

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product Identifier

Product Description: 1-Hydroxy-7-azabenzotriazole
Cat No. : S60240
CAS No 39968-33-7
Molecular Formula C5 H4 N4 O

Relevant identified uses of the substance or mixture and uses advised against

Recommended Use Laboratory chemicals.
Uses advised against No Information available

Details of the supplier of the safety data sheet
Importer

Fisher Scientific Korea
 D5,D6, Incheon Airport Logistics Complex
 150, Gonghangdong-Ro 296 Beon-Gil
 Jung-Gu, Incheon
 Tel: +82-1661-9555
 Fax: +82-2-2023-0603

Supplier

Thermo Fisher Scientific Chemicals, Inc.
 30 Bond Street
 Ward Hill, MA 01835-8099

E-mail address

Chem.KR@thermofisher.com

Emergency Telephone Number

Emergency telephone: Medical: +(82) 070-7686-0086 or + 1-703-741-5970
 CHEMTREC: 080 822 1374 (Local), CHEMTREC: 1-800-424-9300 or + 1-703-527-3887
 Korea: 00-308-13-2549 (24 hours a day, 7 days a week)

SECTION 2: HAZARDS IDENTIFICATION

Classification of the substance or mixture
Physical hazards

Explosives

Division 1.4

Health hazards

Skin Corrosion/Irritation
 Serious Eye Damage/Eye Irritation

Category 2
 Category 1

Environmental hazards

Based on available data, the classification criteria are not met

Label Elements

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Signal Word

Danger

Hazard Statements

H204 - Fire or projection hazard

H315 - Causes skin irritation

H318 - Causes serious eye damage

Precautionary Statements

Prevention

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking

P240 - Ground and bond container and receiving equipment

P250 - Do not subject to grinding/shock/friction

P264 - Wash face, hands and any exposed skin thoroughly after handling

P280 - Wear protective gloves/protective clothing/eye protection/face protection

Response

P302 + P352 - IF ON SKIN: Wash with plenty of soap and water

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P310 - Immediately call a POISON CENTER or doctor

P362 + P364 - Take off contaminated clothing and wash it before reuse

P370 + P372 + P380 + P373 - In case of fire: Explosion risk. Evacuate area. DO NOT fight fire when fire reaches explosives

P373 - DO NOT fight fire when fire reaches explosives

P374 - Fight fire with normal precautions from a reasonable distance

Storage

P401 - Store in accordance with local regulations

Disposal

P501 - Dispose of contents/ container to an approved waste disposal plant

Other Hazards

This product does not contain any known or suspected endocrine disruptors
Toxic to terrestrial vertebrates

NFPA

Health
2

Flammability
1

Instability
2

Physical hazards
N/A

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Component	Common Name	CAS No	Index No	Weight %
1-Hydroxy-7-Azabenzotriazole	No information available	39968-33-7	Not listed	99 - 100

SECTION 4: FIRST AID MEASURES

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Description of first aid measures

Eye Contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
Skin Contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.
Ingestion	Clean mouth with water and drink afterwards plenty of water.
Inhalation	Remove to fresh air.
Self-Protection of the First Aider	Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.

Most important symptoms and effects, both acute and delayed

Causes severe eye damage. Causes eye burns.

Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES

Extinguishing media

Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Extinguishing media which must not be used for safety reasons

No information available.

Special hazards arising from the substance or mixture

Thermal decomposition can lead to release of irritating gases and vapors.

Hazardous Combustion Products

Carbon oxides, Nitrogen oxides (NO_x).

Advice for fire-fighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

Ensure adequate ventilation.

Environmental precautions

See Section 12 for additional Ecological Information.

Methods and Material for Containment and Cleaning Up

Reference to Other Sections

Refer to protective measures listed in Sections 8 and 13.

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SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling

Ensure adequate ventilation.

Conditions for Safe Storage, Including any Incompatibilities

Keep container tightly closed in a dry and well-ventilated place.

Specific End Uses

Use in laboratories.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Component	CAS No	Korea	ACGIH TLV	OSHA PEL
1-Hydroxy-7-Azabenzotriazole	39968-33-7	Not listed	Not listed	Not listed

Component	CAS No	European Union	The United Kingdom	Germany
1-Hydroxy-7-Azabenzotriazole	39968-33-7	Not listed	Not listed	Not listed

ACGIH - Biological Exposure Indices

Component	CAS No	ACGIH - Biological Exposure Indices
1-Hydroxy-7-Azabenzotriazole	39968-33-7	Not listed

Exposure Controls

Engineering Measures

Ensure that eyewash stations and safety showers are close to the workstation location.

Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source

Personal protective equipment

Eye Protection

Goggles

Hand Protection

Protective gloves

Skin and body protection

Long sleeved clothing

Inspect gloves before use.

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves.

(Refer to manufacturer/supplier for information)

Ensure gloves are suitable for the task: Chemical compatibility, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion.

Remove gloves with care avoiding skin contamination.

Personal protective equipment

Respiratory Protection

Use only those certified by the Korea Occupational Safety and Health Administration.

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators

Recommended Filter type:

Particulates filter conforming to EN 143

To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained properly

When RPE is used a face piece Fit Test should be conducted

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Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice

Environmental exposure controls

No information available

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance (Physical State, Color, etc.) Powder Solid

Odor No information available

Odor Threshold No data available

pH Not applicable

Melting Point/Range No data available

Softening Point No data available

Boiling Point/Range No information available

Flash Point No information available

Method - No information available

Evaporation Rate Not applicable

Solid

Flammability (solid,gas) No information available

Explosion Limits No data available

Vapor Pressure No data available

Vapor Density Not applicable

Solid

Specific Gravity / Density No data available

Bulk Density No data available

Water Solubility No information available

Solubility in other solvents No information available

Partition Coefficient (n-octanol/water)

Component	CAS No	log Pow
1-Hydroxy-7-Azabenzotriazole	39968-33-7	No data available

Autoignition Temperature No data available

Decomposition Temperature No data available

Viscosity Not applicable

Solid

Explosive Properties No information available

Oxidizing Properties No information available

Molecular Formula C5 H4 N4 O

Molecular Weight 136.11

SECTION 10: STABILITY AND REACTIVITY

Reactivity

None known, based on information available

Chemical Stability

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Stable under normal conditions.

Possibility of Hazardous Reactions

Hazardous Polymerization No information available.
Hazardous Reactions No information available.

Conditions to Avoid

Ignitions sources - heat, sparks and open flames.

Incompatible Materials

None known.

Hazardous Decomposition Products

Carbon oxides. Nitrogen oxides (NOx).

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Product Information

Information on expected route of exposure

Inhalation Avoid breathing dust or spray mist. May be harmful if inhaled.
Ingestion May be harmful if swallowed.
Eyes Avoid contact with eyes. Corrosive to the eyes and may cause severe damage including blindness. May cause irritation.
Skin Avoid contact with skin. Skin Corrosion/Irritation. May cause irritation.

Information on Health Hazards

(a) acute toxicity;

Oral No data available
Dermal No data available
Inhalation No data available

Component	CAS No	LD50 Oral	LD50 Dermal	LC50 Inhalation
1-Hydroxy-7-Azabenzotriazole	39968-33-7	No data available	No data available	No data available

(b) skin corrosion/irritation; Category 2

(c) serious eye damage/irritation; Category 1

(d) respiratory or skin sensitization;

Respiratory No data available
Skin No data available

Component	CAS No	Test method	Test species	Study result
1-Hydroxy-7-Azabenzotriazole	39968-33-7	No data available	No data available	No data available

(e) germ cell mutagenicity; No data available

Component	CAS No	Test method	Test species	Study result
1-Hydroxy-7-Azabenzotriazole	39968-33-7	No data available	No data available	No data available

(f) carcinogenicity; No data available

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Component	CAS No	Test method	Test species / Duration	Study result
1-Hydroxy-7-Azabenzotriazole	39968-33-7	No data available	No data available	No data available

There are no known carcinogenic chemicals in this product

Component	CAS No	IARC	NTP	ACGIH	OSHA	UK
1-Hydroxy-7-Azabenzotriazole	39968-33-7	Not listed	Not listed	Not listed	Not listed	Not listed

(g) reproductive toxicity; No data available

Component	CAS No	Test method	Test species / Duration	Study result
1-Hydroxy-7-Azabenzotriazole	39968-33-7	No data available	No data available	No data available

(h) STOT-single exposure; No data available

(i) STOT-repeated exposure; No data available

Target Organs None known.

(j) aspiration hazard; Not applicable
Solid

Other Adverse Effects

No information available.

Component	CAS No	EU - Endocrine Disruptors Candidate List	EU - Endocrine Disruptors - Evaluated Substances	Japan - Endocrine Disruptor Information
1-Hydroxy-7-Azabenzotriazole	39968-33-7	Not applicable	Not applicable	Not applicable

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity effects Contains no substances known to be hazardous to the environment or that are not degradable in waste water treatment plants.

Component	CAS No	Freshwater Fish	Water Flea	Freshwater Algae	Microtox
1-Hydroxy-7-Azabenzotriazole	39968-33-7	No data available	No data available	No data available	No data available

Persistence and degradability No information available

Bioaccumulative potential No information available

Mobility in soil No information available

Ozone Depletion Potential

Component	CAS No	Ozone Depletion Potential
1-Hydroxy-7-Azabenzotriazole	39968-33-7	Not listed

Other adverse effects No information available

SECTION 13: DISPOSAL CONSIDERATIONS

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Waste treatment methods

Waste from Residues/Unused Products

Waste is classified as hazardous. Dispose in accordance with the Wastes Control Act (폐기물관리법).

Contaminated Packaging

Dispose of this container to hazardous or special waste collection point.

Other Information

Waste codes should be assigned by the user based on the application for which the product was used. Do not empty into drains. Do not flush to sewer.

SECTION 14: TRANSPORT INFORMATION

Road and Rail Transport

UN-No UN0481
Proper Shipping Name SUBSTANCES, EXPLOSIVE, N.O.S.
Technical Shipping Name 1-Hydroxy-7-azabenzotriazole
Hazard Class 1

IATA

UN-No UN0481
Proper Shipping Name SUBSTANCES, EXPLOSIVE, N.O.S.
Technical Shipping Name 1-Hydroxy-7-azabenzotriazole
Hazard Class 1.4S

IMDG/IMO

UN-No UN0481
Proper Shipping Name SUBSTANCES, EXPLOSIVE, N.O.S.
Technical Shipping Name 1-Hydroxy-7-azabenzotriazole
Hazard Class 1
Marine Pollutant No hazards identified

Special Precautions for User

No special precautions required

SECTION 15: REGULATORY INFORMATION

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

Legend: X - Listed '-' - Not Listed

International Inventories

Component	CAS No	KECL	TSCA	EINECS	IECSC	DSL	NDSL	PICCS	ENCS	ISHL	AICS
1-Hydroxy-7-Azabenzotriazole	39968-33-7	-	-	-	-	-	-	-	-	-	-

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)
1-Hydroxy-7-Azabenzotriazole	39968-33-7	Not applicable	Not applicable	Not applicable	Not applicable

Component	CAS No	OECD HPV	Persistent Organic Pollutant	Ozone Depletion Potential
1-Hydroxy-7-Azabenzotriazole	39968-33-7	Not applicable	Not applicable	Not applicable

Korean National Regulations

Component	CAS No	Act on Registration and	Authorised Chemicals	Existing Substances
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		Evaluation of Chemical Substances (K-REACH)		Subject to Registration
1-Hydroxy-7-Azabenzotriazole	39968-33-7	Not applicable	Not applicable	Not applicable

Component	CAS No	Chemical Control Act - Toxic Chemicals	Chemical Control Act - Prohibited Chemicals	Chemical Control Act - Use Restricted Chemicals
1-Hydroxy-7-Azabenzotriazole	39968-33-7	Not applicable	Not applicable	Not applicable

Component	CAS No	Chemical Control Act - Accident Precaution Chemicals (% in mixtures)	Chemical Control Act - Accident Precaution Chemicals - Quantity limits Storage (% in mixtures)	Chemical Control Act - Accident Precaution Chemicals - Quantity limits Manufacture/Use (% in mixtures)
1-Hydroxy-7-Azabenzotriazole	39968-33-7	Not applicable	Not applicable	Not applicable

Component	CAS No	Waste Control Law	Ministry of Environment - CMR risk	Ministry of Environment - Critically Controlled Substance
1-Hydroxy-7-Azabenzotriazole	39968-33-7	Not applicable	Not applicable	Not applicable

Component	CAS No	ISHA - Harmful Agents Subject to Work Environment Monitoring	ISHA - Prohibited substances	ISHA - Substances requiring permission
1-Hydroxy-7-Azabenzotriazole	39968-33-7	Not applicable	Not applicable	Not applicable

Component	CAS No	ISHA - Substances subject to control	ISHA - Harmful Agents Requiring Health Examination	ISHA - Permissible Exposure Limits
1-Hydroxy-7-Azabenzotriazole	39968-33-7	Not applicable	Not applicable	Not applicable

Component	CAS No	ISHA - Subject to Process Safety Reports (minimum quantity)	ISHA - Threshold Limit Values (TLVs) Chemicals	ISHA - Special management materials
1-Hydroxy-7-Azabenzotriazole	39968-33-7	Not applicable	Not applicable	Not applicable

National Fire Association - Dangerous Substances Minimum quantity requiring a permit

Component	CAS No	Class 1 - Oxidising solids	Class 2 - Flammable solid	Class 3 - Spontaneously Combustible Substances and Dangerous Substances When Wet	Class 4 - Flammable liquids	Class 5 - Self-reactive substances	Class 6 - Oxidising liquids
1-Hydroxy-7-Azabenzotriazole	39968-33-7	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

Control Parameters

Component	CAS No	Korea	ACGIH - Biological Exposure Indices
1-Hydroxy-7-Azabenzotriazole	39968-33-7	Not listed	Not listed

US Management Information

OSHA - Occupational Safety and Health Administration

Not applicable

Component	CAS No	Specifically Regulated Chemicals	Highly Hazardous Chemicals
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CERCLA Not applicable

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Component	CAS No	CERCLA Extremely Hazardous Substances RQs	Hazardous Substances RQs	SARA 313 - Threshold Values %
1-Hydroxy-7-Azabenzotriazole	39968-33-7	Not applicable	Not applicable	Not applicable

GHS Classification - According to GB-CLP Regulations UK SI 2019/720 and UK SI 2020/1567

Danger.

H204 - Fire or projection hazard. H315 - Causes skin irritation. H318 - Causes serious eye damage.

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P280 - Wear protective gloves/protective clothing/eye protection/face protection. P370 + P372 + P380 + P373 - In case of fire: Explosion risk. Evacuate area. DO NOT fight fire when fire reaches explosives. P401 - Store in accordance with local regulations. P302 + P352 - IF ON SKIN: Wash with plenty of soap and water. P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310 - Immediately call a POISON CENTER or doctor/physician.

SECTION 16: OTHER INFORMATION

Legend

CAS - Chemical Abstracts Service

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

IECSC - Chinese Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

ENCS - Japanese Existing and New Chemical Substances

AICS - Australian Inventory of Chemical Substances

NZIoC - New Zealand Inventory of Chemicals

WEL - Workplace Exposure Limit

ACGIH - American Conference of Governmental Industrial Hygienists

RPE - Respiratory Protective Equipment

LC50 - Lethal Concentration 50%

POW - Partition coefficient Octanol:Water

TWA - Time Weighted Average

IARC - International Agency for Research on Cancer

LD50 - Lethal Dose 50%

EC50 - Effective Concentration 50%

ADR - European Agreement Concerning the International Carriage of Dangerous Goods by Road

IMO/IMDG - International Maritime Organization/International Maritime Dangerous Goods Code

OECD - Organisation for Economic Co-operation and Development

BCF - Bioconcentration factor

ICAO/IATA - International Civil Aviation Organization/International Air Transport Association

MARPOL - International Convention for the Prevention of Pollution from Ships

ATE - Acute Toxicity Estimate

VOC - (Volatile Organic Compound)

Key literature references and sources for data

<https://echa.europa.eu/information-on-chemicals>

Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

Training Advice

Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hygiene.

Use of personal protective equipment, covering appropriate selection, compatibility, breakthrough thresholds, care, maintenance, fit and standards.

First aid for chemical exposure, including the use of eye wash and safety showers.

Prepared By

Creation Date

Revision Date

Revision Number

Health, Safety and Environmental Department

03-Jul-2023

12-Jun-2024

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Revision Summary

New emergency telephone response service provider.

MOEL's Public Notice No. 2023-9 (Standards for Classification and Labeling of Chemical Substances and Safety Data Sheets)

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 Safety Data Sheet