

# SAFETY DATA SHEET

Creation Date 11-Aug-2015

Revision Date 20-Dec-2025

Revision Number 6

This safety data sheet was created pursuant to the requirements of: US OSHA Hazard Communication Standard 2024 (29 CFR 1910.1200)

## 1. Identification

**Product Name** 2-Methyl-4-isothiazolin-3-one, 50% aqueous solution

**Cat No. :** AC459970000; AC459970050; AC459970250

**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  
Tel: (201) 796-7100

Acros Organics  
One Reagent Lane  
Fair Lawn, NJ 07410

#### **Emergency Telephone Number**

For information **US** call: 001-800-227-6701 / **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 according to [US] OSHA (29 CFR 1910.1200, 2024)

Acute oral toxicity	Category 3
Acute dermal toxicity	Category 3
Acute Inhalation Toxicity - Dusts and Mists	Category 2
Skin Corrosion/Irritation	Category 1 B
Serious Eye Damage/Eye Irritation	Category 1
Skin Sensitization	Category 1

### Label Elements

#### **Signal Word**

Danger

#### **Hazard Statements**



Causes severe skin burns and eye damage  
May cause an allergic skin reaction  
Fatal if inhaled  
Toxic if swallowed or in contact with skin

**Precautionary Statements****Prevention**

Wash face, hands and any exposed skin thoroughly after handling  
Do not eat, drink or smoke when using this product  
Wear protective gloves/protective clothing/eye protection/face protection  
Do not breathe dust/fume/gas/mist/vapors/spray  
Use only outdoors or in a well-ventilated area  
Wear respiratory protection  
Contaminated work clothing should not be allowed out of the workplace

**Response**

Immediately call a POISON CENTER or doctor

**Inhalation**

IF INHALED: Remove person to fresh air and keep comfortable for breathing  
Immediately call a POISON CENTER or doctor

**Skin**

Take off contaminated clothing and wash before reuse  
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower  
If skin irritation or rash occurs: Get medical advice/attention

**Eyes**

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

**Ingestion**

Rinse mouth  
Do NOT induce vomiting

**Storage**

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

**Disposal**

Dispose of contents/container to an approved waste disposal plant

**Hazards not otherwise classified (HNOC)**

Very toxic to aquatic life with long lasting effects  
Corrosive to the respiratory tract

**Hazards classified under paragraph (d)(1)(ii) of 1910.1200**

No information available

### 3. Composition/information on Ingredients

Component	CAS No	Weight %
Water	7732-18-5	50
2-Methyl-3-isothiazolone	2682-20-4	50

### 4. First-aid measures

**General Advice**

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



	required.
<b>Eye Contact</b>	In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
<b>Skin Contact</b>	Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.
<b>Inhalation</b>	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.
<b>Ingestion</b>	Do NOT induce vomiting. Call a physician or poison control center immediately.
<b>Most important symptoms and effects</b>	Causes burns by all exposure routes. May cause allergic skin reaction. 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: Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing
<b>Notes to Physician</b>	Treat symptomatically

## 5. Fire-fighting measures

<b>Suitable Extinguishing Media</b>	CO <sub>2</sub> , dry chemical, dry sand, alcohol-resistant foam.
<b>Unsuitable Extinguishing Media</b>	No information available
<b>Flash Point</b>	No information available
<b>Method -</b>	No information available
<b>Autoignition Temperature</b>	No information available
<b>Explosion Limits</b>	
<b>Upper</b>	No data available
<b>Lower</b>	No data available
<b>Sensitivity to Mechanical Impact</b>	No information available
<b>Sensitivity to Static Discharge</b>	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. Do not allow run-off from fire-fighting to enter drains or water courses.

### Hazardous Combustion Products

Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>). Nitrogen oxides (NO<sub>x</sub>). Sulfur oxides.

### 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**  
4

**Flammability**  
1

**Instability**  
1

**Physical hazards**  
N/A

## 6. Accidental release measures

<b>Personal Precautions</b>	Use personal protective equipment as required. Ensure adequate ventilation. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.
<b>Environmental Precautions</b>	Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system. Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained.



**Methods for Containment and Clean Up** Soak up with inert absorbent material. Keep in suitable, closed containers for disposal.

## 7. Handling and Storage

<b>Handling</b>	Do not get in eyes, on skin, or on clothing. Wear personal protective equipment/face protection. Use only under a chemical fume hood. Do not breathe mist/vapors/spray. Do not ingest. If swallowed then seek immediate medical assistance.
<b>Storage.</b>	Corrosives area. Keep container tightly closed in a dry and well-ventilated place. To maintain product quality: Keep refrigerated. Store under an inert atmosphere. Incompatible Materials. Strong oxidizing agents.

## 8. Exposure controls / personal protection

<b>Exposure Guidelines</b>	This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.
<b>Engineering Measures</b>	Ensure that eyewash stations and safety showers are close to the workstation location.
<b>Personal Protective Equipment</b>	
<b>Eye/face Protection</b>	Tight sealing safety goggles. Face protection shield.
<b>Skin and body protection</b>	Wear appropriate protective gloves and clothing to prevent skin exposure.
<b>Respiratory Protection</b>	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.
<b>Recommended Filter type:</b>	Organic gases and vapours filter. Type A. Brown. conforming to EN14387.
<b>Hygiene Measures</b>	Handle in accordance with good industrial hygiene and safety practice.

## 9. Physical and chemical properties

<b>Appearance</b>			
<b>Physical State</b>	Liquid		
<b>Color</b>			
<b>Odor</b>	No information available		
<b>Odor Threshold</b>	No information available		
<b>Property</b>	<b>Values</b>	<b>Remarks</b>	<b>• Method</b>
<b>Melting Point/Range</b>	No data available		
<b>Softening Point</b>	No data available		
<b>Boiling Point/Range</b>	No information available		
<b>Flash Point</b>	No information available		
<b>Flammability (liquid)</b>	No data available		
<b>Flammability (solid,gas)</b>	Not applicable		
<b>Explosion Limits</b>	No data available		
<b>Autoignition Temperature</b>	No data available		
<b>Decomposition Temperature</b>	No data available		
<b>pH</b>	No information available		
<b>Viscosity</b>	No data available		
<b>Water Solubility</b>	No information available		
<b>Solubility in other solvents</b>	No information available		



**Partition Coefficient (n-octanol/water)**

<b>Component</b>	<b>log Pow</b>	
2-Methyl-3-isothiazolone	-0.26	
<b>Vapor Pressure</b>	No data available	
<b>Density / Specific Gravity</b>	1.16	
<b>Bulk Density</b>	Not applicable	Liquid
<b>Vapor Density</b>	No data available	(Air = 1.0)
<b>Particle characteristics</b>	Not applicable (liquid)	

**Other Information**

<b>Molecular Formula</b>	C4 H5 N O S
<b>Molecular Weight</b>	115.15

## 10. Stability and reactivity

<b>Reactive Hazard</b>	None known, based on information available
<b>Stability</b>	Air sensitive.
<b>Conditions to Avoid</b>	Incompatible products. Excess heat. Exposure to air.
<b>Incompatible Materials</b>	Strong oxidizing agents
<b>Hazardous Decomposition Products</b>	Carbon monoxide (CO), Carbon dioxide (CO <sub>2</sub> ), Nitrogen oxides (NO <sub>x</sub> ), Sulfur oxides
<b>Hazardous Polymerization</b>	Hazardous polymerization does not occur.
<b>Hazardous Reactions</b>	None under normal processing.

## 11. Toxicological information

**Information on expected route of exposure**

<b>Inhalation</b>	May produce an allergic reaction.
<b>Ingestion</b>	May cause allergic reaction. May be harmful if swallowed.
<b>Eyes</b>	Avoid contact with eyes. Corrosive to the eyes and may cause severe damage including blindness. Sensitization.
<b>Skin</b>	Avoid contact with skin. Causes burns. Skin Corrosion/Irritation. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons. Harmful in contact with skin.

**Toxicology data for the components**

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Water	-	-	-
2-Methyl-3-isothiazolone	LD50 232 - 249 mg/kg ( Rat ) LD50 = 120 mg/kg ( Rat )	LD50 = 200 mg/kg ( Rabbit )	LC50 = 0.11 mg/L ( Rat ) 4 h

<b>Toxicologically Synergistic Products</b>	No information available
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<b>(b) skin corrosion/irritation;</b>	Category 1 B
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<b>(c) serious eye damage/irritation;</b>	Category 1
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<b>(d) respiratory or skin sensitization;</b>	
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**Respiratory  
Skin**No data available  
Category 1

No information available

**(e) germ cell mutagenicity;**

No data available

**(f) carcinogenicity;**

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

Component	CAS No	IARC	NTP	ACGIH	OSHA	Mexico
Water	7732-18-5	Not listed	Not listed	Not listed	Not listed	Not listed
2-Methyl-3-isothiazolone	2682-20-4	Not listed	Not listed	Not listed	Not listed	Not listed

**(g) reproductive toxicity;**

No data available

**(h) STOT-single exposure;**

No data available

**(i) STOT-repeated exposure;**

No data available

**Target Organs**

No information available.

**(j) aspiration hazard;**

No data available

**Symptoms / effects, both acute and 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. Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing.

**Other Adverse Effects**

The toxicological properties have not been fully investigated.

**Endocrine Disrupting Properties**

This product does not contain any known or suspected endocrine disruptors.

## 12. Ecological information

**Ecotoxicity**

The product contains following substances which are hazardous for the environment. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
2-Methyl-3-isothiazolone	Not listed	LC50: 0.07 mg/L/96h (Oncorhynchus mykiss)	Not listed	EC50: 0.18 mg/L/48h

**Persistence and Degradability**

No information available

**Bioaccumulation/ Accumulation**

No information available.

**Mobility**

No information available.

Component	log Pow
2-Methyl-3-isothiazolone	-0.26

## 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 UN2927  
 Proper Shipping Name TOXIC LIQUIDS, CORROSIVE, ORGANIC, N.O.S.  
 Technical Shipping Name 2-Methyl-4-isothiazolin-3-one, 50% aqueous solution  
 Hazard Class 6.1  
 Subsidiary Hazard Class 8  
 Packing Group II

### TDG

UN-No UN2927  
 Proper Shipping Name Toxic liquid, corrosive, organic, n.o.s.  
 Technical Shipping Name 2-Methyl-4-isothiazolin-3-one, 50% aqueous solution  
 Hazard Class 6.1  
 Subsidiary Hazard Class 8  
 Packing Group II

### IATA

UN-No UN2927  
 Proper Shipping Name Toxic liquid, corrosive, organic, n.o.s.  
 Technical Shipping Name 2-Methyl-4-isothiazolin-3-one, 50% aqueous solution  
 Hazard Class 6.1  
 Subsidiary Hazard Class 8  
 Packing Group II

### IMDG/IMO

UN-No UN2927  
 Proper Shipping Name Toxic liquid, corrosive, organic, n.o.s.  
 Technical Shipping Name 2-Methyl-4-isothiazolin-3-one, 50% aqueous solution  
 Hazard Class 6.1  
 Subsidiary Hazard Class 8  
 Packing Group II

## 15. Regulatory Information

### United States of America Inventory

Component	CAS No	TSCA	TSCA Inventory notification - Active-Inactive	TSCA - EPA Regulatory Flags
Water	7732-18-5	X	ACTIVE	-
2-Methyl-3-isothiazolone	2682-20-4	X	ACTIVE	PMN;SP

#### Legend:

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

X - Listed

'-' - Not Listed

PMN - Indicates a commenced PMN substance

SP - Indicates a substance that is identified in a proposed SNUR

### 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

Component	CAS No	TSCA 12(b) - Notices of Export
2-Methyl-3-isothiazolone	2682-20-4	Section 5(a)(2)

### International Inventories

Canada (DSL/NDL), 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
Water	7732-18-5	X	-	231-791-2	X	X		X	X	KE-35400
2-Methyl-3-isothiazolone	2682-20-4	X	-	220-239-6	X	X	X	X	X	KE-24316

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

### U.S. Federal Regulations

#### **SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

#### **SARA 311/312 Hazard Categories**

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

**CWA (Clean Water Act)** Not applicable

**Clean Air Act** Not applicable

**OSHA - Occupational Safety and Health Administration** Not applicable

#### **CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

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

### **U.S. State Right-to-Know Regulations**

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Water	-	-	X	-	-

#### **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**

Component	CAS No	REACH (1907/2006) - Annex XIV - Substances Subject to Authorization	REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances	REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC)
Water	7732-18-5	-	-	-
2-Methyl-3-isothiazolone	2682-20-4	-	Use restricted. See entry	-



			75. (see link for restriction details)	
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## REACH links

<https://echa.europa.eu/substances-restricted-under-reach>

## 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)
Water	7732-18-5	Listed	Not applicable	Not applicable	Not applicable
2-Methyl-3-isothiazolone	2682-20-4	Listed	Not applicable	Not applicable	Not applicable

## Contains component(s) that meet a 'definition' of per &amp; poly fluoroalkyl substance (PFAS)?

Not applicable

## Other International Regulations

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)
Water	7732-18-5	Not applicable	Not applicable	Not applicable	Not applicable
2-Methyl-3-isothiazolone	2682-20-4	Not applicable	Not applicable	Not applicable	Not applicable

## 16. Other Information

## Prepared By

Product stewardship (Regulatory Affairs)  
Thermo Fisher Scientific  
email - [begel.sdsdesk@thermofisher.com](mailto:begel.sdsdesk@thermofisher.com)

## Creation Date

11-Aug-2015

## Revision Date

20-Dec-2025

## Print Date

20-Dec-2025

## Revision Summary

Updated to the U.S. Department of Labor's Occupational Safety and Health Administration (OSHA) which published its Final Rule in the Federal Register revising the Hazard Communication Standard (HCS/HazCom), 29 CFR 1910.1200 (2024) (HCS §1910.1200, 2024), May 20, 2024, effective July 19, 2024.

## Disclaimer

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**