

# SAFETY DATA SHEET

Creation Date 26-Sep-2009

Revision Date 19-Dec-2025

Revision Number 5

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	2H-Pyran-2-one
Cat No. :	AC376810000; AC376810010; AC376810050
Synonyms	\$1-Pyrone
Recommended Use Uses advised against	Laboratory chemicals. 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

Classification according to [US] OSHA (29 CFR 1910.1200, 2024)

This product is not considered hazardous by the US OSHA Hazard Communication Standard 2024 (29 CFR 1910.1200).

### Label Elements

None required

### Hazards not otherwise classified (HNOC)

None identified

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

No information available

### 3. Composition/information on Ingredients

Component	CAS No	Weight %
2H-Pyran-2-one	504-31-4	<=100

### 4. First-aid measures

<b>Eye Contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.
<b>Skin Contact</b>	Wash off immediately with plenty of water for at least 15 minutes. Get medical attention.
<b>Inhalation</b>	Remove to fresh air. If not breathing, give artificial respiration. Get medical attention.
<b>Ingestion</b>	Do NOT induce vomiting. Get medical attention.
<b>Most important symptoms and effects</b>	Difficulty in breathing. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting
<b>Notes to Physician</b>	Treat symptomatically

### 5. Fire-fighting measures

**Suitable Extinguishing Media** Water spray. Carbon dioxide (CO<sub>2</sub>). Dry chemical. Chemical foam.

**Unsuitable Extinguishing Media** No information available

**Flash Point** 94 °C / 201.2 °F

**Method -** No information available

**Autoignition Temperature** No information available  
**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

Flammable.

#### Hazardous Combustion Products

Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>).

#### 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.

#### NFPA

Health  
1

Flammability  
1

Instability  
0

Physical hazards  
N/A

### 6. Accidental release measures

**Personal Precautions** Ensure adequate ventilation. Use personal protective equipment as required.

**Environmental Precautions** Should not be released into the environment.

**Methods for Containment and Clean** Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder,

**Up** sawdust). Keep in suitable, closed containers for disposal. Do not let this chemical enter the environment.

## 7. Handling and Storage

**Handling** Ensure adequate ventilation. Avoid contact with skin and eyes. Do not breathe mist/vapors/spray. Do not ingest. If swallowed then seek immediate medical assistance. Wash hands before breaks and immediately after handling the product.

**Storage.** Keep in a dry place. Keep container tightly closed. Keep refrigerated. Incompatible Materials. Strong oxidizing agents.

## 8. 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** None under normal use conditions.

### 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 EN166.

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

**Respiratory Protection** No protective equipment is needed under normal use conditions.

**Recommended Filter type:** Particle filter.

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

## 9. Physical and chemical properties

### Appearance

<b>Physical State</b>	Liquid	
<b>Color</b>	Amber	
<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>	8 - 9 °C / 46.4 - 48.2 °F	
<b>Softening Point</b>	No data available	
<b>Boiling Point/Range</b>	104 °C / 219.2 °F	@ 30 mmHg
<b>Flash Point</b>	94 °C / 201.2 °F	<b>Method</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	Liquid
<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	
<b>Partition Coefficient (n-octanol/water)</b>		

<b>Vapor Pressure</b>	No data available
<b>Density / Specific Gravity</b>	1.210
<b>Bulk Density</b>	Not applicable
<b>Vapor Density</b>	No data available
<b>Particle characteristics</b>	Liquid (Air = 1.0) Not applicable (liquid)

**Other Information**

<b>Molecular Formula</b>	C5 H4 O2
<b>Molecular Weight</b>	96.09

**10. Stability and reactivity**

**Reactive Hazard** None known, based on information available

**Stability** Stable under normal conditions.

**Conditions to Avoid** Incompatible products.

**Incompatible Materials** Strong oxidizing agents

**Hazardous Decomposition Products** Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>)

**Hazardous Polymerization** No information available.

**Hazardous Reactions** None under normal processing.

**11. Toxicological information****Information on expected route of exposure**

**Inhalation** Avoid breathing vapors or mists.

**Ingestion** No known effect based on information supplied.

**Eyes** Not an expected route of exposure.

**Skin** Prolonged skin contact may defat the skin and produce dermatitis.

**Toxicology data for the components**

**Toxicologically Synergistic Products** No information available

**(b) skin corrosion/irritation;** No data available

**(c) serious eye damage/irritation;** No data available

**(d) respiratory or skin sensitization;**  
**Respiratory** No data available  
**Skin** No data 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
2H-Pyran-2-one	504-31-4	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

**Other Adverse Effects** The toxicological properties have not been fully investigated.

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

**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

Do not empty into drains.

**Persistence and Degradability** No information available

**Bioaccumulation/ Accumulation** No information available.

**Mobility** No information available.

## 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** Not regulated

**TDG** Not regulated

**IATA** Not regulated

**IMDG/IMO** Not regulated

## 15. Regulatory Information

### United States of America Inventory

Component	CAS No	TSCA	TSCA Inventory notification - Active-Inactive	TSCA - EPA Regulatory Flags
2H-Pyran-2-one	504-31-4	-	-	-

**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
2H-Pyran-2-one	504-31-4	-	-	207-990-5	-	-	-	-	-	-

**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** 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) - 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)
2H-Pyran-2-one	504-31-4	-	-	-

#### 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)
2H-Pyran-2-one	504-31-4	Not applicable	Not applicable	Not applicable	Not applicable

Contains component(s) that meet a 'definition' of per & 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)
2H-Pyran-2-one	504-31-4	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
Creation Date	26-Sep-2009
Revision Date	19-Dec-2025
Print Date	19-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**