

SAFETY DATA SHEET

NAME OF PRODUCT Danthron

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product/Catalog Number(s):

60-109	500 µg/vial
60-109.3	300 µg/vial
60-122	500 mg/mL, 1 mL/vial

Product name: Danthron

Synonyms: Danthron; Danthron BP; Altan; Diaquone; Chrysazine;
Dantron; Dionone; 1,8-dihydroxyanthraquinone

Manufacturer: Molecular Toxicology Inc.

Address: 157 Industrial Park Drive, Boone, North Carolina, 28607

Phone: (1) 828 264 9099 (8:30 – 17:00 EST)

Fax: 828 264 0103

Emergency contact (Chemtrec): Contact 1800-424-9300 (USA) or 703 527 3887 (International) at other times
Email: chemtrec@chemtrec.com; <http://www.chemtrec.com/>

Recommended use: Laboratory, For Research Only

Restrictions on use: Not for clinical use

SECTION 2. HAZARDS IDENTIFICATION

Classification of the substance or mixture per GSH and EU Directive 1272/2008



Warning

Physical hazards

None known

Health hazards

Carcinogenicity (Category 2)

Environmental hazards

See eco-toxicity section 12.

Labelling

Hazard Statements

H351 Suspected of causing cancer

Precautionary Statements

P203 Obtain, read and follow all safety instructions before use.

P280 Wear protective gloves, clothing, eye and face protection

P318 If exposed or concerned, get medical advice.

P405 Store locked up

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

Other hazards

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SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance

Component	Purpose	CAS-No	EC-No.	Weight %
Danthron C ₁₄ H ₈ O ₄	Biochemical used in the study of carcinogenesis	117-10-2	204-173-5	100%

SECTION 4. FIRST AID MEASURES

Description of first aid measures

Eye Contact	Rinse eyes and under eyelids immediately with plenty of water. Consult a doctor.
Skin Contact	Wash off immediately with plenty of soap and water and rinse thoroughly. Seek immediate medical advice.
Ingestion	Rinse mouth with plenty of water. Never give anything by mouth to an unconscious person. Consult a physician.
Inhalation	Move to fresh air. If required, provide artificial respiration. Get medical attention for any breathing difficulties.
Protection of first-aiders	Not required

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. In the event that symptoms develop or persists, obtain medical attention.

Most important symptoms and effects, both acute and delayed

Acute: Irritation in contact with eyes and skin. Irritating if inhaled.

Chronic: May be carcinogenic - duration and level of exposure dependent.

Indication of any immediate medical attention and special treatment needed

Seek medical attention if ingested or if breathing difficulties are observed.

SECTION 5. FIREFIGHTING MEASURES

Extinguishing media

May be combustible at high temperatures. Use media suitable for extinguishing surrounding fire (carbon dioxide, extinguishing powder or water spray). Fight larger fires with water spray or alcohol resistant foam.

Special hazards arising from the substance or mixture

Hazardous thermal decomposition products: Carbon dioxide, carbon monoxide, nitrogen oxides.

Advice for firefighters

Fire-fighters should wear fully protective impervious protective equipment and self-contained breathing apparatus (SCBA).

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Avoid dust formation. Avoid breathing vapors, mist, or gas. Ensure adequate ventilation. Evacuate personnel to safe area. Use personal protective equipment.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not release material into drains.

Methods and material for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

Reference to other sections

Refer to Sections 7 for information on safe handling

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Do not breathe dust/spray/mist. Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

Conditions for safe storage, including any incompatibilities

Storage - Store according to product packaging, tightly sealed. Keep in a dry, well-ventilated place.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure limits

Contains no substances with occupational exposure limit values.

Monitoring methods

N/A

Exposure controls

Engineering Measures

Ensure adequate ventilation, especially in confined areas

Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimize 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: Safety glasses with side-shields conforming to EN166. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Hand Protection

Chemical resistant gloves; nitrile rubber recommended. Inspect gloves before use.

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Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves (refer to manufacturer/supplier for information). If material is solubilized, account for solvent in glove assessment.

Remove gloves with care avoiding skin contamination.

Skin and body protection

Impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory Protection

Exposure risk assessment must be performed by a qualified Industrial Hygienist. Where risk assessment shows air purifying respirators are appropriate use a dust mask type N95 (US) or type P1 (EN 143) respirator. NIOSH approved Respiratory Protection is required by EPA. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hygiene Measures - Handle in accordance with good industrial hygiene and safety practice. Wash hands, forearms and face thoroughly after handling chemical products, before smoking, eating and using lavatory, and at the end of the work period. Employ techniques to avoid contamination of clothing. Keep away from food, beverages, and feed.

Environmental exposure controls – Properly operating chemical fume hood designed for hazardous chemicals.

Exposure limits

Permissible Exposure Limits and Threshold Limit Values not specified by OSHA.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Powder
Auto-ignition temperature	no data available
Boiling point	No data available
Decomposition temperature	no data available
Flammable limits in air	no data available
Flash point	no data available
Formula	C ₂₁ H ₁₆
Melting point	192°C
Molecular weight	240.21 g/mol
Odor threshold	Odorless
Osmolality	no data available
Partition Coefficient	No data available
pH	no data available
Relative Density	No data available
Solubility in water	Slightly soluble
Specific gravity	no data available

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Vapor density no data available
Vapor pressure no data available
Viscosity no data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity

Not reactive.

Chemical stability

Stable under normal conditions. Decomposition will not occur if used and stored appropriately.

Possibility of hazardous reactions

No hazardous reactions known.

Conditions to avoid

Dust formation. Excess heat.

Incompatible materials

Strong oxidizing agents, strong bases, acid chlorides, acid anhydrides

Hazardous decomposition products

No data available

SECTION 11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute toxicity

LD₅₀ oral, mouse >7,000 mg/kg

Skin corrosion/irritation

no data available

Serious eye damage/eye irritation

Eyes, rabbit mild eye irritation, 24 hours

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

No data available

Carcinogenicity

This product is or contains a component that has been reported to be possibly carcinogenic according to IARC, ACGIH, NTP, and OSHA classifications

IARC: 2B- Group 2B: Possibly carcinogenic to humans (Danthron)

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

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NTP: Reasonably anticipated to be a human carcinogen (Danthron)

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

no data available

Teratogenicity

no data available

Specific target organ toxicity - single exposure (Globally Harmonized System)

no data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System)

Ingestion may cause cancer in humans, tumors in the gastrointestinal tract, liver based on animal studies.

Aspiration hazard

no data available

Potential health effects

Inhalation Irritant

Ingestion May cause irritation of the digestive tract. May affect behavior, sense organs, and respiration

Skin Irritant

Eyes Irritant

Synergistic effects

no data available

Additional toxicological information:

RTECS: CB6650000

SECTION 12. ECOLOGICAL INFORMATION

Toxicity

Aquatic ecotoxicity: No data available

Persistence and degradability: No data available.

Behavior in environment systems:

Bioaccumulative potential: No data available.

Mobility in soil: No data available.

Additional ecological information: No data available

General notes:

Do not allow undiluted product or large quantities of it to reach ground water, water course, or sewage system.

Results of PBT and vPvB Assessment

PBT: Not applicable

vPvB: Not applicable

Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

SECTION 13. DISPOSAL CONSIDERATIONS

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging

Dispose of as unused product.

SECTION 14. TRANSPORT INFORMATION

DOT (US) regulations:

Not regulated

IMDG

Not regulated

IATA

Not regulated

Further information

None available

SECTION 15. REGULATORY INFORMATION

SARA 302 Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

Chronic Health Hazard

Massachusetts Right To Know Components

No components are subject to the Massachusetts Right To Know Act

Pennsylvania Right To Know Components

117-10-2 Danthron

New Jersey Right To Know Components

117-10-2 Danthron

California Prop. 65 Components

WARNING! This product contains a chemical known to State of California to cause cancer

117-10-2 Danthron

SECTION 16. OTHER INFORMATION

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Molecular Toxicology, Inc. shall not be held liable for any damage resulting from handling or from contact with the above product. See www.moltox.com and/or the invoice or packing slip for additional terms and conditions of sale.