

# Material Safety Data Sheet

## Pyruvic acid

ACC# 53170

### Section 1 - Chemical Product and Company Identification

**MSDS Name:** Pyruvic acid

**Catalog Numbers:** AC132140000, AC132140250, AC132141000, AC132145000

**Synonyms:** 2-Oxopropanoic acid; alpha-Ketopropionic acid; 2-Oxopropionic acid; Acetylformic acid; Pyroracemic acid.

**Company Identification:**

Acros Organics N.V.

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
127-17-3	Pyruvic acid	98	204-824-3

### Section 3 - Hazards Identification

#### EMERGENCY OVERVIEW

Appearance: clear amber liquid. Flash Point: 82 deg C.

**Danger!** Causes eye and skin burns. **Combustible liquid and vapor.** May cause severe respiratory and digestive tract irritation with possible burns. Light sensitive. Air sensitive. Keep refrigerated. (Store below 4°C/39°F.)

**Target Organs:** Eyes, skin, mucous membranes.

#### Potential Health Effects

**Eye:** Causes eye burns.

**Skin:** Causes skin burns.

**Ingestion:** May cause severe gastrointestinal tract irritation with nausea, vomiting and possible burns. Pyruvic acid is an intermediate in sugar metabolism.

**Inhalation:** May cause severe irritation of the upper respiratory tract with pain, burns, and inflammation.

**Chronic:** No information found.

### Section 4 - First Aid Measures

**Eyes:** In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical aid immediately.

**Skin:** In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid immediately. Wash clothing before reuse.

**Ingestion:** If swallowed, do NOT induce vomiting. Get medical aid immediately. If victim is fully conscious, give a cupful of water. Never give anything by mouth to an unconscious person.

**Inhalation:** If inhaled, remove to fresh air. 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. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Fire or excessive heat may result in violent rupture of the container due to bulk polymerization. Combustible liquid and vapor.

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

**Flash Point:** 82 deg C ( 179.60 deg F)

**Autoignition Temperature:** 305 deg C ( 581.00 deg F)

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

**Upper:** Not available.

**NFPA Rating:** (estimated) Health: 3; Flammability: 2; Instability: 0

### 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. Provide ventilation.

### Section 7 - Handling and Storage

**Handling:** Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Do not get in eyes, on skin, or on clothing. Use only with adequate ventilation. Keep away from heat and flame. Do not breathe vapor or mist.  
**Storage:** Keep away from sources of ignition. Store in a tightly closed container. Keep refrigerated. (Store below 4°C/39°F.) Storage under a nitrogen blanket has been recommended. Store protected from light and air.

## 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
Pyruvic acid	none listed	none listed	none listed

**OSHA Vacated PELs:** Pyruvic 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:** Liquid

**Appearance:** clear amber

**Odor:** Resembling acetic acid

**pH:** Not available.

**Vapor Pressure:** 1.29 mm Hg @ 25 deg C

**Vapor Density:** Not available.

**Evaporation Rate:** Not available.

**Viscosity:** Not available.

**Boiling Point:** 165 deg C @ 760 mm Hg (dec)

**Freezing/Melting Point:** 11.8 deg C

**Decomposition Temperature:** 165 deg C

**Solubility:** Soluble.

**Specific Gravity/Density:** 1.25

**Molecular Formula:** C<sub>3</sub>H<sub>4</sub>O<sub>3</sub>

**Molecular Weight:** 88.06

## Section 10 - Stability and Reactivity

**Chemical Stability:** Stable under normal temperatures and pressures. Polymerizes and decomposes on standing unless pure and kept in container with airtight closure.

**Conditions to Avoid:** Light, ignition sources, excess heat, prolonged exposure to air, contamination.

**Incompatibilities with Other Materials:** Strong oxidizing agents, strong reducing agents, strong bases.

**Hazardous Decomposition Products:** Carbon monoxide, carbon dioxide.

**Hazardous Polymerization:** May occur.

## Section 11 - Toxicological Information

### RTECS#:

CAS# 127-17-3: UZ0829800

### LD50/LC50:

Not available.

Mouse LD50 Subcutaneous; Dose: 3533 mg/kg.

### Carcinogenicity:

CAS# 127-17-3: 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. Fish toxicity: Not toxic to brown trout, bluegill sunfish, yellow perch or goldfish at 5 ppm for 24 hr. Test condition: pH 7.0; dissolved oxygen 7.5 ppm; total hardness (soap method) 300 ppm; methyl orange alkalinity 310 ppm; free carbon dioxide 5 ppm and 12.8°C. [The Dictionary of Substances and their Effects, 1992]

**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
<b>Shipping Name:</b>	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S (PYRUVIC ACID)
<b>Hazard Class:</b>	8	8
<b>UN Number:</b>	UN3265	UN3265
<b>Packing Group:</b>	III	III

## Section 15 - Regulatory Information

### US FEDERAL

#### TSCA

CAS# 127-17-3 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.

#### SARA Codes

CAS # 127-17-3: immediate, fire, reactive.

**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# 127-17-3 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:

C

##### Risk Phrases:

R 34 Causes burns.

##### Safety Phrases:

S 25 Avoid contact with eyes.

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# 127-17-3: No information available.

#### Canada - DSL/NDSL

CAS# 127-17-3 is listed on Canada's DSL List.

#### Canada - WHMIS

This product has a WHMIS classification of B3, E.

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.

Section 16 - Additional Information

**MSDS Creation Date:** 9/02/1997

**Revision #3 Date:** 3/26/2004

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