

# **SAFETY DATA SHEET**

Creation Date 10-Nov-2010 Revision Date 28-Mar-2022 Revision Number 6

## 1. Identification

Product Name Isovaleryl chloride

Cat No.: AC169280000; AC169280250; AC169281000; AC169285000

CAS No 108-12-3

Synonyms No information available

Recommended Use Laboratory chemicals.

Uses advised against Food, drug, pesticide or biocidal product use.

#### Details of the supplier of the safety data sheet

Company

Fisher Scientific Company
One Reagent Lane
Fair Lawn, NJ 07410
Acros Organics
One Reagent Lane
Fair Lawn, NJ 07410
Fair Lawn, NJ 07410

Tel: (201) 796-7100

Emergency Telephone Number For information US call: 001-800-ACROS-01 / Europe call: +32 14 57 52 11

Emergency Number **US**:001-201-796-7100 / **Europe**: +32 14 57 52 99 **CHEMTREC** Tel. No.**US**:001-800-424-9300 / **Europe**:001-703-527-3887

## 2. Hazard(s) identification

#### Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Flammable liquids
Corrosive to metals
Category 1
Acute Inhalation Toxicity - Vapors
Skin Corrosion/Irritation
Category 1
Acute Damage/Eye Irritation
Category 1
Category 1
Category 1

#### Label Elements

#### Signal Word

Danger

#### **Hazard Statements**

Highly flammable liquid and vapor May be corrosive to metals Causes severe skin burns and eye damage

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Toxic if inhaled



#### **Precautionary Statements**

#### Prevention

Do not breathe dust/fume/gas/mist/vapors/spray

Wash face, hands and any exposed skin thoroughly after handling

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

Keep away from heat/sparks/open flames/hot surfaces. - No smoking

Keep container tightly closed

Ground/bond container and receiving equipment

Use explosion-proof electrical/ventilating/lighting equipment

Use only non-sparking tools

Take precautionary measures against static discharge

Keep only in original container

Keep cool

#### Response

Immediately call a POISON CENTER or doctor/physician

#### Inhalation

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

#### Skin

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower

Wash contaminated clothing before reuse

#### Eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

IF SWALLOWED: Rinse mouth. DO NOT induce vomiting

#### Fire

In case of fire: Use CO2, dry chemical, or foam for extinction

## Spills

Absorb spillage to prevent material damage

#### Storage

Store in a well-ventilated place. Keep container tightly closed

Store locked up

Store in corrosive resistant polypropylene container with a resistant inliner

Store in a dry place

### **Disposal**

Dispose of contents/container to an approved waste disposal plant

## Hazards not otherwise classified (HNOC)

None identified

#### Other hazards

Stench.

# 3. Composition/Information on Ingredients

Component	CAS No	Weight %
Butanoyl chloride, 3-methyl-	108-12-3	<=100

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**General Advice** Show this safety data sheet to the doctor in attendance. Immediate medical attention is

required.

**Eye Contact**Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

Immediate medical attention is required.

**Skin Contact** Wash off immediately with plenty of water for at least 15 minutes. Immediate medical

attention is required.

No information available

**Inhalation** If not breathing, give artificial respiration. Do not use mouth-to-mouth method if victim

ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Remove to fresh

air. Immediate medical attention is required.

**Ingestion** Do NOT induce vomiting. Call a physician or poison control center immediately.

Most important symptoms and

effects

Causes burns by all exposure routes. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting: Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation: Inhalation of high vapor concentrations may cause symptoms

like headache, dizziness, tiredness, nausea and vomiting

Notes to Physician Treat symptomatically

# 5. Fire-fighting measures

Suitable Extinguishing Media Carbon dioxide (CO<sub>2</sub>). Dry chemical. Use extinguishing measures that are appropriate to

local circumstances and the surrounding environment. Chemical foam. Water mist may be used to cool closed containers. CO<sub>2</sub>, dry chemical, dry sand, alcohol-resistant foam.

Unsuitable Extinguishing Media No information available

**Flash Point** 18 °C / 64.4 °F

Method - No information available

**Autoignition Temperature** 

**Explosion Limits** 

Upper No data available
Lower No data available
Sensitivity to Mechanical Impact No information available
Sensitivity to Static Discharge No information available

#### **Specific Hazards Arising from the Chemical**

Thermal decomposition can lead to release of irritating gases and vapors. The product causes burns of eyes, skin and mucous membranes. Flammable. Containers may explode when heated. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back.

#### **Hazardous Combustion Products**

Carbon monoxide (CO). Carbon dioxide (CO2). Phosgene. Hydrogen chloride gas.

# **Protective Equipment and Precautions for Firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

NFPA

Health Flammability Instability Physical hazards
3 3 0 N/A

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#### Accidental release measures

**Personal Precautions** 

Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Remove all sources of ignition. Take precautionary measures against static discharges.

**Environmental Precautions** 

Should not be released into the environment.

Up

Methods for Containment and Clean Keep in suitable, closed containers for disposal. Soak up with inert absorbent material. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.

## 7. Handling and storage

Handling

Wear personal protective equipment/face protection. Do not get in eyes, on skin, or on clothing. Use only under a chemical fume hood. Do not breathe mist/vapors/spray. Do not ingest. If swallowed then seek immediate medical assistance. Keep away from open flames, hot surfaces and sources of ignition. Use only non-sparking tools. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. Take precautionary measures against static discharges.

Storage.

Flammables area. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Store under an inert atmosphere. Keep containers tightly closed in a dry, cool and well-ventilated place. Corrosives area. Keep away from heat, sparks and flame. Incompatible Materials. Water. Strong bases. Alcohols.

# Exposure controls / personal protection

**Exposure Guidelines** 

This product does not contain any hazardous materials with occupational exposure limitsestablished by the region specific regulatory bodies.

**Engineering Measures** 

Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location. Use explosion-proof

electrical/ventilating/lighting equipment.

Personal Protective Equipment

**Eye/face Protection** Wear appropriate protective eyeglasses or chemical safety goggles as described by

OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard

Skin and body protection Wear appropriate protective gloves and clothing to prevent skin exposure.

**Respiratory Protection** Wear a NIOSH/MSHA or European Standard EN 149 approved full-facepiece airline

respirator in the positive pressure mode with emergency escape provisions.

**Hygiene Measures** Handle in accordance with good industrial hygiene and safety practice.

### Physical and chemical properties

**Physical State** Liquid Light yellow **Appearance** Odor Stench

No information available **Odor Threshold** 

Not applicable pН **Melting Point/Range** No data available

**Boiling Point/Range** 115 - 117 °C / 239 - 242.6 °F @ 760 mmHg

18 °C / 64.4 °F **Flash Point** No information available **Evaporation Rate** Not applicable

Flammability (solid,gas) Flammability or explosive limits

UpperNo data availableLowerNo data availableVapor PressureNo information availableVapor DensityNo information available

Specific Gravity 0.980

Solubility

No information available

Partition coefficient; n-octanol/water

Autoignition Temperature

No data available
No information available

Decomposition TemperatureNo information availableViscosityNo information available

Molecular Formula C5 H9 Cl O Molecular Weight 120.58

# 10. Stability and reactivity

Reactive Hazard None known, based on information available

**Stability** Moisture sensitive.

**Conditions to Avoid** Keep away from open flames, hot surfaces and sources of ignition. Incompatible products.

Exposure to moisture.

Incompatible Materials Water, Strong bases, Alcohols

Hazardous Decomposition Products Carbon monoxide (CO), Carbon dioxide (CO2), Phosgene, Hydrogen chloride gas

**Hazardous Polymerization** Hazardous polymerization does not occur.

**Hazardous Reactions** None under normal processing.

# 11. Toxicological information

**Acute Toxicity** 

Product Information Component Information

Toxicologically Synergistic No information available

**Products** 

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation Causes burns by all exposure routes

Sensitization No information available

**Carcinogenicity** The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	CAS No	IARC	NTP	ACGIH	OSHA	Mexico
Butanoyl chloride,	108-12-3	Not listed				
3-methyl-						

Mutagenic Effects No information available

**Reproductive Effects** No information available.

**Developmental Effects** No information available.

**Teratogenicity** No information available.

STOT - single exposure None known STOT - repeated exposure None known

Aspiration hazard No information available

Symptoms / effects,both acute and Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting:

delayed

Product is a corrosive material. Use of gastric lavage or emesis is contraindicated.

Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation: Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness,

nausea and vomiting

**Endocrine Disruptor Information** 

No information available

**Other Adverse Effects** 

The toxicological properties have not been fully investigated.

# 12. Ecological information

**Ecotoxicity** 

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Persistence and Degradability

Soluble in water Persistence is unlikely based on information available.

**Bioaccumulation/ Accumulation** 

No information available.

Mobility

Will likely be mobile in the environment due to its water solubility.

# 13. Disposal considerations

**Waste Disposal Methods** 

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

## 14. Transport information

DOT

UN-No UN2920

Proper Shipping Name Corrosive liquid, flammable, n.o.s.
Technical Name (ISOVALERYL CHLORIDE)

Hazard Class 8

Subsidiary Hazard Class 3
Packing Group ||

TDG

UN-No UN2920

Proper Shipping Name Corrosive liquid, flammable, n.o.s.

Hazard Class 8
Subsidiary Hazard Class 3
Packing Group ||

IATA\_

UN-No UN2920

**Proper Shipping Name** Corrosive liquid, flammable, n.o.s.

Hazard Class 8
Subsidiary Hazard Class 3
Packing Group ||

IMDG/IMO

UN-No UN2920

**Proper Shipping Name** Corrosive liquid, flammable, n.o.s.

Hazard Class 8
Subsidiary Hazard Class 3
Packing Group ||

# 15. Regulatory information

### **United States of America Inventory**

	2121			
Component	CAS No	TSCA	TSCA Inventory notification -	TSCA - EPA Regulatory

			Active-Inactive	Flags
Butanoyl chloride, 3-methyl-	108-12-3	Χ	ACTIVE	-

Legend:

TSCA US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)

X - Listed

'-' - Not Listed

TSCA - Per 40 CFR 751, Regulation of Certain Chemical Substances & Mixtures, Under TSCA Section 6(h) (PBT)

Not applicable

TSCA 12(b) - Notices of Export

Not applicable

#### **International Inventories**

Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Japan (ISHL), Australia (AICS), China (IECSC), Korea (KECL).

Component	CAS No	DSL	NDSL	EINECS	PICCS	ENCS	ISHL	AICS	IECSC	KECL
Butanoyl chloride, 3-methyl-	108-12-3	Х	-	203-552-2	Χ	Χ	Χ	Χ	Χ	KE-23585

KECL - NIER number or KE number (http://ncis.nier.go.kr/en/main.do)

### U.S. Federal Regulations

SARA 313 Not applicable

SARA 311/312 Hazard Categories See section 2 for more information

CWA (Clean Water Act) Not applicable

Clean Air Act Not applicable

**OSHA** - Occupational Safety and

Health Administration

Not applicable

CERCLA Not applicable

California Proposition 65 This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know

Regulations

Not applicable

#### **U.S. Department of Transportation**

Reportable Quantity (RQ): N
DOT Marine Pollutant N
DOT Severe Marine Pollutant N

U.S. Department of Homeland

Security

This product does not contain any DHS chemicals.

Other International Regulations

Mexico - Grade No information available

Authorisation/Restrictions according to EU REACH Not applicable

Component	CAS No	REACH (1907/2006) -	REACH (1907/2006) -	REACH Regulation (EC
·		Annex XIV - Substances	Annex XVII - Restrictions	1907/2006) article 59 -
		Subject to Authorization	on Certain Dangerous	Candidate List of

			Substances	Substances of Very High Concern (SVHC)
Butanoyl chloride, 3-methyl-	108-12-3	-	-	-

#### Safety, health and environmental regulations/legislation specific for the substance or mixture

Component	CAS No	OECD HPV	Persistent Organic Pollutant	Ozone Depletion Potential	Restriction of Hazardous Substances (RoHS)
Butanoyl chloride, 3-methyl-	108-12-3	Not applicable	Not applicable	Not applicable	Not applicable
Component	CAS No	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements	Rotterdam Convention (PIC)	Basel Convention (Hazardous Waste)

16. Other information	
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Prepared By Regulatory Affairs

108-12-3

Thermo Fisher Scientific

Email: EMSDS.RA@thermofisher.com

Not applicable

 Creation Date
 10-Nov-2010

 Revision Date
 28-Mar-2022

 Print Date
 28-Mar-2022

Revision Summary This document has been updated to comply with the US OSHA HazCom 2012 Standard

replacing the current legislation under 29 CFR 1910.1200 to align with the Globally

Not applicable

Not applicable

Not applicable

Harmonized System of Classification and Labeling of Chemicals (GHS).

#### Disclaimer

Butanoyl chloride, 3-methyl-

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

**End of SDS**