

Material Safety Data Sheet

acc. to OSHA and ANSI

Printing date 05/16/2006

Reviewed on 03/07/2006

1 Identification of substance:**Product details:****Product name:** Triisopropanolamine**Stock number:** A19966**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#)**

Triisopropanolamine (CAS# 122-20-3); 100%

Identification number(s):**EINECS Number:** 204-528-4**EU Number:** 603-097-00-3**3 Hazards identification****Hazard description:**

C Corrosive

Information pertaining to particular dangers for man and environment

R 34 Causes burns.

R 36 Irritating to eyes.

R 52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment

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

HEALTH	2
FIRE	1
REACTIVITY	1

Health (acute effects) = 2

Flammability = 1

Reactivity = 1

4 First aid measures**General information**

Immediately remove any clothing soiled by the product.

After inhalation

Supply fresh air. If required, provide artificial respiration. Keep patient warm.

Seek immediate medical advice.

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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 Seek immediate medical advice.

5 Fire fighting measures**Suitable extinguishing agents**

CO₂, sand, extinguishing powder. Do not use water.

For safety reasons unsuitable extinguishing agents Water

Special hazards caused by the material, its products of combustion or resulting gases:

In case of fire, the following can be released:

Carbon monoxide and carbon dioxide

Nitrogen oxides (NO_x)

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:

Use neutralizing agent.

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.

Information about protection against explosions and fires:

Keep ignition sources away.

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.

Further information about storage conditions:

This product is hygroscopic.

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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.

Avoid contact with the eyes and skin.

Breathing equipment:

Use suitable respirator when high concentrations are present.

Protection of hands: Impervious gloves

Eye protection:

Tightly sealed goggles

Full face protection

Body protection: Protective work clothing.

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

Form:	Waxy solid
Color:	White
Odor:	Not determined

Change in condition

Melting point/Melting range:	48-52°C (118-126°F)
Boiling point/Boiling range:	189-191°C (372-376°F) (23mm Hg)
Sublimation temperature / start:	Not determined

Flash point:	113°C (235°F)
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Ignition temperature:	Not determined
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Decomposition temperature:	Not determined
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Danger of explosion:	Product does not present an explosion hazard.
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Explosion limits:

Lower:	Not determined
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Upper:	Not determined
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Vapor pressure:	Not determined
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Density at 20°C (68°F):	1 g/cm ³
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**Solubility in / Miscibility with
Water:**

Soluble

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

Oxidizing agents

Dangerous reactions No dangerous reactions known**Dangerous products of decomposition:**

Carbon monoxide and carbon dioxide

Nitrogen oxides

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

Oral	LD50	1580 mg/kg (gpg)
		2520 mg/kg (mus)
		4730 mg/kg (rat)
		11 gm/kg (rbt)
Dermal	LD50	>1000 mg/kg (mam)
	LDLo	10 mL/kg (rbt)
Irritation of eyes	severe	5 mg (rbt)

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:**

Triisopropanolamine is severely irritating to the eyes in addition to being corrosive. Ingestion or skin absorption may lead to somnolence, body temperature decrease, hypermotility, diarrhea, muscle contraction, and changes to the gastro-intestinal system, including the kidneys and bladder.

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.

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Additional toxicological information:

Swallowing will lead to a strong corrosive effect on mouth and throat and to the danger of perforation of esophagus and stomach.

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:**Ecotoxicological effects:**

Remark: Harmful to fish

General notes:

Do not allow material to be released to the environment without proper governmental permits.

Harmful to aquatic organisms

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**DOT regulations:**

Hazard class:	8
Identification number:	UN3259
Packing group:	III
Proper shipping name (technical name):	AMINES, SOLID, CORROSIVE, N.O.S. (Triisopropanolamine)
Label	8

Land transport ADR/RID (cross-border)

ADR/RID class:	8 (C8) Corrosive substances
Danger code (Kemler):	80
UN-Number:	3259
Packaging group:	III

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Description of goods: 3259 AMINES, SOLID, CORROSIVE, N.O.S.
(Triisopropanolamine)

Maritime transport IMDG:

IMDG Class: 8
UN Number: 3259
Label 8
Packaging group: III
Proper shipping name: AMINES, SOLID, CORROSIVE, N.O.S.
(Triisopropanolamine)

Air transport ICAO-TI and IATA-DGR:

ICAO/IATA Class: 8
UN/ID Number: 3259
Label 8
Packaging group: III
Proper shipping name: AMINES, SOLID, CORROSIVE, N.O.S.
(Triisopropanolamine)

15 Regulations**Product related hazard informations:****Hazard symbols:**

C Corrosive

Risk phrases:

34 Causes burns.
 36 Irritating to eyes.
 52/53 Harmful to aquatic organisms, may cause long-term adverse effects
in the aquatic environment

Safety phrases:

26 In case of contact with eyes, rinse 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.
 61 Avoid release to the environment. Refer to special instructions/
Safety data sheets

National regulations

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

Information about limitation of use:

For use only by technically qualified individuals.

USA

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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

USA