

# MATERIAL SAFETY DATA SHEET

## Section 1 - Chemical Product and Company Identification

**MSDS Name:** DMSO/NMP (Dimethylsulfoxide/1-Methyl-2-pyrrolidone)  
**Catalog Numbers:** AC376780000, AC376784500  
**Synonyms:**  
**Company Identification:** Acros Organics BVBA  
Janssen Pharmaceuticaalaa 3a  
2440 Geel, Belgium  
**Company Identification: (USA)** Acros Organics  
One Reagent Lane  
Fair Lawn, NJ 07410  
**For information in the US, call:** 800-ACROS-01  
**For information in Europe, call:** +32 14 57 52 11  
**Emergency Number, Europe:** +32 14 57 52 99  
**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

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**CAS#:** 67-68-5  
**Chemical Name:** Dimethylsulfoxide  
**%:** 81%  
**EINECS#:** 200-664-3  
**Hazard Symbols:** XI  
**Risk Phrases:**  
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**CAS#:** 872-50-4  
**Chemical Name:** 1-Methyl-2-pyrrolidone  
**%:** 19%  
**EINECS#:** 212-828-1  
**Hazard Symbols:** XI  
**Risk Phrases:**  
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Text for R-phrases: see Section 16

**Hazard Symbols:** XI



**Risk Phrases:** 36/37/38

## Section 3 - Hazards Identification

### EMERGENCY OVERVIEW

Hygroscopic (absorbs moisture from the air). Light sensitive. Target Organs: Respiratory system, eyes, skin.

### Potential Health Effects

**Eye:** Causes eye irritation.  
**Skin:** Causes skin irritation. May be harmful if absorbed through the skin.  
**Ingestion:** May cause irritation of the digestive tract. May be harmful if swallowed.  
**Inhalation:** Causes respiratory tract irritation. May be harmful if inhaled.  
**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:** 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. Combustible liquid.  
**Extinguishing Media:** Use water spray, dry chemical, carbon dioxide, or chemical foam.  
**Autoignition:** Not available  
**Temperature:**  
**Flash Point:** > 85 deg C (> 185.00 deg F)  
**Explosion Limits:** Not available  
**Lower:**  
**Explosion Limits:** Not available  
**Upper:**  
**NFPA Rating:** 2 - health, 2 - flammability, 0 - instability

### 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:** 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.

### 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.

Chemical Name	ACGIH	NIOSH	OSHA -
Final PELs			
Dimethylsulfoxide	none listed	none listed	none

listed			
1-Methyl-2-pyrrolidone	none listed	none listed	none listed

OSHA Vacated PELs: Dimethylsulfoxide: None listed 1-Methyl-2-pyrrolidone: None listed

**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:** Liquid
- Color:** colorless
- Odor:** garlic-like odor
- pH:** Not available
- Vapor Pressure:** Not available
- Vapor Density:** Not available
- Evaporation Rate:** Not available
- Viscosity:** Not available
- Boiling Point:** Not available
- Freezing/Melting Point:** Not available
- Decomposition Temperature:** Not available
- Solubility in water:** Soluble
- Specific Gravity/Density:**
- Molecular Formula:**
- Molecular Weight:**

**Section 10 - Stability and Reactivity**

- Chemical Stability:** Not available
- Conditions to Avoid:** Incompatible materials, light, exposure to moist air or water.
- Incompatibilities with Other Materials:** Not available
- Hazardous Decomposition Products:** Nitrogen oxides, carbon monoxide, carbon dioxide, sulfur oxides (SOx), including sulfur oxide and sulfur dioxide.
- Hazardous Polymerization:** Has not been reported.

**Section 11 - Toxicological Information**

- RTECS#:** CAS# 67-68-5: PV6210000  
CAS# 872-50-4: UY5790000
- LD50/LC50:** RTECS:  
**CAS# 67-68-5:** Draize test, rabbit, eye: 100 mg;  
Draize test, rabbit, eye: 500 mg/24H Mild;  
Draize test, rabbit, skin: 500 mg/24H Mild;  
Oral, mouse: LD50 = 7920 mg/kg;  
Oral, rat: LD50 = 14500 mg/kg;  
Skin, rat: LD50 = 40 gm/kg;

RTECS:

**CAS# 872-50-4:** Draize test, rabbit, eye: 100 mg Moderate;

Oral, mouse: LD50 = 5130 mg/kg;

Oral, rat: LD50 = 3914 mg/kg;

Skin, rabbit: LD50 = 8 gm/kg;

**Carcinogenicity:** Dimethylsulfoxide - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.  
1-Methyl-2-pyrrolidone - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.

Epidemiology: Not available

Teratogenicity: Not available

Reproductive: Not available

Neurotoxicity: Not available

Mutagenicity: Not available

Other: The toxicological properties have not been fully investigated. See actual entry in RTECS for complete information.

### Section 12 - Ecological Information

Not available

### 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

Shipping Name: Not regulated as a hazardous material

Hazard Class:

UN Number:

Packing Group:

Canada TDG

Shipping Name: Not available

Hazard Class:

UN Number:

Packing Group:

### Section 15 - Regulatory Information

#### US Federal

TSCA

CAS# 67-68-5 is listed on the TSCA Inventory.

CAS# 872-50-4 is listed on the TSCA Inventory.

#### Health & Safety Reporting List

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

#### Chemical Test Rules Section 12b

CAS# 872-50-4: Test for Health Effects

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.

**SARA Codes Section 313** CAS # 67-68-5: flammable. CAS # 872-50-4: acute, chronic, flammable. This material contains 1-Methyl-2-pyrrolidone (CAS# 872-50-4, 19%), which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 372.

**Clean Air Act:** This material does not contain any hazardous air pollutants. This material does not contain any Class 1 Ozone depletors. This material does not contain any Class 2 Ozone depletors.

**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: STATE** Dimethylsulfoxide is not present on state lists from CA, PA, MN, MA, FL, or NJ. 1-Methyl-2-pyrrolidone can be found on the following state right to know lists: Pennsylvania, Minnesota, Massachusetts.

**California Prop 65** WARNING: This product contains 1-Methyl-2-pyrrolidone, a chemical known to the state of California to cause birth defects or other reproductive harm.

**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: XI  
Risk Phrases:  
R 36/37/38 Irritating to eyes, respiratory system and skin.  
  
Safety Phrases:  
S 41 In case of fire and/or explosion do not breathe fumes.

WGK (Water Danger/Protection)  
CAS# 67-68-5: 1  
CAS# 872-50-4: 1

Canada  
CAS# 67-68-5 is listed on Canada's DSL List  
CAS# 872-50-4 is listed on Canada's DSL 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# 67-68-5 is listed on Canada's Ingredient Disclosure List  
CAS# 872-50-4 is not listed on Canada's Ingredient Disclosure List.

#### Section 16 - Other 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 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.