

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

N,N'-Dimethylpiperazine, 98.5%

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

MSDS Name: N,N'-Dimethylpiperazine, 98.5%

Catalog Numbers:

11665-0000, 11665-0050, 11665-1000

Synonyms:

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
106-58-1	N,N'-Dimethylpiperazine	98.5%	203-412-0		

Hazard Symbols: C

Risk Phrases: 10 22 34

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

EMERGENCY OVERVIEW

Flammable. Harmful if swallowed. Causes burns.

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. May cause burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and vomiting.

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. If victim is conscious and alert, give 2-4 cupfuls of milk or water. 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. Vapors can travel to a source of ignition and flash back. Will burn if involved in a fire. Flammable liquid and vapor.

Extinguishing Media:

Use water spray, dry chemical, carbon dioxide, or chemical 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. Remove all sources of ignition. Use a spark-proof tool. Provide ventilation.

**** SECTION 7 - HANDLING and STORAGE ****

Handling:

Use spark-proof tools and explosion proof equipment. Do not breathe dust, vapor, mist, or gas. Do not get in eyes, on skin, or on clothing. Take precautionary measures against static discharges. Use only in a chemical fume hood.

Storage:

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

**** 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 ventilation to keep airborne concentrations low.

Personal Protective Equipment

Eyes:

Wear chemical goggles.

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. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

**** SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES ****

Physical State:	Clear liquid
Color:	clear colorless to yellow
Odor:	amine-like
pH:	10 (10% aq.sol.)
Vapor Pressure:	20 mbar @ 20 deg C
Viscosity:	1.5 mPa.s@20 deg C

Boiling Point: 130-133 deg C
Freezing/Melting Point: -1 deg C
Autoignition Temperature: 180 deg C (356.00 deg F)
Flash Point: 21.5 deg C (70.70 deg F)
Explosion Limits, lower: 1.80 vol %
Explosion Limits, upper: 9.60 vol %
Decomposition Temperature:
Solubility in water: Miscible.
Specific Gravity/Density: .852 g/cm3
Molecular Formula: C6H14N2
Molecular Weight: 114.19

**** SECTION 10 - STABILITY AND REACTIVITY ****

Chemical Stability:
Not available.
Conditions to Avoid:
Incompatible materials, ignition sources.
Incompatibilities with Other Materials:
Strong oxidizing agents, acids.
Hazardous Decomposition Products:
Nitrogen oxides, carbon monoxide, carbon dioxide.
Hazardous Polymerization: Has not been reported.

**** SECTION 11 - TOXICOLOGICAL INFORMATION ****

RTECS#:
CAS# 106-58-1: TL5945000
LD50/LC50:
Not available.
Oral, rat: LD50 = 1700 mg/kg
Carcinogenicity:
N,N'-Dimethylpiperazine -
Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.
See actual entry in RTECS for complete information.

**** SECTION 12 - ECOLOGICAL INFORMATION ****

Ecotoxicity:
Daphnia: >100 mg/l; 48h; EC/LC50 Bacteria: 1380 mg/l; 16h; EC/LC50
Other
Do not empty into drains. Biodegradable.

**** SECTION 13 - DISPOSAL CONSIDERATIONS ****

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

**** SECTION 14 - TRANSPORT INFORMATION ****

IATA
Shipping Name: AMINES, FLAMMABLE, CORROSIVE, N.O.S.*
Hazard Class: 3
UN Number: 2733
Packing Group: II
IMO
Shipping Name: AMINES, FLAMMABLE, CORROSIVE, N.O.S.
Hazard Class: 3
UN Number: 2733
Packing Group: II
RID/ADR
Shipping Name: AMINES, FLAMMABLE, CORROSIVE, N.O.S.
Hazard Class: 3
UN Number: 2733
Packing group: II

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

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: C

Risk Phrases:

- R 10 Flammable.
- R 22 Harmful if swallowed.
- R 34 Causes burns.

Safety Phrases:

- S 16 Keep away from sources of ignition - No smoking.
- 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# 106-58-1: 1

United Kingdom Occupational Exposure Limits

United Kingdom Maximum Exposure Limits

Canada

CAS# 106-58-1 is listed on Canada's DSL List.

CAS# 106-58-1 is not listed on Canada's Ingredient Disclosure List.

Exposure Limits

US FEDERAL

TSCA

CAS# 106-58-1 is listed on the TSCA inventory.

**** SECTION 16 - ADDITIONAL INFORMATION ****

MSDS Creation Date: 3/04/1999 Revision #1 Date: 2/23/2000

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.
