

SAFETY DATA SHEET

Creation Date 28-Oct-2009

Revision Date 18-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	Dansyl chloride
Cat No. :	AC115850000; AC115850010; AC115850050; AC115850250
CAS No	605-65-2
Synonyms	5-Dimethylamino-1-naphthalenesulfonyl chloride
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 4
Skin Corrosion/Irritation	Category 1 B
Serious Eye Damage/Eye Irritation	Category 1
Specific target organ toxicity (single exposure)	Category 3
Target Organs - Respiratory system.	

Label Elements

Signal Word

Danger

Hazard Statements

Harmful if swallowed
Causes severe skin burns and eye damage
May cause respiratory irritation

**Precautionary Statements****Prevention**

Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Do not breathe dust/fume/gas/mist/vapors/spray
Do not get in eyes, on skin, or on clothing
Wear protective gloves/protective clothing/eye protection/face protection
Use only outdoors or in a well-ventilated area

Response

Immediately call a POISON CENTER or doctor

Inhalation

IF INHALED: Remove person to fresh air and keep comfortable for breathing

Skin

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower
Take off contaminated clothing and wash before reuse
Immediately call a POISON CENTER or doctor

Eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
Immediately call a POISON CENTER or doctor/physician

Ingestion

Rinse mouth

Do NOT induce vomiting

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell

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)

None identified

Hazards classified under paragraph (d)(1)(ii) of 1910.1200**Hazards resulting from a reaction with other chemicals under normal conditions of use**

Contact with water liberates toxic gas.

3. Composition/information on Ingredients

Component	CAS No	Weight %
1-Naphthalenesulfonyl chloride, 5-(dimethylamino)-	605-65-2	<=100

4. First-aid measures

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.
Inhalation	Remove to fresh air. 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. Immediate medical attention is required. If not breathing, give artificial respiration.
Ingestion	Do NOT induce vomiting. Call a physician or poison control center immediately.
Most important symptoms and effects	Causes burns by all exposure routes. 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
Notes to Physician	Treat symptomatically

5. Fire-fighting measures

Suitable Extinguishing Media CO₂, dry chemical, dry sand, alcohol-resistant foam.

Unsuitable Extinguishing Media DO NOT USE WATER

Flash Point No information available
Method - No information available

Autoignition Temperature Not applicable

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

Reacts violently with water. Contact with water liberates toxic gas.

Hazardous Combustion Products

Carbon monoxide (CO). Carbon dioxide (CO₂). Nitrogen oxides (NO_x). Sulfur oxides. Chlorine. Hydrogen chloride gas.

Protective Equipment and Precautions for Firefighters

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

NFPA	Health	Flammability	Instability	Physical hazards
	3	1	2	W

6. Accidental release measures

Personal Precautions Use personal protective equipment as required. Ensure adequate ventilation. Avoid dust formation. Do not get in eyes, on skin, or on clothing.

Environmental Precautions Should not be released into the environment. See Section 12 for additional Ecological Information.

Methods for Containment and Clean Up Sweep up and shovel into suitable containers for disposal. Avoid dust formation. Do not expose spill to water.

7. Handling and Storage

Handling Use only under a chemical fume hood. Wear personal protective equipment/face protection. Do not get in eyes, on skin, or on clothing. Avoid dust formation. Do not breathe dust. Do not allow contact with water. Do not get water inside containers.

Storage. Keep refrigerated. Keep containers tightly closed in a dry, cool and well-ventilated place. Corrosives area. Incompatible Materials. Strong oxidizing agents. Strong bases. Amines.

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 Use only under a chemical fume hood. Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

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 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.

Recommended Filter type: Particulates filter conforming to EN 143.

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

9. Physical and chemical properties

Appearance

Physical State Powder Solid

Color Yellow

Odor Odorless

Odor Threshold No information available

Property

Melting Point/Range 71 - 74 °C / 159.8 - 165.2 °F

Softening Point No data available

Boiling Point/Range No information available

Flash Point No information available

Flammability (liquid) Not applicable

Flammability (solid,gas) No information available

Explosion Limits No data available

Autoignition Temperature Not applicable

Decomposition Temperature No data available

pH No information available

Viscosity Not applicable

Water Solubility 10 g/L (20°C)

Solubility in other solvents No information available

Partition Coefficient (n-octanol/water)

Vapor Pressure No information available

Density / Specific Gravity No data available

Remarks

• Method

Method - No information available

Solid

Bulk Density	No data available	
Vapor Density	Not applicable	
Particle characteristics	No data available	Solid

Other Information

Molecular Formula	C12 H12 Cl N O2 S
Molecular Weight	269.75
Evaporation Rate	Not applicable - Solid

10. Stability and reactivity

Reactive Hazard	Yes
Stability	Reacts violently with water.
Conditions to Avoid	Avoid dust formation. Exposure to moist air or water. Excess heat.
Incompatible Materials	Strong oxidizing agents, Strong bases, Amines
Hazardous Decomposition Products	Carbon monoxide (CO), Carbon dioxide (CO ₂), Nitrogen oxides (NO _x), Sulfur oxides, Chlorine, Hydrogen chloride gas
Hazardous Polymerization	Hazardous polymerization does not occur.
Hazardous Reactions	Contact with water liberates toxic gas.

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

Inhalation	Causes burns. May be harmful if inhaled.
Ingestion	Harmful if swallowed. Causes burns.
Eyes	Causes burns.
Skin	Causes burns. May be harmful in contact with skin.

Toxicology data for the components

Toxicologically Synergistic Products	No information available
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(b) skin corrosion/irritation; Category 1 B

(c) serious eye damage/irritation; Category 1

(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
1-Naphthalenesulfonyl	605-65-2	Not listed				

chloride, 5-(dimethylamino)-						
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(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; Not applicable
Solid

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

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.

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 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 UN3261
Proper Shipping Name Corrosive solid, acidic, organic, n.o.s.
Technical Shipping Name Dansyl chloride
Hazard Class 8
Packing Group II

TDG

UN-No UN3261
Proper Shipping Name Corrosive solid, acidic, organic, n.o.s.
Technical Shipping Name Dansyl chloride
Hazard Class 8
Packing Group II

IATA

UN-No	UN3261
Proper Shipping Name	Corrosive solid, acidic, organic, n.o.s.
Technical Shipping Name	Dansyl chloride
Hazard Class	8
Packing Group	II
IMDG/IMO	
UN-No	UN3261
Proper Shipping Name	Corrosive solid, acidic, organic, n.o.s.
Technical Shipping Name	Dansyl chloride
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
1-Naphthalenesulfonyl chloride, 5-(dimethylamino)-	605-65-2	X	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
1-Naphthalenesulfonyl chloride, 5-(dimethylamino)-	605-65-2	X	-	210-092-6	X	-		X	-	-

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)
1-Naphthalenesulfonyl chloride, 5-(dimethylamino)-	605-65-2	-	-	-

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)
1-Naphthalenesulfonyl chloride, 5-(dimethylamino)-	605-65-2	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)
1-Naphthalenesulfonyl chloride, 5-(dimethylamino)-	605-65-2	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	28-Oct-2009
Revision Date	18-Dec-2025
Print Date	18-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