Material Safety Data Sheet

Version 3.1
Revision Date 01/11/2008
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1. PRODUCT AND COMPANY IDENTIFICATION

Product name	:	1-Ethylimidazole
Product Number	:	690147
Brand	:	Aldrich
Company	:	Sigma-Aldrich 3050 Spruce Street SAINT LOUIS MO 63103 USA
Telephone	:	+18003255832
Fax	:	+18003255052
Emergency Phone #	:	(314) 776-6555

2. COMPOSITION/INFORMATION ON INGREDIENTS

Formula	:	C5H8N2
Molecular Weight	:	96.13 g/mol

CAS-No.	EC-No.	Index-No.	Concentration
1-Ethyl-1H-imidazole			
7098-07-9	230-403-9	-	-

3. HAZARDS IDENTIFICATION

Emergency Overview

OSHA Hazards

Combustible Liquid

Harmful by ingestion.

Corrosive

HMIS Classification

Health Hazard: 3
Flammability: 2
Physical hazards: 0

NFPA Rating

Health Hazard: 3
Fire : 2
Reactivity Hazard: 0

Potential Health Effects

Inhalation May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract. May cause respiratory tract irritation.

Skin	May be harmful if absorbed through skin. Causes skin burns.
Eyes	May cause eye irritation. Causes eye burns.
Ingestion	Harmful if swallowed. Causes burns.

4. FIRST AID MEASURES

General advice
Consult a physician. Show this safety data sheet to the doctor in attendance.Move out of dangerous area.

If inhaled
If breathed in, move person into fresh air. If not breathing give artificial respiration Consult a physician.

In case of skin contact
Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.

In case of eye contact
Continue rinsing eyes during transport to hospital.Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed
Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIRE-FIGHTING MEASURES

Flammable properties

Flash point	91.5 °C (196.7 °F) - closed cup - ISO 2719
Ignition temperature	441 °C (826 °F)

Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special protective equipment for fire-fighters
Wear self contained breathing apparatus for fire fighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions
Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

Environmental precautions
Do not let product enter drains. Discharge into the environment must be avoided.

Methods for cleaning up
Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Handling
Avoid inhalation of vapour or mist.
Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

Storage
Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Handle and store under inert gas.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

Personal protective equipment

Respiratory protection
Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection
Handle with gloves.

Eye protection
Safety glasses

Skin and body protection
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form	liquid
Colour	colourless

Safety data

pH	11 at 100 g/l at 20 °C (68 °F)
Melting point	-27 °C (-17 °F)
Boiling point	104 °C (219 °F) at 35 hPa (26 mmHg)
Flash point	91.5 °C (196.7 °F) - closed cup - ISO 2719
Ignition temperature	441 °C (826 °F)
Lower explosion limit	2.1 %(V)
Upper explosion limit	19.6 %(V)
Vapour pressure	0.4 hPa (0.3 mmHg) at 20 °C (68 °F) 3 hPa (2 mmHg) at 50 °C (122 °F)
Density	0.995 g/cm3 at 20 °C (68 °F)
Water solubility	soluble, in all proportions
Partition coefficient: n-octanol/water	log Pow: < 0.3 at 23 °C (73 °F)
Viscosity, kinematic	2.18 mm2/s at 20 °C (68 °F)

10. STABILITY AND REACTIVITY

Storage stability
Stable under recommended storage conditions.

Materials to avoid
Acids, Strong oxidizing agents

Hazardous decomposition products
Hazardous decomposition products formed under fire conditions. - Carbon dioxide (CO2), nitrogen oxides (NOx)

11. TOXICOLOGICAL INFORMATION

Acute toxicity

LD50 Oral - rat - 855 mg/kg

Irritation and corrosion

Skin - rabbit - Severe skin irritation

Eyes - rabbit - Severe eye irritation

Sensitisation

no data available

Chronic exposure

IARC:	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
ACGIH:	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
NTP:	No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA:	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Genotoxicity in vitro - negative

Potential Health Effects

Inhalation	May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract. May cause respiratory tract irritation.
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12. ECOLOGICAL INFORMATION

Elimination information (persistence and degradability)

Biodegradability	Result: - Not readily biodegradable.

Ecotoxicity effects

Toxic effects on fish and plankton

Toxicity to daphnia and other aquatic invertebrates.	EC50 - Daphnia magna (Water flea) - 70.7 mg/l - 48 h Method: OECD Test Guideline 202

Further information on ecology

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

no data available

13. DISPOSAL CONSIDERATIONS

Product
This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging
Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)
UN-Number: 3267 Class: 8 Packing group: III
Proper shipping name: Corrosive liquid, basic, organic, n.o.s. (1-Ethyl-1H-imidazole)

IMDG
UN-Number: 3267 Class: 8 Packing group: III EMS-No: F-A, S-B
Proper shipping name: CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (1-Ethyl-1H-imidazole)
Marine pollutant: No

IATA
UN-Number: 3267 Class: 8 Packing group: III
Proper shipping name: Corrosive liquid, basic, organic n.o.s. (1-Ethyl-1H-imidazole)

15. REGULATORY INFORMATION

OSHA Hazards
Combustible Liquid, Harmful by ingestion., Corrosive

TSCA Status
Not On TSCA Inventory

	CAS-No.
1-Ethyl-1H-imidazole	7098-07-9

DSL Status
This product contains the following components that are not on the Canadian DSL nor NDSL lists.

	CAS-No.
1-Ethyl-1H-imidazole	7098-07-9

SARA 302 Components
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components
SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards
Fire Hazard, Acute Health Hazard

Massachusetts Right To Know Components
No Components Listed

Pennsylvania Right To Know Components

	CAS-No.	Revision Date
1-Ethyl-1H-imidazole	7098-07-9	

New Jersey Right To Know Components

	CAS-No.	Revision Date
1-Ethyl-1H-imidazole	7098-07-9	

California Prop. 65 Components
This product does not contain any chemicals known to State of California to cause cancer, birth, or any other reproductive defects.

16. OTHER INFORMATION

Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Co., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.