# Thermo Fisher SCIENTIFIC

# SAFETY DATA SHEET

Page 1/7
Creation Date 22-Sep-2009
Revision Date 27-Apr-2024
Version 4

ALFAAA12581

# 4-Dimethylaminoazobenzene-4'-isothiocyanate

# SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

产品说明: 4-二甲氨基偶氮苯-4'-异硫氰酸酯

Product Description: 4-Dimethylaminoazobenzene-4'-isothiocyanate

Cat No.: A12581

**Synonyms** 4-Dimethylaminoazobenzene-4`-isothio-cyanate

 CAS No
 7612-98-8

 Molecular Formula
 C15H14N4S

**Supplier** Avocado Research Chemicals Ltd.

(Part of Thermo Fisher Scientific)

Shore Road, Heysham Lancashire, LA3 2XY, United Kingdom

Office Tel: +44 (0) 1524 850506 Office Fax: +44 (0) 1524 850608

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

E-mail address begel.sdsdesk@thermofisher.com

Recommended Use Laboratory chemicals.
Uses advised against No Information available

# **SECTION 2. HAZARD IDENTIFICATION**

Physical State Appearance Odor

Solid Red No information available

Emergency Overview Moisture sensitive.

### Classification of the substance or mixture

Based on available data, the classification criteria are not met

#### **Label Elements**

None required

#### Prevention

P261 - Avoid breathing dust/fume/gas/mist/vapors/spray

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

P271 - Use only outdoors or in a well-ventilated area

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

#### Response

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

P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing

Page 2/7 Revision Date 27-Apr-2024

# 4-Dimethylaminoazobenzene-4'-isothiocyanate

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

P312 - Call a POISON CENTER or doctor if you feel unwell

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

#### Storage

P403 + P233 - Store in a well-ventilated place. Keep container tightly closed

#### Disposal

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

# **Physical and Chemical Hazards**

None identified.

#### **Health Hazards**

The product contains no substances which at their given concentration are considered to be hazardous to health.

#### **Environmental hazards**

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

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

#### **SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Component	CAS No	Weight %		
4-[(4-Isothiocyanatophenyl)azo]-N,N-dimethylaniline	7612-98-8	100		

# **SECTION 4. FIRST AID MEASURES**

#### **Eve Contact**

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.

#### **Skin Contact**

Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately if symptoms occur.

#### Inhalation

Remove to fresh air. Get medical attention immediately if symptoms occur.

#### Ingestion

Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur.

#### Most important symptoms and effects

None reasonably foreseeable.

#### Self-Protection of the First Aider

No special precautions required.

# **Notes to Physician**

Treat symptomatically.

# **SECTION 5. FIRE-FIGHTING MEASURES**

# **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.

# **Specific Hazards Arising from the Chemical**

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

# **Protective Equipment and Precautions for Firefighters**

Page 3/7 Revision Date 27-Apr-2024

# 4-Dimethylaminoazobenzene-4'-isothiocyanate

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**

Ensure adequate ventilation. Use personal protective equipment as required. Avoid dust formation.

#### **Environmental Precautions**

Should not be released into the environment.

#### Methods for Containment and Clean Up

Sweep up and shovel into suitable containers for disposal. Avoid dust formation.

Refer to protective measures listed in Sections 8 and 13.

# **SECTION 7. HANDLING AND STORAGE**

#### Handling

Wear personal protective equipment/face protection. Ensure adequate ventilation. Avoid contact with skin, eyes or clothing. Avoid ingestion and inhalation. Avoid dust formation.

#### Storage

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

#### Specific Use(s)

Use in laboratories

# **SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

#### **Control Parameters**

#### Monitoring methods

BS EN 14042:2003 Title Identifier: Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents. MDHS14/3 General methods for sampling and gravimetric analysis of respirable and inhalable dust

# **Exposure Controls**

# **Engineering Measures**

None under normal use conditions. .

# Personal protective equipment

Eye Protection Wear safety glasses with side shields (or goggles) (European standard - EN 166)

Hand Protection Protective gloves

Glove material Nitrile rubber Neoprene Natural rubber PVC	Breakthrough time See manufacturers recommendations	Glove thickness	EU standard EN 374	Glove comments (minimum requirement)	
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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 compatability, Dexterity, Operational conditions, User susceptibility, e.g.

Page 4/7 Revision Date 27-Apr-2024

# 4-Dimethylaminoazobenzene-4'-isothiocyanate

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.

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.

Large scale/emergency use Use a NIOSH/MSHA or European Standard EN 136 approved respirator if exposure limits

are exceeded or if irritation or other symptoms are experienced

Recommended Filter type: Particle filter

Small scale/Laboratory use Maintain adequate ventilation

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

**Environmental exposure controls** No information available.

# **SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

**Appearance** Red **Physical State** Solid

Odor No information available **Odor Threshold** No data available No information available рΗ

Melting Point/Range 167.00 - 171.00 °C / 332.6 - 339.8

No data available **Softening Point Boiling Point/Range** No information available

**Flash Point** No information available Method - No information available

**Evaporation Rate** Not applicable Solid

No information available Flammability (solid, gas)

No data available **Explosion Limits** 

**Vapor Pressure** No data available

**Vapor Density** Not applicable

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)

No data available **Autoignition Temperature Decomposition Temperature** No data available **Viscosity** Not applicable

**Explosive Properties** No information available

**Oxidizing Properties** No information available

Molecular Formula C15H14N4S **Molecular Weight** 282.35

# **SECTION 10. STABILITY AND REACTIVITY**

Solid

Solid

Stability Stable under normal conditions. Moisture sensitive.

**Hazardous Reactions** None under normal processing.

ALFAAA12581

# SAFETY DATA SHEET

Page 5/7 Revision Date 27-Apr-2024

4-Dimethylaminoazobenzene-4'-isothiocyanate

**Hazardous Polymerization** No information available.

**Conditions to Avoid** None known.

Materials to avoid Oxidizing agent.

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

**SECTION 11. TOXICOLOGICAL INFORMATION** 

**Product Information** No acute toxicity information is available for this product

(a) acute toxicity;

(b) skin corrosion/irritation; Based on available data, the classification criteria are not met

(c) serious eye damage/irritation; Based on available data, the classification criteria are not met

(d) respiratory or skin sensitization;

Respiratory Skin

Based on available data, the classification criteria are not met Based on available data, the classification criteria are not met

(e) germ cell mutagenicity; Based on available data, the classification criteria are not met

Based on available data, the classification criteria are not met (f) carcinogenicity;

There are no known carcinogenic chemicals in this product

(g) reproductive toxicity; Based on available data, the classification criteria are not met

(h) STOT-single exposure; Based on available data, the classification criteria are not met

(i) STOT-repeated exposure; Based on available data, the classification criteria are not met

**Target Organs** None known.

Based on available data, the classification criteria are not met (j) aspiration hazard;

Symptoms / effects,both acute and No information available

delayed

# **SECTION 12. ECOLOGICAL INFORMATION**

Contains no substances known to be hazardous to the environment or that are not **Ecotoxicity effects** 

degradable in waste water treatment plants.

Persistence and Degradability No information available

No information available **Bioaccumulative Potential** 

Page 6/7 Revision Date 27-Apr-2024

4-Dimethylaminoazobenzene-4'-isothiocyanate

Mobility in soil No information available

**Endocrine Disruptor Information Persistent Organic Pollutant Ozone Depletion Potential** 

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

This product does not contain any known or suspected substance

# **SECTION 13. DISPOSAL CONSIDERATIONS**

Waste from Residues/Unused

**Products** 

Chemical waste generators must determine whether a discarded chemical is classified as a

hazardous waste. Consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

**Contaminated Packaging** 

Empty remaining contents. Dispose of in accordance with local regulations. Do not re-use

empty containers.

Other Information

Waste codes should be assigned by the user based on the application for which the product

was used.

# **SECTION 14. TRANSPORT INFORMATION**

Not Regulated Road and Rail Transport

IMDG/IMO Not regulated

IATA Not regulated

**Special Precautions for User** No special precautions required

# **SECTION 15. REGULATORY INFORMATION**

#### International Inventories

X = listed, China (IECSC), Europe (EINECS/ELINCS/NLP), U.S.A. (TSCA), Canada (DSL/NDSL), Philippines (PICCS), Japan (ENCS), Japan (ISHL), Australia (AICS), Korea (KECL).

Component	The Inventory of Hazardous Chemicals (2015 Edition)	goods GB	TCSI	IECSC	EINECS	TSCA	DSL	PICCS	ENCS	ISHL	AICS	KECL
4-[(4-Isothiocyanatoph enyl)azo]-N,N-dimethyl aniline		-	Х	Х	231-521-3	-	-	-	-		Х	-

# **National Regulations**

# **SECTION 16. OTHER INFORMATION**

**Prepared By** Health, Safety and Environmental Department

**Creation Date** 22-Sep-2009

Page 7/7 Revision Date 27-Apr-2024

# 4-Dimethylaminoazobenzene-4'-isothiocyanate

**Revision Date** 27-Apr-2024

**Revision Summary** New emergency telephone response service provider.

**Training Advice** 

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

# Legend

**CAS** - Chemical Abstracts Service

EINECS/ELINCS - European Inventory of Existing Commercial Chemical DSL/NDSL - Canadian Domestic Substances List/Non-Domestic 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

WEL - Workplace Exposure Limit

**ACGIH** - American Conference of Governmental Industrial Hygienists

**DNEL** - Derived No Effect Level

RPE - Respiratory Protective Equipment LC50 - Lethal Concentration 50%

NOEC - No Observed Effect Concentration PBT - Persistent, Bioaccumulative, Toxic

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

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

**OECD** - Organisation for Economic Co-operation and Development

**BCF** - Bioconcentration factor

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

Substances List

**ENCS** - Japanese Existing and New Chemical Substances AICS - Australian Inventory of Chemical Substances

NZIoC - New Zealand Inventory of Chemicals

TWA - Time Weighted Average

IARC - International Agency for Research on Cancer

PNEC - Predicted No Effect Concentration

LD50 - Lethal Dose 50%

EC50 - Effective Concentration 50% POW - Partition coefficient Octanol:Water vPvB - very Persistent, very Bioaccumulative

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

MARPOL - International Convention for the Prevention of Pollution from Shins

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

#### **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**