ISO9001 Certified Company

Material Safety Data Sheet
Congo Red

Section 1 - Chemical Product and Company Identification

MSDS Name:
Congo Red
Catalog Numbers:
LC13350
Synonyms:
C.I. Direct Red 28; Atlantic Congo Red; C.I. 22120; Diacotton Congo Red; Benzo Congo Red.
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
573-58-0	Congo Red	100

Section 3 - Hazards Identification

Emergency Overview

Appearance: *Dark red-brown solid.*
Warning! Causes eye irritation. May cause skin and respiratory tract irritation. Possible risk of harm to the unborn child. May cause cancer in humans. May cause central nervous system effects. May be combustible at high temperatures or in the presence of open flames or sparks.
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 changes in blood clotting, alterations of platelets and leukocytes, transient leukopenia, leukocytosis, somnolence, dyspnea, and chronic pulmonary edema.

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

Chronic:
This product 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:
In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical aid.

Skin:
In case of contact, flush skin with plenty of water. Remove contaminated clothing and shoes. Get medical aid if irritation develops and persists. Wash clothing before reuse.

Ingestion:
If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical aid.

Inhalation:
If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

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. This material in sufficient quantity and reduced particle size is capable of creating a dust explosion. May be combustible at high temperatures. May be flammable in the presence of open flames and sparks, heat, or oxidizing materials.

Extinguishing Media:
Contact professional fire fighters immediately. Cool containers with flooding quantities of water until well after fire is out. Use water spray, dry chemical, carbon dioxide, or appropriate foam.

Autoignition Temperature:
Not applicable.

Flash Point:
Not applicable.

NFPA Rating:
CAS# 573-58-0: (estimated) H-2; F-1; I-0

Explosion Limits:
Lower: n/a Upper: n/a

Section 6 - Accidental Release Measures

General Information:

Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks:

Vacuum or sweep up material and place into a suitable disposal container. Clean up spills immediately, observing precautions in the Protective Equipment section. Scoop up with a nonsparking tool, then place into a suitable container for disposal. Avoid generating dusty conditions. Remove all sources of ignition. Provide ventilation.

Section 7 - Handling and Storage

Handling:

Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Empty containers retain product residue and can be dangerous. Keep container tightly closed. Keep away from heat, sparks and flame. Avoid ingestion and inhalation. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames.

Storage:

Keep away from sources of ignition and strong oxidizers. Store in a cool, dry place. Keep containers tightly closed.

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
Congo Red	none listed	none listed	none listed

OSHA Vacated PELs:

Congo Red: No OSHA Vacated PELs are listed for this chemical.

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 gloves to prevent skin exposure.

Clothing:

Wear appropriate protective clothing to prevent skin exposure.

Respirators:

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.

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Section 9 - Physical and Chemical Properties

Physical State:	Solid
Color:	Dark red-brown
Odor:	Odorless
pH:	8-9.5 (aq soln)
Vapor Pressure:	Negligible
Vapor Density:	Not available
Evaporation Rate:	Negligible
Viscosity:	Not available
Boiling Point:	Not available
Freezing/Melting Point:	>360 C
Decomposition Temperature:	Not available
Solubility in water:	Soluble
Specific Gravity/Density:	Not available
Molecular Formula:	C32H22N6O6S2Na2
Molecular Weight:	696.67

Section 10 - Stability and Reactivity

Chemical Stability:

Stable at room temperature in closed containers under normal storage and handling conditions. Materials containing similar functional groups can decompose at elevated temperatures.

Conditions to Avoid:

Incompatible materials, ignition sources, dust generation, excess heat.

Incompatibilities with Other Materials:

Strong oxidizing agents, strong acids.

Hazardous Decomposition Products:

Carbon monoxide, oxides of nitrogen, oxides of sulfur, carbon dioxide.

Hazardous Polymerization:

Has not been reported.

Section 11 - Toxicological Information

RTECS:

CAS# 573-58-0: QK1400000

LD50/LC50:

CAS# 573-58-0:

Draize test, rabbit, eye: 100 mg Moderate;
Oral, rat: LD50 = 15200 mg/kg

Carcinogenicity:

CAS# 573-58-0:

ACGIH: Not listed.
California: Carcinogen, initial date 10/1/92 (listed as Benzidine based dyes).
NTP: Known carcinogen (listed as Benzidine based dyes).
IARC: Not listed.

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.

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 the dye Congo red, a benzidine-based dye, permanently reduces the number of germ cells in male and female offspring. In 1 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:
Congo Red is mutagenic for mammalian somatic cells.

Neurotoxicity:
No information found

Section 12 - Ecological Information

No information available.

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# 573-58-0 is listed on the TSCA inventory.

SARA Reportable Quantities (RQ):
None of the chemicals in this material have an RQ.

CERCLA/SARA Section 313:
No chemicals are reportable under Section 313.

OSHA - Highly Hazardous:
None of the chemicals in this product are considered highly hazardous by OSHA.

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).

California Regulations:

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

European/International Regulations

Canadian DSL/NDSL:

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

Canada Ingredient Disclosure List:

CAS# 573-58-0 is not listed on the Canadian Ingredient Disclosure List.

Section 16 - Other Information

MSDS Creation Date: October 5, 2007
Revision Date: November 1, 2010

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