

Material Safety Sheet Date

Section 1- Product Information

Product Name Mandelic acid
CAS NO. 90-64-2

Section 2- Composition/Information on Ingredient

Substance

Molecular Weight: 152.15 g/mol

CAS No.: 90-64-2

EC-No.: 202-007-6

Composition	Classification	Assay
Mandelic acid	Skin Corr. 1B; Eye Dam. 1; H314, H318	≤ 100%

For the full text of the H-Statements mentioned in this Section, see Section 16.

Section 3 - Hazards Identification

Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Skin corrosion (Sub-category 1B), H314

Serious eye damage (Category 1), H318

For the full text of the H-Statements mentioned in this Section, see Section 16.

Label elements

Labelling according Regulation (EC) No 1272/2008

Hazard statement(s)

H314 Causes severe skin burns and eye damage

Precautionary statement(s)

P260 Do not breathe dust or mist.

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.

P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.

Supplemental Hazard Statements

None

Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Section 4- First Aid Measures

Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of any immediate medical attention and special treatment needed

No data available

Section 5- Fire Fighting Measures

Extinguishing Media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special hazards arising from the substance or mixture

Carbon oxides

Advice to Firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

Further information

No data available

Section 6 - Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

For personal protection see section 8.

Environmental precautions

Do not let product enter drains.

Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

Reference to other sections

Reference to other sections for disposal see section 13.

Section 7 - Handling and Storage

Precautions for safe handling

Avoid formation of dust and aerosols.

Provide appropriate exhaust ventilation at places where dust is formed.

For precautions see section 2.2.

Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place. Store in cool place. Light sensitive.

Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

Section 8 - Exposure Controls / Personal Protection

Control parameters

Components with workplace control parameters

Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday

Personal Protective Equipment

Eye/face protection

Use equipment that has been tested and approved by official standards such as NIOSH (USA) or EN166(EU) for eye protection

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body protection

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Do not let product enter drains.

Section 9- Physical and Chemical Properties

Information on basic physical and chemical properties

Appearance	Form: solid Colour: white
Odor	Weekly aromatic
Odour Threshold	No data available
pH	2.3 at 10 g/l
Melting point/freezing point	Melting point/range: 119 - 121 ° C - lit.
Initial boiling point and boiling range	255 - 340 ° C at ca.1.013 hPa - OECD Test Guideline 103 - Decomposition
Flash Point	No data available
Evaporation rate	No data available
Flammability (solid, gas)	The product is not flammable. - Flammability (solids) No data available
Upper/lower flammability or explosive limits	No data available
Vapor Pressure	< 0,1 h Pa at 25 ° C - OECD Test Guideline 104
Vapor Density	No data available
Relative density	1.31 g/cm ³ at 20 ° C - OECD Test Guideline 109
Water solubility	139 g/l at 20 ° C - OECD Test Guideline 105
N-octanol/water partition coefficient	log Pow: 0,5 at 23 ° C - OECD Test Guideline 107 - Bioaccumulation is not expected.
Auto-ignition temperature	does not ignite
Decomposition temperature	No data available
Viscosity	No data available
Explosive properties	No data available
Oxidizing properties	No data available

Section 10- Stability and Reactivity

Stability	The product is stable.
Instability Temperature:	Not available.
Conditions of Instability	Excess heat, incompatible materials
Incompatibility with various substances	Not available
Corrosivity	Not available
Special Remarks on Reactivity	No information available at this time.
Special Remarks on Corrosivity:	Not available
Polymerization	Will not occur

Section 11 - Toxicological Information

Routes of Entry	Inhalation. Ingestion
Toxicity to Animals	
LD50: Not available. LC50: Not available	
Chronic Effects on Humans	Not available
Other Toxic Effects on Humans	Slightly hazardous in case of skin contact (irritant), of ingestion, of inhalation.
Special Remarks on Toxicity to Animals	Not available
Special Remarks on Chronic Effects on Humans	Not available
Special Remarks on other Toxic Effects on Humans	Not available

Acute Potential Health Effects: Skin: May cause skin irritation. Eyes: Dust may cause eye irritation. Ingestion: Swallowing this material during normal handling is not likely to be harmful. Inhalation: This material may produce dust. May cause respiratory tract irritation. Breathing small amounts of this material during normal handling is not likely to be harmful. Breathing large amounts may be harmful. The toxicological properties of this substance have not been fully investigated.

Section 12 - Ecological Information

Ecotoxicity	Not available
BOD5 and COD	Not available
Products of Biodegradation	Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.
Toxicity of the Products of Biodegradation	Not available.
Special Remarks on the Products of Biodegradation	Not available.

Section 13 - Disposal Considerations

Waste Disposal	Waste must be disposed of in accordance with federal, state and local environmental control regulations
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Section 14 - Transport Information

DOT Classification	Not a DOT controlled material (United States).
Identification:	Not applicable.
Special Provisions for Transport	Not applicable.

Section 15 – Regulatory Information

Federal and State Regulations:	No products were found.
Other Regulations	Not available.
Other Classifications	Not available.

Section 16 - Other Information

References: Not available.

Other Special Considerations: Not available.