



## Material Safety Data Sheet

### Isovaleric Acid

MSDS# 88351

#### Section 1 - Chemical Product and Company Identification

MSDS Name: Isovaleric Acid

Catalog AC156690000, AC156690025, AC156690100, AC156691000, AC156695000, ACE1058080,

Numbers: ACE1058114 ACE1058114

Synonyms: 3-Methylbutyric acid; Isopentanoic acid; Delphinic acid

Company Identification:

Fisher Scientific  
One Reagent Lane  
Fair Lawn, NJ 07410

For information in the US, call:

201-796-7100

Emergency Number US:

201-796-7100

CHEMTREC Phone Number, US:

800-424-9300

#### Section 2 - Composition, Information on Ingredients

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CAS#: 503-74-2  
Chemical Name: Isovaleric Acid  
%: 99-100  
EINECS#: 207-975-3  
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Hazard Symbols: T



Risk Phrases: 22 24 34

#### Section 3 - Hazards Identification

##### EMERGENCY OVERVIEW

Danger! Combustible liquid and vapor. Corrosive. Causes burns by all exposure routes. Harmful if swallowed or absorbed through the skin. Target Organs: Respiratory system, eyes, skin.

##### Potential Health Effects

Eye: Causes eye burns.

Skin: Harmful if absorbed through the skin. Causes skin burns.

Ingestion: Harmful if swallowed. Causes gastrointestinal tract burns.

Inhalation: Causes chemical burns to the respiratory tract. Vapors may cause dizziness or suffocation.

Chronic: No information found.

#### 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. Do NOT allow victim to rub eyes or keep eyes closed.

Skin: Get medical aid immediately. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Discard contaminated clothing in a manner which limits further exposure.

Ingestion: Do not induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately.

Inhalation: Get medical aid immediately. Remove from exposure and move to fresh air immediately. If breathing is difficult, give oxygen. Do NOT use mouth-to-mouth resuscitation. If breathing has ceased apply artificial

respiration using oxygen and a suitable mechanical device such as a bag and a mask.

Notes to  
Physician:

#### 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. Will burn if involved in a fire. Combustible liquid. Containers may explode when heated.

**Extinguishing Media:** In case of fire, use water, dry chemical, chemical foam, or alcohol-resistant foam. Use water spray to cool fire-exposed containers.

**Autoignition Temperature:** 440 deg C ( 824.00 deg F)

**Flash Point:** 70 deg C ( 158.00 deg F)

**Explosion Limits:** 1.60  
**Lower:**

**Explosion Limits:** 6.80  
**Upper:**

**NFPA Rating:** 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. Avoid runoff into storm sewers and ditches which lead to waterways. Clean up spills immediately, observing precautions in the Protective Equipment section. Remove all sources of ignition. Do not get water inside containers.

#### Section 7 - Handling and Storage

**Handling:** Wash thoroughly after handling. Use with adequate ventilation. Do not get in eyes, on skin, or on clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep container tightly closed. Keep away from heat, sparks and flame. Avoid ingestion and inhalation. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames.

**Storage:** Keep away from sources of ignition. Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances.

#### Section 8 - Exposure Controls, Personal Protection

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Isovaleric Acid	none listed	none listed	none listed

OSHA Vacated PELs: Isovaleric Acid: None listed

#### Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

#### Exposure Limits

#### Personal Protective Equipment

**Eyes:** Wear chemical splash goggles and face shield.

**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:** Clear liquid

Color: colorless

Odor: strong rancid-cheese

pH: 3 (30% aq. sol.)

Vapor Pressure: 1 mm Hg @34C

Vapor Density: Not available

Evaporation Rate: Not available

Viscosity: 2.4 mPa s 20 C

Boiling Point: 176 deg C ( 348.80°F)

Freezing/Melting Point: -37 deg C ( -34.60°F)

Decomposition Temperature:

Solubility in water: Soluble

Specific Gravity/Density: .9370

Molecular Formula: C5H10O2

Molecular Weight: 102.0688

#### Section 10 - Stability and Reactivity

Chemical Stability:	Stable under normal temperatures and pressures.
Conditions to Avoid:	Incompatible materials, ignition sources.
Incompatibilities with Other Materials	Oxidizing agents, reducing agents, bases.
Hazardous Decomposition Products	Carbon monoxide, carbon dioxide.
Hazardous Polymerization	Has not been reported.

#### Section 11 - Toxicological Information

RTECS#:	CAS# 503-74-2: NY1400000
	RTECS:
	<b>CAS# 503-74-2:</b> Draize test, rabbit, eye: 940 ug Mild;
LD50/LC50:	Draize test, rabbit, skin: 500 mg/24H Moderate;
	Oral, rat: LD50 = 2 mL/kg;
	Skin, rabbit: LD50 = 310 uL/kg;
	.
Carcinogenicity:	Isovaleric Acid - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
Other:	See actual entry in RTECS for complete information.

#### Section 12 - Ecological Information

Not available

#### Section 13 - Disposal Considerations

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

#### Section 14 - Transport Information

US DOT

Shipping Name: CORROSIVE LIQUIDS, TOXIC, N.O.S. (ISOVALERIC ACID)

Hazard Class: 8

UN Number: UN2922

Packing Group: II

Canada TDG

Shipping Name: CORROSIVE LIQUIDS, TOXIC, N.O.S. (ISOVALERIC ACID)

Hazard Class: 8

UN Number: UN2922

Packing Group: II

#### Section 15 - Regulatory Information

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: T

Risk Phrases:

R 22 Harmful if swallowed.

R 24 Toxic in contact with skin.

R 34 Causes burns.

Safety Phrases:

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

S 28A After contact with skin, wash immediately with plenty of water.

S 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

S 38 In case of insufficient ventilation, wear suitable respiratory equipment.

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# 503-74-2: 1

Canada

CAS# 503-74-2 is listed on Canada's DSL List

Canadian WHMIS Classifications: E, D1B

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# 503-74-2 is listed on Canada's Ingredient Disclosure List

US Federal

TSCA

CAS# 503-74-2 is listed on the TSCA  
Inventory.

Section 16 - Other Information

MSDS Creation Date: 12/12/1997

Revision #5 Date 7/20/2009

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.

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