Material Safety Data Sheet
Furfurylamine, 99+\%

MSDS\# 05097
Section 1 - Chemical Product and Company Identification
MSDS Name: Furfurylamine, $99+\%$
Catalog Numbers: AC119800000, AC119800010, AC119800050, AC119802500, CC02013CB, CC02013DA
Synonyms: 2-Furanmethylamine; (2-Furylmethyl) amine; Methylamine, 1-(2-furyl)-
Acros Organics BVBA
Company Identification:

Company Identification: (USA)

For information in the US, call:
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2440 Geel, Belgium
Acros Organics
One Reagent Lane
Fair Lawn, NJ 07410
800-ACROS-01
For information in Europe, call:
+32 14575211
Emergency Number, Europe:
+32 14575299
Emergency Number US:
201-796-7100
CHEMTREC Phone Number, US:
800-424-9300
CHEMTREC Phone Number, Europe:
703-527-3887
Section 2 - Composition, Information on Ingredients


617-89-0
Furfurylamine
99
210-536-9

XI F


10 36/37/38
Section 3 - Hazards Identification

## EMERGENCY OVERVIEW

Warning! Flammable liquid and vapor. The toxicological properties of this material have not been fully investigated. Causes eye, skin, and respiratory tract irritation. Target Organs: Respiratory system, eyes, skin.
Potential Health Effects
Eye: Vapors cause eye irritation.
Skin: Causes skin irritation.
Ingestion: May cause irritation of the digestive tract.
Inhalation: Causes respiratory tract irritation. Inhalation of vapors causes irritation of the mucous membranes.
Chronic: No information found.
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.

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

Ingestion:

Inhalation: Do not induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately.

Notes to
Physician:
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.

General Information:

Extinguishing Media:

## Section 5 - Fire Fighting Measures

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Vapors can travel to a source of ignition and flash back. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Flammable liquid and vapor. Vapors may be heavier than air. They can spread along the ground and collect in low or confined areas.

Autoignition<br>Temperature:<br>$350 \operatorname{deg} \mathrm{C}(662.00 \mathrm{deg} \mathrm{F})$<br>Flash Point: 37 deg C ( 98.60 deg F)<br>Explosion<br>Limits: Lower:<br>Explosion<br>Not available<br>Limits: Upper:<br>Not available<br>NFPA Rating: 2 - health, 3 - flammability, 0 - instability

Section 6 - Accidental Release Measures
General Information:

Use proper personal protective equipment as indicated in Section 8.
Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Wash area Spills/Leaks: with soap and water. Clean up spills immediately, observing precautions in the Protective Equipment section. Remove all sources of ignition. Use a spark-proof tool. Provide ventilation.

## Section 7 - Handling and Storage

Wash thoroughly after handling. Use spark-proof tools and explosion proof equipment. Avoid contact with eyes, skin, and clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep away from heat, sparks and flame. Avoid ingestion and inhalation. Use only in a chemical fume hood. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames.

Storage: Keep away from sources of ignition. Keep container closed when not in use. Store in a cool, dry, well-ventilated area away from incompatible substances. Flammables-area.

Section 8 - Exposure Controls, Personal Protection


OSHA Vacated PELs: Furfurylamine: None listed
Engineering Controls:
Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use only under a chemical fume hood.
Exposure Limits
Personal Protective Equipment
Eyes:
Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.
Skin: Wear appropriate protective gloves to prevent skin exposure.
Clothing: Wear appropriate protective clothing to prevent skin exposure.

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a
Respirators: 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<br>Physical State: Liquid Color: colorless to straw colored Odor: None reported.<br>pH : Not available<br>Vapor Pressure: 4 mbar @ 20 C<br>Vapor Density: 3.35<br>Evaporation Rate: Not available<br>Viscosity: Not available<br>Boiling Point: 146 deg C @ $760.00 \mathrm{~mm} \mathrm{Hg}\left(294.80^{\circ} \mathrm{F}\right)$<br>Freezing/Melting Point: $-70 \operatorname{deg} \mathrm{C}\left(-94.00^{\circ} \mathrm{F}\right)$<br>Decomposition Temperature: Not available<br>Solubility in water: Miscible<br>Specific Gravity/Density: 1.0502 @ 25C<br>Molecular Formula: C5H7NO<br>Molecular Weight: 97.12<br>Section 10 - Stability and Reactivity<br>Absorbs carbon dioxide from the air. Incompatible materials.<br>Strong oxidizing agents, acids, acid chlorides, acid anhydrides.<br>Nitrogen oxides, carbon monoxide, carbon monoxide, carbon dioxide.<br>Has not been reported.<br>Section 11 - Toxicological Information<br>Carcinogenicity: Furfurylamine - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.<br>See actual entry in RTECS for complete information.

Chemical Stability:
Conditions to Avoid:
Incompatibilities with Other Materials
Hazardous Decomposition Products
Hazardous Polymerization

RTECS\#: CAS\# 617-89-0: LU9275000
LD50/LC50: RTECS: Not available.

Other:
Section 12 - Ecological Information
Not available

## Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.
Section 14 - Transport Information
US DOT
Shipping Name: FURFURYLAMINE
Hazard Class: 3
UN Number: UN2526
Packing Group: III
Canada TDG
Shipping Name: Not available
Hazard Class:
UN Number:
Packing Group:

Section 15 - Regulatory Information
European/International Regulations
European Labeling in Accordance with EC Directives
Hazard Symbols: XI F

Risk Phrases:
R 10 Flammable.
R 36/37/38 Irritating to eyes, respiratory system and skin.
Safety Phrases:
S 16 Keep away from sources of ignition - No smoking.
S 23 Do not inhale gas/fumes/vapour/spray.
S 24/25 Avoid contact with skin and eyes.
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.
WGK (Water Danger/Protection)
CAS\# 617-89-0: 1

## Canada

CAS\# 617-89-0 is listed on Canada's NDSL List
Canadian WHMIS Classifications: 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.
CAS\# 617-89-0 is not listed on Canada's Ingredient Disclosure List.

## US Federal

TSCA
CAS\# 617-89-0 is listed on the TSCA
Inventory.
Section 16 - Other Information
MSDS Creation Date: 3/04/1998
Revision \#5 Date 7/20/2009

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