

**** MATERIAL SAFETY DATA SHEET ****

Malononitrile, 99%

**** SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION ****

MSDS Name: Malononitrile, 99%

Catalog Numbers:

12527-0000, 12527-1000, 12527-5000

Synonyms:

MDN, Dicyanomethane

Company Identification (Europe): Acros Organics BVBA
 Janssen Pharmaceuticaaan 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#	Chemical Name	%	EINECS#	Haz Symbols	Risk Phrases
109-77-3	Malononitrile	99%	203-703-2		

Hazard Symbols: T N

Risk Phrases: 23/24/25

**** SECTION 3 - HAZARDS IDENTIFICATION ****

EMERGENCY OVERVIEW

Toxic by inhalation, in contact with skin and if swallowed. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Potential Health Effects

Eye:

May cause eye irritation.

Skin:

May cause skin irritation. Toxic in contact with skin.

Ingestion:

May cause irritation of the digestive tract. Poison by ingestion.

Inhalation:

May cause respiratory tract irritation. Toxic if inhaled.

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

Ingestion:

If victim is conscious and alert, give 2-4 cupfuls of milk or water. Get medical aid immediately. Wash mouth out with water.

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:

**** 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:

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:

Sweep up, then place into a suitable container for disposal.

**** 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.

**** SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION ****

Engineering Controls:

Use adequate ventilation to keep airborne concentrations low.

Personal Protective Equipment

Eyes:

Wear chemical goggles.

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:	Mass
Color:	white - yellow - brown
Odor:	Not available.
pH:	Not available.
Vapor Pressure:	1 hPa @ 50 C
Viscosity:	Not available.
Boiling Point:	220 deg C @ 760.00mm Hg
Freezing/Melting Point:	30 - 34 deg C
Autoignition Temperature:	365 deg C (689.00 deg F)
Flash Point:	112 deg C (233.60 deg F)
Explosion Limits, lower:	Not available.
Explosion Limits, upper:	Not available.
Decomposition Temperature:	
Solubility in water:	13.3 g/100 ml (20•C)
Specific Gravity/Density:	1.0490g/cm3

Molecular Formula: NCCH2CN
Molecular Weight: 66.06

**** 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# 109-77-3: 003150000

LD50/LC50:

CAS# 109-77-3: Draize test, rabbit, eye: 5 mg/24H Severe; Oral, mouse: LD50 = 19 mg/kg; Oral, rat: LD50 = 14 mg/kg; Skin, rat: LD50 = 350 mg/kg.

Carcinogenicity:

Malononitrile -

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: MALONONITRILE

Hazard Class: 6.1

UN Number: 2647

Packing Group: II

IMO

Shipping Name: MALONONITRILE

Hazard Class: 6.1

UN Number: 2647

Packing Group: II

RID/ADR

Shipping Name: MALONONITRILE

Hazard Class: 6.1

UN Number: 2647

Packing group: II

USA RQ: CAS# 109-77-3: 1000 lb final RQ; 454 kg final RQ

**** SECTION 15 - REGULATORY INFORMATION ****

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: T N

Risk Phrases:

R 23/24/25 Toxic by inhalation, in contact with skin and if swallowed.

R 50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety Phrases:

- S 23 Do not inhale gas/fumes/vapour/spray.
- S 27 Take off immediately all contaminated clothing.
- S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
- S 60 This material and its container must be disposed of as hazardous waste.
- S 61 Avoid release to the environment. Refer to special instructions/safety data sheets.

WGK (Water Danger/Protection)

CAS# 109-77-3: No information available.

United Kingdom Occupational Exposure Limits

United Kingdom Maximum Exposure Limits

Canada

CAS# 109-77-3 is listed on Canada's DSL List.

CAS# 109-77-3 is listed on Canada's Ingredient Disclosure List.

Exposure Limits

US FEDERAL

TSCA

CAS# 109-77-3 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.
