## Material Safety Data Sheet

#### DL-Mandelic acid

#### ACC# 59911

### Section 1 - Chemical Product and Company Identification

MSDS Name: DL-Mandelic acid

Catalog Numbers: AC220860000, AC220860500, AC220862500

Synonyms: alpha-Hydroxyphenylacetic acid

Company Identification:
Acros Organics N.V.
One Reagent Lane

One Reagent Lane Fair Lawn, NJ 07410

For information in North America, call: 800-ACROS-01 For emergencies in the US, call CHEMTREC: 800-424-9300

### Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
90-64-2	DL-Mandelic acid	99+%	202-007-6

### Section 3 - Hazards Identification

#### **EMERGENCY OVERVIEW**

Appearance: white crystalline powder.

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:** Harmful if swallowed. May cause irritation of the digestive tract. **Inhalation:** Causes respiratory tract irritation. May be harmful if inhaled.

Chronic: Not available.

#### 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.

Extinguishing Media: Use water spray, dry chemical, carbon dioxide, or chemical foam.

Flash Point: Not available.

**Autoignition Temperature:** Not available. **Explosion Limits, Lower:**Not available.

**Upper:** Not available.

NFPA Rating: Not published.

#### Section 6 - Accidental Release Measures

**General Information:** Use proper personal protective equipment as indicated in Section 8. **Spills/Leaks:** Vacuum or sweep up material and place into a suitable disposal container.

### Section 7 - Handling and Storage

Handling: Avoid breathing dust, mist, or vapor. Avoid contact with skin and eyes.

**Storage:** Store in a cool, dry place. Do not store in direct sunlight. 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.

#### **Exposure Limits**

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
DL-Mandelic acid	none listed	none listed	none listed

OSHA Vacated PELs: DL-Mandelic acid: No OSHA Vacated PELs are listed for this chemical.

Personal Protective Equipment Eyes: Wear chemical splash 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. 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: Crystalline powder

Appearance: white Odor: faint sweet odor pH: Not available.

Vapor Pressure: <0.1mbar @20 deg C

**Vapor Density:** Not available. **Evaporation Rate:** Not available.

Viscosity: Not available.

Boiling Point: Not available.

Freezing/Melting Point:118 - 122 deg C Decomposition Temperature:Not available.

Solubility: 150 g/l water (20癈)

Specific Gravity/Density: Not available.

Molecular Formula: C8H8O3 Molecular Weight: 152.15

### Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures. May discolor on

exposure to light.

Conditions to Avoid: Incompatible materials, light.

**Incompatibilities with Other Materials:** Strong reducing agents, strong bases, oxidizing materials, acids, alcohols, amines, acid anhydrides, halogenated organics (e.g. dibromoethane, hexachlorobenzene, methyl chloride, trichloroethylene).

Hazardous Decomposition Products: Carbon monoxide, carbon dioxide.

Hazardous Polymerization: Will not occur.

### Section 11 - Toxicological Information

RTECS#:

CAS# 90-64-2: OO6300000

LD50/LC50: Not available.

Carcinogenicity:

CAS# 90-64-2: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

**Epidemiology:** No data available. **Teratogenicity:** No data available.

Reproductive Effects: No data available.

Mutagenicity: No data available. **Neurotoxicity:** No data available.

Other Studies:

### Section 12 - Ecological Information

**Ecotoxicity:** No data available. Log Pow: 0.2 **Environmental:** No information available.

**Physical:** No information available. **Other:** No information 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	Canada TDG
Shipping Name:	Not regulated.	Not regulated.
Hazard Class:		
UN Number:		
Packing Group:		

### Section 15 - Regulatory Information

#### **US FEDERAL**

#### **TSCA**

CAS# 90-64-2 is listed on the TSCA inventory.

#### **Health & Safety Reporting List**

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

#### **Chemical Test Rules**

None of the chemicals in this product are under a Chemical Test Rule.

#### Section 12b

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.

**Section 313** No chemicals are reportable under Section 313.

#### 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:

None of the chemicals in this product are considered highly hazardous by OSHA.

#### **STATE**

CAS# 90-64-2 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

#### California Prop 65

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:**

ΧN

### Risk Phrases:

R 22 Harmful if swallowed.

R 36/37/38 Irritating to eyes, respiratory system and skin.

#### **Safety Phrases:**

S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 37/39 Wear suitable gloves and eye/face protection.

#### WGK (Water Danger/Protection)

CAS# 90-64-2: No information available.

Canada - DSL/NDSL

CAS# 90-64-2 is listed on Canada's DSL List.

Canada - WHMIS

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.

**Canadian Ingredient Disclosure List** 

#### Section 16 - Additional Information

**MSDS Creation Date**: 9/02/1997 **Revision #3 Date**: 3/25/2008

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