

Material Safety Data Sheet

2-Ethyl-4-methylimidazole, 85%

ACC# 09519

Section 1 - Chemical Product and Company Identification

MSDS Name: 2-Ethyl-4-methylimidazole, 85%

Catalog Numbers: AC378070000

Synonyms:

Company Identification:

Acros Organics N.V.

One Reagent Lane

Fair Lawn, NJ 07410

For information in North America, call: 800-ACROS-01

For emergencies in the US, call CHEMTREC: 800-424-9300

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
931-36-2	2-Ethyl-4-methylimidazole	83-85%	213-234-5
822-36-6	4-Methylimidazole	10-13%	212-497-3
930-62-1	2,4-Dimethylimidazole	1-4%	213-221-4
616-47-7	1-Methylimidazole	1-2%	210-484-7

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Not available. Appearance: clear orange viscous liquid.

Not available.

Target Organs: Respiratory system, eyes, skin.

Potential Health Effects

Eye: Causes eye burns.

Skin: Causes skin burns.

Ingestion: Harmful if swallowed. Causes gastrointestinal tract burns.

Inhalation: Causes chemical burns to the respiratory tract.

Chronic: Not available.

Section 4 - First Aid Measures

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.

Skin: Get medical aid immediately. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

Ingestion: Do not induce vomiting. Get medical aid immediately.

Inhalation: Get medical aid immediately. Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

Notes to Physician: Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear.

Extinguishing Media: Use foam, dry chemical, or carbon dioxide.

Flash Point: 155 deg C (311.00 deg F)

Autoignition Temperature: 475 deg C (887.00 deg F)

Explosion Limits, Lower: 1.5 Vol %

Upper: 13 Vol %

NFPA Rating: Not published.

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Vacuum or sweep up material and place into a suitable disposal container.

Section 7 - Handling and Storage

Handling: Do not breathe dust, vapor, mist, or gas. Do not get in eyes, on skin, or on clothing. Use only in a chemical fume hood.
Storage: Store in a cool, dry place. Store in a tightly closed container. Corrosives area.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
2-Ethyl-4-methylimidazole	none listed	none listed	none listed
4-Methylimidazole	none listed	none listed	none listed
2,4-Dimethylimidazole	none listed	none listed	none listed
1-Methylimidazole	none listed	none listed	none listed

OSHA Vacated PELs: 2-Ethyl-4-methylimidazole: No OSHA Vacated PELs are listed for this chemical. 4-Methylimidazole: No OSHA Vacated PELs are listed for this chemical. 2,4-Dimethylimidazole: No OSHA Vacated PELs are listed for this chemical. 1-Methylimidazole: No OSHA Vacated PELs are listed for this chemical.

Personal Protective Equipment

Eyes: Not available.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

Physical State: Viscous liquid

Appearance: clear orange

Odor: Not available.

pH: 10.7 (10% aq. solution)

Vapor Pressure: 1mbar @100 deg C

Vapor Density: Not available.

Evaporation Rate: Not available.

Viscosity: Not available.

Boiling Point: 270 - 276 deg C @760mmHg

Freezing/Melting Point: 36 - 42 deg C

Decomposition Temperature: > 350 deg C

Solubility: 180 g/l (20°C)

Specific Gravity/Density: 1.0173

Molecular Formula: C₆H₁₀N₂

Molecular Weight: 110.16

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.

Conditions to Avoid: Incompatible materials, moisture.

Incompatibilities with Other Materials: Strong oxidizing agents, acids.

Hazardous Decomposition Products: Carbon monoxide, carbon dioxide.

Hazardous Polymerization: Has not been reported.

Section 11 - Toxicological Information

RTECS#:

CAS# 931-36-2: NI6147500

CAS# 822-36-6: NI7350000

CAS# 930-62-1: NI4839712

CAS# 616-47-7: NI7000000

LD50/LC50:

Not available.

CAS# 822-36-6:

Oral, mouse: LD50 = 370 mg/kg;

Oral, rat: LD50 = 751 mg/kg;

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CAS# 930-62-1:

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CAS# 616-47-7:

Oral, mouse: LD50 = 1400 mg/kg;

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Carcinogenicity:

CAS# 931-36-2: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

CAS# 822-36-6: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

CAS# 930-62-1: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

CAS# 616-47-7: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

Epidemiology: No data available.**Teratogenicity:** No data available.**Reproductive Effects:** No data available.**Mutagenicity:** No data available.**Neurotoxicity:** No data available.**Other Studies:****Section 12 - Ecological Information****Ecotoxicity:** Fish: *Leuciscus idus*: LC50 = 115.7 mg/L; 96h; .*Daphnia*: *Daphnia*: LC50 = 115.7 mg/L; 48h; . No data available.**Environmental:** No information available.**Physical:** No information available.**Other:** Biodegradable.**Section 13 - Disposal Considerations**

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P-Series: None listed.**RCRA U-Series:** None listed.**Section 14 - Transport Information**

	US DOT	Canada TDG
Shipping Name:	Not regulated as a hazardous material	No information available.
Hazard Class:		
UN Number:		
Packing Group:		

Section 15 - Regulatory Information**US FEDERAL****TSCA**

CAS# 931-36-2 is listed on the TSCA inventory.

CAS# 822-36-6 is listed on the TSCA inventory.

CAS# 930-62-1 is not listed on the TSCA inventory. It is for research and development use only.

CAS# 616-47-7 is listed on the TSCA inventory.

Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

Section 12b

None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

CERCLA Hazardous Substances and corresponding RQs

None of the chemicals in this material have an RQ.

SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

Section 313 No chemicals are reportable under Section 313.**Clean Air Act:**

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depleters.

This material does not contain any Class 2 Ozone depleters.

Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

STATE

CAS# 931-36-2 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

CAS# 822-36-6 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

CAS# 930-62-1 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

CAS# 616-47-7 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

California Prop 65

California No Significant Risk Level: None of the chemicals in this product are listed.

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols:

C

Risk Phrases:

R 22 Harmful if swallowed.

R 34 Causes burns.

Safety Phrases:

S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

WGK (Water Danger/Protection)

CAS# 931-36-2: 1

CAS# 822-36-6: 2

CAS# 930-62-1: No information available.

CAS# 616-47-7: 2

Canada - DSL/NDSL

CAS# 931-36-2 is listed on Canada's DSL List.

CAS# 616-47-7 is listed on Canada's DSL List.

CAS# 822-36-6 is listed on Canada's NDSL List.

Canada - WHMIS

WHMIS: Not available.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

Canadian Ingredient Disclosure List

Section 16 - Additional Information

MSDS Creation Date: 9/20/2004

Revision #0 Date: Original.

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Fisher be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Fisher has been advised of the possibility of such damages.