

MATERIAL SAFETY DATA SHEET

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Version 1.6

Section 1 - Product and Company Information

Product Name ERYTHROSIN B, CERTIFIED
 Product Number 198269
 Brand SIAL

Company Sigma-Aldrich
 Address 3050 Spruce Street
 SAINT LOUIS MO 63103 US

Technical Phone: 800-325-5832
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Section 2 - Composition/Information on Ingredient

Substance Name	CAS #	SARA 313 No
ERYTHROSIN B	16423-68-0	No

Formula C₂₀H₆I₄Na₂O₅

Synonyms Aizen erythrosine * Aizen Food Red 3 * Calcocid erythrosine N * Canacert erythrosine BS * 9-(o-Carboxyphenyl)-6-hydroxy-2,4,5,7-tetraiodo-3H-xanthene-3-one disodium salt monohydrate * Cerven kyselá 51 (Czech) * Cerven potravinarska 14 (Czech) * C.I. 773 * C.I. 45430 * C.I. Acid Red 51 * C.I. Food Red 14 * Cilefa Pink B * D&C Red No. 3 * Dolkwal erythrosine * Dye FD and C Red No. 3 * E 127 * EBS * Edicol Supra Erythrosine A * Edicol Supra Erythrosin AS * Erythrosin * Erythrosin B * Erythrosin BS * Erythrosin B sodium salt * Erythrosine * Erythrosine B * Erythrosine 3B * Erythrosine B (biological stain) * Erythrosine B-FO (biological stain) * Erythrosine bluish * Erythrosine bluish (biological stain) * Erythrosine BS * Erythrosine Extra * Erythrosine Extra Bluish * Erythrosine Extra Conc. A Export * Erythrosine Extra Pure A * Erythrosine I * Erythrosine (indicator) * Erythrosine K-FO (biological stain) * Erythrosine Lake * Erythrosine sodium * Erythrosine TB * Erythrosine TB Extra * FD and C Red 3 * FDC Red 3 * FD&C Red No. 3 * FDC Red 3 dye * FD and C Red No. 3 * Food Color Red 3 * Food Dye Red 3 * Food Red 3 * Food Red No. 3 * Food Red 14 * Hexacert Red No. 3 * Hexacol erythrosine BS * LB-Rot 1 * Maple erythrosine * New Pink Bluish Geigy * 1427 Red * 1671 Red * Schultz No. 887 * Tetraiodofluorescein sodium salt * 2',4',5',7'-Tetraiodofluorescein disodium salt * 2,4,5,7-Tetraiodofluorescein disodium salt * Usacert Red No. 3

RTECS Number: LM5950000

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Harmful.
Harmful if swallowed.
Target organ(s): Thyroid.

HMIS RATING

HEALTH: 1*
FLAMMABILITY: 0
REACTIVITY: 1

NFPA RATING

HEALTH: 1
FLAMMABILITY: 0
REACTIVITY: 1

*additional chronic hazards present.

For additional information on toxicity, please refer to Section 11.

Section 4 - First Aid Measures

ORAL EXPOSURE

If swallowed, wash out mouth with water provided person is conscious. Call a physician.

INHALATION EXPOSURE

If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

DERMAL EXPOSURE

In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Call a physician.

EYE EXPOSURE

In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

Section 5 - Fire Fighting Measures

FLASH POINT

N/A

AUTOIGNITION TEMP

N/A

FLAMMABILITY

N/A

FIREFIGHTING

Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.
Specific Hazard(s): Emits toxic fumes under fire conditions.

Section 6 - Accidental Release Measures

PROCEDURE TO BE FOLLOWED IN CASE OF LEAK OR SPILL

Evacuate area.

PROCEDURE(S) OF PERSONAL PRECAUTION(S)

Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves.

METHODS FOR CLEANING UP

Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

Section 7 - Handling and Storage

HANDLING

User Exposure: Do not breathe dust. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

STORAGE

Suitable: Keep tightly closed.

SPECIAL REQUIREMENTS

Hygroscopic.

Section 8 - Exposure Controls / PPE

ENGINEERING CONTROLS

Safety shower and eye bath. Mechanical exhaust required.

PERSONAL PROTECTIVE EQUIPMENT

Respiratory: Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Where risk assessment shows air-purifying respirators are appropriate use a dust mask type N95 (US) or type P1 (EN 143) respirator.

Hand: Compatible chemical-resistant gloves.

Eye: Chemical safety goggles.

GENERAL HYGIENE MEASURES

Wash thoroughly after handling.

Section 9 - Physical/Chemical Properties

Appearance	Physical State: Solid	
Property	Value	At Temperature or Pressure
Molecular Weight	879.87 AMU	
pH	N/A	
BP/BP Range	N/A	
MP/MP Range	N/A	
Freezing Point	N/A	
Vapor Pressure	N/A	
Vapor Density	N/A	
Saturated Vapor Conc.	N/A	
SG/Density	N/A	
Bulk Density	N/A	
Odor Threshold	N/A	
Volatile%	N/A	
VOC Content	N/A	
Water Content	N/A	
Solvent Content	N/A	
Evaporation Rate	N/A	
Viscosity	N/A	
Surface Tension	N/A	

Partition Coefficient	Log Kow: 4.901
Decomposition Temp.	N/A
Flash Point	N/A
Explosion Limits	N/A
Flammability	N/A
Autoignition Temp	N/A
Refractive Index	N/A
Optical Rotation	N/A
Miscellaneous Data	N/A
Solubility	N/A

N/A = not available

Section 10 - Stability and Reactivity

STABILITY

Stable: Stable.

Conditions to Avoid: Moisture.

Materials to Avoid: Strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS

Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide, Hydrogen iodide.

HAZARDOUS POLYMERIZATION

Hazardous Polymerization: Will not occur

Section 11 - Toxicological Information

ROUTE OF EXPOSURE

Skin Contact: May cause skin irritation.

Skin Absorption: May be harmful if absorbed through the skin.

Eye Contact: May cause eye irritation.

Inhalation: May be harmful if inhaled. Material may be irritating to mucous membranes and upper respiratory tract.

Ingestion: Harmful if swallowed.

TARGET ORGAN(S) OR SYSTEM(S)

Thyroid.

SIGNS AND SYMPTOMS OF EXPOSURE

Large doses may cause thyroid dysfunction. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

TOXICITY DATA

Oral

Rat

1840 mg/kg

LD50

Remarks: Behavioral:Convulsions or effect on seizure threshold.

Intraperitoneal

Rat

300 MG/KG

LD50

Intravenous

Rat

200 MG/KG

LD50

Remarks: Behavioral:Convulsions or effect on seizure threshold.

Oral
Mouse
1264 mg/kg
LD50

Intravenous
Mouse
370 MG/KG
LD50

Intravenous
Rabbit
200 MG/KG
LD50

Oral
Gerbil
1930 mg/kg
LD50

Remarks: Behavioral:Convulsions or effect on seizure threshold.

CHRONIC EXPOSURE - CARCINOGEN

Species: Rat
Route of Application: Oral
Dose: 1798 GM/KG
Exposure Time: 2Y
Frequency: C
Result: Endocrine:Thyroid tumors. Tumorigenic:Neoplastic by RTECS criteria.

CHRONIC EXPOSURE - MUTAGEN

Species: Human
Dose: 500 MG/L
Cell Type: leukocyte
Mutation test: DNA inhibition

Species: Mouse
Dose: 120 MG/L (+S9)
Cell Type: lymphocyte
Mutation test: Mutation in microorganisms

Species: Mouse
Dose: 120 MG/L
Cell Type: lymphocyte
Mutation test: Mutation in mammalian somatic cells.

Species: Hamster
Dose: 300 MG/L
Cell Type: lung
Mutation test: Micronucleus test

Species: Hamster
Dose: 600 MG/L
Cell Type: fibroblast
Mutation test: Cytogenetic analysis

Species: Hamster
Dose: 1100 MG/L

Cell Type: lung
Mutation test: Cytogenetic analysis

CHRONIC EXPOSURE - REPRODUCTIVE HAZARD

Species: Rat
Dose: 482 GM/KG
Route of Application: Oral
Exposure Time: (MULTIGENERATION)
Result: Effects on Newborn: Growth statistics (e.g., reduced weight gain).

Section 12 - Ecological Information

No data available.

Section 13 - Disposal Considerations

APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION

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. Observe all federal, state, and local environmental regulations.

Section 14 - Transport Information

DOT

Proper Shipping Name: None
Non-Hazardous for Transport: This substance is considered to be non-hazardous for transport.

IATA

Non-Hazardous for Air Transport: Non-hazardous for air transport.

Section 15 - Regulatory Information

EU ADDITIONAL CLASSIFICATION

Symbol of Danger: Xn
Indication of Danger: Harmful.
R: 22
Risk Statements: Harmful if swallowed.
S: 36
Safety Statements: Wear suitable protective clothing.

US CLASSIFICATION AND LABEL TEXT

Indication of Danger: Harmful.
Risk Statements: Harmful if swallowed.
Safety Statements: Wear suitable protective clothing.
US Statements: Target organ(s): Thyroid.

UNITED STATES REGULATORY INFORMATION

SARA LISTED: No
TSCA INVENTORY ITEM: Yes

CANADA REGULATORY INFORMATION

WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.
DSL: Yes
NDSL: No

DISCLAIMER

For R&D use only. Not for drug, household or other uses.

WARRANTY

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 and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Inc., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. Copyright 2008 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.