

Safety Data Sheet

1-Methylimidazole

Revision date : 2012/06/07

Version: 3.0

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(30037075/SDS_GEN_CA/EN)

1. Product and Company Identification

Company

BASF Canada Inc.
100 Milverton Drive
Mississauga, ON L5R 4H1, CANADA

24 Hour Emergency Response Information

CANUTEC (reverse charges): (613) 996-6666
BASF HOTLINE: (800) 454-COPE (2673)

Molecular formula: C(4)H(6)N(2)
Synonyms: 1-Methylimidazole

2. Hazards Identification

Emergency overview

COMBUSTIBLE LIQUID.
Corrosive to the skin, eyes and respiratory system.
HARMFUL IN CONTACT WITH SKIN.

State of matter: liquid
Colour: colourless to yellow
Odour: amine-like

Potential health effects**Acute toxicity:**

Of moderate toxicity after single ingestion. The inhalation of a highly enriched/saturated vapor-air-mixture represents an unlikely acute hazard. Of pronounced toxicity after short-term skin contact.

Irritation / corrosion:

Corrosive! Damages skin and eyes. May cause severe damage to the eyes.

Assessment other acute effects:

The available information is not sufficient for evaluation.

Chronic toxicity:

Genotoxicity: The substance was not mutagenic in bacteria.

Signs and symptoms of overexposure:

The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11., Further symptoms are possible

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Potential environmental effects

Aquatic toxicity:

There is a high probability that the product is not acutely harmful to aquatic organisms. The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations.

Terrestrial toxicity:

Study scientifically not justified.

3. Composition / Information on Ingredients

<u>CAS Number</u>	<u>Content (W/W)</u>	<u>Hazardous ingredients</u>
616-47-7		1-methylimidazole

4. First-Aid Measures

General advice:

First aid personnel should pay attention to their own safety. If the patient is likely to become unconscious, place and transport in stable sideways position (recovery position). Immediately remove contaminated clothing.

If inhaled:

Keep patient calm, remove to fresh air. Assist in breathing if necessary. Consult a physician.

If on skin:

Flush with copious amounts of water for at least 15 minutes. Immediate medical attention required.

If in eyes:

In case of contact with the eyes, rinse immediately for at least 15 minutes with plenty of water. Immediate medical attention required.

If swallowed:

Rinse mouth and then drink plenty of water. Do not induce vomiting. Immediate medical attention required.

Note to physician

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote. Pulmonary odema prophylaxis. Medical monitoring for at least 24 hours.

5. Fire-Fighting Measures

Flash point:	92 °C	(DIN 51758)
Autoignition:	488 °C	(DIN EN 14522)
Lower explosion limit:	2.7 %(V)	
Upper explosion limit:	15.7 %(V)	
Self-ignition temperature:		

Based on its structural properties the product is not classified as self-igniting.

Suitable extinguishing media:

water spray, dry powder, foam, carbon dioxide

Hazards during fire-fighting:

nitrogen oxides, carbon oxides

The substances/groups of substances mentioned can be released in case of fire. Under certain conditions in case of fire other hazardous combustion products may be generated.

Protective equipment for fire-fighting:

Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

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Further information:

Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

Impact Sensitivity:

Remarks: Based on the chemical structure there is no shock-sensitivity.

6. Accidental release measures

Personal precautions:

Avoid inhalation. Avoid contact with the skin, eyes and clothing.

Environmental precautions:

Do not discharge into drains/surface waters/groundwater.

Cleanup:

For small amounts: Pick up with suitable appliance and dispose of.

For large amounts: Pick up with suitable appliance and dispose of.

7. Handling and Storage

Handling

General advice:

Ensure thorough ventilation of stores and work areas.

Protection against fire and explosion:

Prevent electrostatic charge - sources of ignition should be kept well clear - fire extinguishers should be kept handy.

Storage

General advice:

Containers should be stored tightly sealed in a dry place.

Keep at temperature not exceeding 25 °C.

Storage incompatibility:

General advice: Segregate from acids and acid forming substances.

Storage stability:

Storage temperature: < 25 °C

Storage duration: 12 Months

From the data on storage duration in this safety data sheet no agreed statement regarding the warrantee of application properties can be deduced.

8. Exposure Controls and Personal Protection

Personal protective equipment

Respiratory protection:

Wear a NIOSH-certified (or equivalent) organic vapour/particulate respirator as needed.

Hand protection:

Chemical resistant protective gloves, Suitable materials, rubber, plastic

Eye protection:

Tightly fitting safety goggles (chemical goggles) and face shield.

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Body protection:

Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical-protection suit (according to EN 14605 in case of splashes or EN ISO 13982 in case of dust).

General safety and hygiene measures:

Handle in accordance with good industrial hygiene and safety practice. Wearing of closed work clothing is required additionally to the stated personal protection equipment. Avoid contact with the skin, eyes and clothing. Avoid inhalation of vapour.

9. Physical and Chemical Properties

Form:	liquid	
Odour:	amine-like	
Odour threshold:	No data available.	
Colour:	colourless to yellow	
pH value:	11.3	(100 g/l)
Melting point:	-2 °C	
Boiling point:	198 °C	
Vapour pressure:	0.4 mbar	(20 °C)
Density:	1.03 g/cm ³	(20 °C)
Partitioning coefficient n-octanol/water (log Pow):	-0.19	(25 °C) (OECD Guideline 107)
Viscosity, dynamic:	1.89 mPa.s	(20 °C) (calculated (from kinematic viscosity))
	1.33 mPa.s	(40 °C) (calculated (from kinematic viscosity))
Viscosity, kinematic:	1.83 mm ² /s	(20 °C) (OECD 114)
	1.30 mm ² /s	(40 °C) (OECD 114)
Particle size:		The substance / product is marketed or used in a non solid or granular form.
Solubility in water:	145.8 g/l	(25 °C)
Molar mass:	82.11 g/mol	

10. Stability and Reactivity

Conditions to avoid:

See MSDS section 7 - Handling and storage.

Substances to avoid:

mineral acids

Hazardous reactions:

Exothermic reaction. Reacts with acids.

Decomposition products:

Hazardous decomposition products: No hazardous decomposition products if stored and handled as prescribed/indicated.

Thermal decomposition:

Stable up to boiling point.

11. Toxicological information

Acute toxicity

Oral:

Type of value: LD50

Species: rat

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Value: approx. 1,144 mg/kg (BASF-Test)

Inhalation:

Species: rat

Value: (BASF-Test)

Exposure time: 8 h

Inhalation-risk test (IRT): No mortality within 8 hours as shown in animal studies. The inhalation of a highly saturated vapor-air mixture represents no acute hazard.

Dermal:

Type of value: LD50

Species: rabbit

Value: > 400 - < 640 mg/kg (BASF-Test)

Irritation / corrosion

Skin:

Species: rabbit

Result: Corrosive.

Method: BASF-Test

Eye:

Species: rabbit

Result: Risk of serious damage to eyes.

Method: BASF-Test

Aspiration Hazard:

No aspiration hazard expected.

12. Ecological Information

Fish

Acute:

DIN 38412 Part 15 static

Leuciscus idus/LC50 (96 h): > 100 - < 215 mg/l

The details of the toxic effect relate to the nominal concentration.

Chronic:

Study scientifically not justified.

Aquatic invertebrates

Acute:

Directive 79/831/EEC static

Daphnia magna/EC50 (48 h): 267.9 mg/l

The details of the toxic effect relate to the nominal concentration. The product will cause changes in the pH value of the test system. The result refers to an unneutralized sample. After neutralization a reduction in harmful effect can be observed.

Chronic:

Study scientifically not justified.

Aquatic plants

Toxicity to aquatic plants:

DIN 38412 Part 9 static

green algae/EC50 (72 h): 180.7 mg/l

The details of the toxic effect relate to the nominal concentration.

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Microorganisms

Toxicity to microorganisms:

DIN 38412 Part 8 aquatic
bacterium/EC10 (17 h): 589.6 mg/l

The details of the toxic effect relate to the nominal concentration. The product will cause changes in the pH value of the test system. The result refers to an unneutralized sample. After neutralization a reduction in harmful effect can be observed.

DIN 38412 Part 8 aquatic
bacterium/EC50 (17 h): 1,050 mg/l

The details of the toxic effect relate to the nominal concentration.

Degradability / Persistence

Biological / Abiological Degradation

Test method: OECD Guideline 301 F (aerobic), activated sludge

Method of analysis: BOD of the ThOD

Degree of elimination: 0 - 10 % (28 d)

Test method: OECD Guideline 302 B (aerobic), activated sludge, industrial

Method of analysis: DOC reduction

Degree of elimination: 0 - 10 % (20 d)

Evaluation: Not readily biodegradable (by OECD criteria).

The product is biodegradable after extended adaptation.

Bioaccumulation

Because of the n-octanol/water distribution coefficient (log Pow) accumulation in organisms is not to be expected.

Environmental mobility:

Transport between environmental compartments:

calculated volatility/water - air

calculated adsorption/water - soil

KOC: 623

log KOC: 2.79

The data refer to the charged form of the substance. Under environmental conditions, the substance will almost completely be in its charged form.

13. Disposal considerations

Waste disposal of substance:

Incinerate in suitable incineration plant, observing local authority regulations.

Container disposal:

Contaminated packaging should be emptied as far as possible; then it can be passed on for recycling after being thoroughly cleaned.

14. Transport Information

Land transport

TDG

Hazard class: 8

Packing group: II

ID number: UN 2922

Hazard label: 8, 6.1

Proper shipping name: CORROSIVE LIQUID, TOXIC, N.O.S. (contains 1-METHYLIMIDAZOLE)

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Sea transport

IMDG

Hazard class: 8
Packing group: II
ID number: UN 2922
Hazard label: 8, 6.1
Marine pollutant: NO
Proper shipping name: CORROSIVE LIQUID, TOXIC, N.O.S. (contains 1-METHYLIMIDAZOLE)

Air transport

IATA/ICAO

Hazard class: 8
Packing group: II
ID number: UN 2922
Hazard label: 8, 6.1
Proper shipping name: CORROSIVE LIQUID, TOXIC, N.O.S. (contains 1-METHYLIMIDAZOLE)

15. Regulatory Information

Federal Regulations

Registration status:

Chemical DSL, CA released / listed

WHMIS classification: D1B: Materials Causing Immediate and Serious Toxic Effects - Toxic material



D2B: Materials Causing Other Toxic Effects - Toxic material



THIS PRODUCT HAS BEEN CLASSIFIED IN ACCORDANCE WITH THE HAZARD CRITERIA OF THE CPR AND THE MSDS CONTAINS ALL THE INFORMATION REQUIRED BY THE CPR.

16. Other Information

We support worldwide Responsible Care® initiatives. We value the health and safety of our employees, customers, suppliers and neighbors, and the protection of the environment. Our commitment to Responsible Care is integral to conducting our business and operating our facilities in a safe and environmentally responsible fashion, supporting our customers and suppliers in ensuring the safe and environmentally sound handling of our products, and minimizing the impact of our operations on society and the environment during production, storage, transport, use and disposal of our products.

MSDS Prepared by:

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