



Material Safety Data Sheet Congo Red Indicator, 0.1% Aqueous

Section 1 - Chemical Product and Company Identification

MSDS Name:

Congo Red Indicator, 0.1% Aqueous

Catalog Numbers:

LC13360

Synonyms:

Cotton red L; direct red 28; trisulfon congo red; C.I. 22120 sodium tetrazodiphenylnaphthionate.

Company Identification:

LabChem Inc
200 William Pitt Way
Pittsburgh, PA 15238

Company Phone Number:

(412) 826-5230

Emergency Phone Number:

(800) 424-9300

CHEMTREC Phone Number:

(800) 424-9300 or
011-703-527-3887

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name:	Percent
7732-18-5	Water	balance
573-58-0	Congo red	0.1

Section 3 - Hazards Identification

Emergency Overview

Appearance: Clear, red solution**Caution!** Causes eye irritation. May cause irritation to skin and respiratory tract. Possible risk of harm to the unborn child. May cause cancer. May cause central nervous system effects.**Target Organs:** Central nervous system, bladder.

Potential Health Effects

Eye:

Causes eye irritation. May cause lacrimation (tearing), blurred vision, and photophobia. May cause chemical conjunctivitis and corneal damage.

Skin:

May cause skin irritation. May cause skin sensitization, an allergic reaction, which becomes evident upon re-exposure to this material. May cause skin irritation and possible burns.

Ingestion:

May cause gastrointestinal irritation with nausea, vomiting and diarrhea. May cause nausea, vomiting, abdominal pain, and increased salivation.



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Inhalation:

May cause respiratory tract irritation. Olfactory fatigue may occur. Can produce delayed pulmonary edema.

Chronic:

Congo red is a chemical derivative of benzidine, a known human carcinogen. This substance has caused adverse reproductive and fetal effects in laboratory animals. The primary target organs for carcinogenicity induced by benzidine vary with species. Rats, mice, and hamsters develop liver and mammary tumors. Dogs and humans develop increased incidences of urinary bladder cancer.

Section 4 - First Aid Measures

Eyes:

Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids until no evidence of chemical remains. Get medical aid at once.

Skin:

Flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid.

Ingestion:

Get medical aid at once. If victim is conscious, give 2-4 glasses of water and induce vomiting.

Inhalation:

Give artificial respiration if necessary. Move victim to fresh air. Get medical aid. Keep victim warm and at rest.

Notes to Physician:

Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information:

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Move container if possible; avoid breathing vapors or dust.

Extinguishing Media:

For small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam.

Autoignition Temperature:

No information found.

Flash Point:

No information found.

NFPA Rating:

CAS# 7732-18-5: Health- 0, Flammability- 0, Instability- 0.

CAS# 573-58-0: Health- 2, Flammability- 2, Instability- 0.

Explosion Limits:

Lower: n/a Upper: n/a

Section 6 - Accidental Release Measures



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General Information:

Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks:

Absorb spills with absorbent (vermiculite, sand, fuller's earth), and place in plastic bags for later disposal.

Section 7 - Handling and Storage

Handling:

Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Keep away from heat, sparks and flame. Avoid ingestion and inhalation.

Storage:

Store capped at room temperature. Protect from heat and incompatibles.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits:

Chemical Name:	ACGIH	NIOSH	OSHA
Water	None of the components are on this list.	None of the components are on this list.	None of the components are on this list.
Congo red	None of the components are on this list.	None of the components are on this list.	None of the components are on this list.

OSHA Vacated PELs:

None

Personal Protective Equipment

Eyes:

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:

Wear appropriate protective gloves to prevent skin exposure.

Clothing:

Wear appropriate protective clothing to prevent skin exposure.

Respirators:

A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

Section 9 - Physical and Chemical Properties



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Physical State:	Clear liquid
Color:	Red
Odor:	Odorless
pH:	8-9.5
Vapor Pressure:	14mm Hg @20°C
Vapor Density:	> air
Evaporation Rate:	< ether
Viscosity:	No information found.
Boiling Point:	>212°F (>100°C)
Freezing/Melting Point:	<32°F (<0°C)
Decomposition Temperature:	No information found.
Solubility in water:	Soluble.
Specific Gravity/Density:	1.0
Molecular Formula:	No information found.
Molecular Weight:	No information found.

Section 10 - Stability and Reactivity

Chemical Stability:

Stable under normal temperatures and pressures.

Conditions to Avoid:

Incompatible materials, excess heat.

Incompatibilities with Other Materials:

Strong oxidizing agents, strong acids.

Hazardous Decomposition Products:

Oxides of nitrogen, oxides of sulfur, oxides of carbon.

Hazardous Polymerization:

Has not been reported

Section 11 - Toxicological Information

RTECS:

CAS# 7732-18-5: ZC0110000.

CAS# 573-58-0: QK1400000.

LD50/LC50:

CAS# 7732-18-5:

Oral, rat: LD50 = >90 mL/kg.

CAS# 573-58-0:

Draize test, rabbit, eye: 100 mg Moderate

Oral, rat: LD50 = 15200 mg/kg.

Carcinogenicity:

CAS# 7732-18-5: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.

CAS# 573-58-0: Listed as a carcinogen under Benzidine based dyes by IARC (Group 2A), NTP (Known carcinogen), and California (carcinogen).

Epidemiology:

A strong association relating human exposure to benzidine based dyes with the subsequent development of bladder tumors was presented after a case-control mortality study of 200 bladder cancer patients in Japan. Patients were mostly kimono painters/dyers.



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Teratogenicity:

C.I. Direct Black 38, a benzidine-based dye, was evaluated for developmental toxicity. All dose levels caused a significant increase in the average % of malformed fetuses. Malformed centra were significantly increased at 200 mg/kg/day and above.

Reproductive:

In mice and rats, prenatal exposure to Congo red permanently reduces the number of germ cells in male and female offspring. In one study, the administration of benzidine to pregnant mice produced liver tumors in the offspring. Oral doses of benzidine-based dyes to pregnant mice on Day 8-12 of gestation altered testicular development & caused hypospermatogenesis during adulthood.

Mutagenicity:

See actual entry in RTECS for complete information.

Neurotoxicity:

No information found.

Section 12 - Ecological Information

No information found.

Section 13 - Disposal Considerations

Dispose of in accordance with Federal, State, and local regulations.

Section 14 - Transport Information

US DOT

Shipping Name: Not regulated.

Hazard Class:

UN Number:

Packing Group:

Section 15 - Regulatory Information

US Federal

TSCA:

CAS# 7732-18-5 is listed on the TSCA Inventory.

CAS# 573-58-0 is listed on the TSCA Inventory.

SARA Reportable Quantities (RQ):

None of the components are on this list.

CERCLA/SARA Section 313:

None of the components are on this list.

OSHA - Highly Hazardous:

None of the components are on this list.

US State

State Right to Know:

CAS# 573-58-0 can be found on the following state right to know lists: California, (listed as Benzidine based dyes), New Jersey, Minnesota, (listed as Benzidine based dyes).



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California Regulations:

WARNING: This product contains C.I. Direct Red 28, listed as 'Benzidine based dyes', a chemical known to the state of California to cause cancer.

European/International Regulations

Canadian DSL/NDSL:

CAS# 7732-18-5 is listed on Canada's DSL List.

CAS# 573-58-0 is listed on Canada's DSL List.

Canada Ingredient Disclosure List:

CAS# 7732-18-5 is not listed on Canada's Ingredient Disclosure List.

CAS# 573-58-0 is not listed on Canada's Ingredient Disclosure List.

Section 16 - Other Information

MSDS Creation Date: August 17, 1998

Revision Date: May 15, 2009

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