases:

61 May cause harm to the unborn child

Safety phrases:

53 Avoid exposure - obtain special instructions before use.

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.

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.

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This product is subject to the reporting requirements of section 313 of the Emergency Planning and Community Right to Know Act of 1986 and 40CFR372.

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: Darrell R. Sanders*