

MATERIAL SAFETY DATA SHEET

CONTACT : LEONID CHEMICALS

Leonid Chemicals PVE Ltd 62/A-2 1st Stage, Yeshwanthpur Industrial Suburb Ashokpuram School Road Bangalore-560 022, Kamataka, INDIA Ph: +91-80-2337 8354, Fax: +91-80-2357 4827

Valeronitrile, 98%

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MSDS Name: Valeronitrile, 98%

Catalog Numbers:

16794-0000, 16794-1000

Synonyms:

Pentanenitrile

Company Identification (Europe): Acros Organics BVBA

Janssen Pharmaceuticalaan 3a

2440 Geel, Belgium

Company Identification (USA): Acros Organics

One Reagent Lane Fairlawn, NJ 07410

For information in North America, call: 800-ACROS-01 For information in Europe, call: 0032(0) 14575211 For emergencies in the US, call CHEMTREC: 800-424-9300 For emergencies in Europe, call: 0032(0) 14575299

SECTION 2 - COMPOSITION, INFORMATION ON INGREDIENTS

CAS# : 110-59-8

Chemical Name : Valeronitrile

% : 98%

EINECS# : 203-781-8

Haz Symbols : T

Risk Phrases : 10 25

SECTION 3 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Flammable. Toxic if swallowed.

Potential Health Effects

Eye:

May cause eye irritation.

Skin:

May cause skin irritation.

Ingestion:

Poison by ingestion.

Inhalation:

May cause respiratory tract irritation. The toxicological properties of this substance have not been fully investigated.

Chronic:

SECTION 4 - FIRST AID MEASURES

Eyes:

Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

Skin:

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

Ingestion:

Get medical aid. Wash mouth out with water.

Inhalation:

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

Notes to Physician:

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. Will burn if involved in a fire. Flammable liquid and vapor.

Extinguishing Media:

In case of fire, use water, dry chemical, chemical foam, or alcohol-resistant foam.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

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

Spills/Leaks:

Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container.

SECTION 7 - HANDLING and STORAGE

Handling:

Use spark-proof tools and explosion proof equipment. Avoid breathing dust, vapor, mist, or gas. Avoid contact with skin and eyes.

Storage

Keep away from sources of ignition. Store in a cool, dry place. Store in a tightly closed container. Flammables-area.

SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION

Engineering Controls:

Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Personal Protective Equipment

Eyes:

Wear safety glasses and chemical goggles if splashing is possible.

Skin:

Wear appropriate protective gloves and clothing to prevent skin exposure.

Clothing:

Wear appropriate protective clothing to minimize contact with skin.

Respirators:

Wear a NIOSH/MSHA or European Standard EN 149 approved full-facepiece airline respirator in the positive pressure mode with emergency escape provisions.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Clear liquid

Color: colorless Odor: Not available. pH: Not available.

Vapor Pressure: Not available. Viscosity: Not available.

Boiling Point: 139 - 141 deg C @ 760.00mm Hg

Freezing/Melting Point: -96 deg C Autoignition Temperature: Not available. Flash Point: 40 deg C (104.00 deg F) Explosion Limits, lower: Not available. Explosion Limits, upper: Not available.

Decomposition Temperature:

Solubility in water:

Specific Gravity/Density: .7950g/cm3 Molecular Formula: CH3(CH2)3CN

Molecular Weight: 83.13

SECTION 10 - STABILITY AND REACTIVITY

Chemical Stability:

Stable under normal temperatures and pressures.

Conditions to Avoid:

Incompatible materials.

Incompatibilities with Other Materials:

Strong oxidizing agents, strong reducing agents, strong acids, strong bases.

Hazardous Decomposition Products:

Nitrogen oxides, carbon monoxide, carbon dioxide, nitrogen.

Hazardous Polymerization: Has not been reported.

SECTION 11 - TOXICOLOGICAL INFORMATION

RTECS#:

CAS# 110-59-8: YV8195000

LD50/LC50:

CAS# 110-59-8: Oral, mouse: LD50 = 191 mg/kg.

Carcinogenicity:

Valeronitrile -

Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA. See actual entry in RTECS for complete information.

SECTION 12 - ECOLOGICAL INFORMATION

SECTION 13 - DISPOSAL CONSIDERATIONS

Dispose of in a manner consistent with federal, state, and local regulations.

SECTION 14 - TRANSPORT INFORMATION

IATA

Shipping Name: TOXIC LIQUID, ORGANIC, N.O.S.*

Hazard Class: 6.1 UN Number: 2810 Packing Group: III

IMO

Shipping Name: TOXIC LIQUID, ORGANIC, N.O.S.

Hazard Class: 6.1 UN Number: 2810 Packing Group: III

RID/ADR

Shipping Name: TOXIC LIQUID, ORGANIC, N.O.S.

Hazard Class: 6.1 UN Number: 2810 Packing group: III

SECTION 15 - REGULATORY INFORMATION

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: T

Risk Phrases:

R 10 Flammable.

R 25 Toxic if swallowed.

Safety Phrases:

S 16 Keep away from sources of ignition - No

smoking.

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# 110-59-8: No information available.

United Kingdom Occupational Exposure Limits

United Kingdom Maximum Exposure Limits

Canada

CAS# 110-59-8 is listed on Canada's NDSL List.

CAS# 110-59-8 is not listed on Canada's Ingredient Disclosure List.

Exposure Limits

US FEDERAL

TSCA

CAS# 110-59-8 is listed on the TSCA inventory.

SECTION 16 - ADDITIONAL INFORMATION

MSDS Creation Date: 7/16/1996 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 way shall the company 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 the company has been advised of the possibility of such damages.