SECTION 1. Identification

Product identifier

- Product number: 103170
- Product name: Eriochrome black T (C.I. 14645) indicator for complexometry
  ACS, Reag. Ph Eur
- CAS-No.: 1787-61-7

Relevant identified uses of the substance or mixture and uses advised against

Identified uses: Reagent for analysis, Chemical production

Details of the supplier of the safety data sheet

Company: EMD Millipore Corporation | 290 Concord Road, Billerica, MA 01821, United States of America | General Inquiries: +1-978-715-4321 | Monday to Friday, 9:00 AM to 4:00 PM Eastern Time (GMT-5)

Emergency telephone: 800-424-9300 CHEMTREC (USA)
+1-703-527-3887 CHEMTREC (International)
24 Hours/day; 7 Days/week

SECTION 2. Hazards identification

GHS Classification

Eye irritation, Category 2A, H319

For the full text of the H-Statements mentioned in this Section, see Section 16.

GHS-Labeling

Hazard pictograms

Signal Word
Warning

Hazard Statements
H319 Causes serious eye irritation.

Precautionary Statements
P264 Wash skin thoroughly after handling.
P280 Wear protective gloves/ eye protection/ face protection.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 If eye irritation persists: Get medical advice/ attention.

Other hazards
None known.

SECTION 3. Composition/information on ingredients
Formula \( \text{C}_{20}\text{H}_{12}\text{N}_{3}\text{NaO}_{7}\text{S (Hill)} \)
Molar mass 461.38 g/mol

Hazardous ingredients

\textbf{Chemical Name (Concentration)}

\textbf{CAS-No.}

\textit{Eriochrome black T (>= 90 \% - <= 100 \%)}

1787-61-7

Exact percentages are being withheld as a trade secret.

SECTION 4. First aid measures

\textbf{Description of first-aid measures}

\textit{Inhalation}
After inhalation: fresh air.

\textit{Skin contact}
After skin contact: wash off with plenty of water. Remove contaminated clothing.

\textit{Eye contact}
After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist.

\textit{Ingestion}
After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.

Never give anything by mouth to an unconscious person.

\textbf{Most important symptoms and effects, both acute and delayed}

irritant effects
The following applies to aromatic nitro compounds in general: systemic effect: methemoglobinemia with headache, cardiac dysrhythmias, drop in blood pressure, dyspnoea, and spasms; principal sign: cyanosis (blue discoloration of the blood).

\textbf{Indication of any immediate medical attention and special treatment needed}
No information available.

SECTION 5. Fire-fighting measures

\textbf{Extinguishing media}

\textit{Suitable extinguishing media}
Water, Carbon dioxide (CO2), Foam, Dry powder
Unsafe extinguishing media
For this substance/mixture no limitations of extinguishing agents are given.

Special hazards arising from the substance or mixture
Combustible.
Development of hazardous combustion gases or vapors possible in the event of fire.
Fire may cause evolution of:
Sulfur oxides, nitrogen oxides

Advice for firefighters
Special protective equipment for fire-fighters
Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by
keeping a safe distance or by wearing suitable protective clothing.

Further information
Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing
water from contaminating surface water or the ground water system.

SECTION 6. Accidental release measures
Personal precautions, protective equipment and emergency procedures
Advice for non-emergency personnel: Avoid substance contact. Avoid inhalation of dusts. Ensure
adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an
expert.

Advice for emergency responders: Protective equipment see section 8.

Environmental precautions
Do not empty into drains.

Methods and materials for containment and cleaning up
Cover drains. Collect, bind, and pump off spills.
Observe possible material restrictions (see sections 7 and 10).
Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

SECTION 7. Handling and storage
Precautions for safe handling
Observe label precautions.

Conditions for safe storage, including any incompatibilities
Tightly closed. Dry. Protected from light.
Store at +15°C to +25°C (+59°F to +77°F).

SECTION 8. Exposure controls/personal protection
Exposure limit(s)
Contains no substances with occupational exposure limit values.

Engineering measures
Technical measures and appropriate working operations should be given priority over the use of personal
protective equipment.
Individual protection measures
Protective clothing should be selected specifically for the workplace, depending on concentration and quantity of the hazardous substances handled. The chemical resistance of the protective equipment should be inquired at the respective supplier.

Hygiene measures
Change contaminated clothing. Application of skin-protective barrier cream recommended. Wash hands after working with substance.

Eye/face protection
Safety glasses

Hand protection
Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Other protective equipment:
protective clothing

Respiratory protection
required when dusts are generated.
Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

SECTION 9. Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>solid</td>
</tr>
<tr>
<td>Color</td>
<td>black</td>
</tr>
<tr>
<td>Odor</td>
<td>weak</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>No information available.</td>
</tr>
<tr>
<td>pH</td>
<td>ca. 3.7</td>
</tr>
<tr>
<td></td>
<td>at 10 g/l</td>
</tr>
<tr>
<td></td>
<td>68 °F (20 °C)</td>
</tr>
<tr>
<td>Melting point</td>
<td>No information available.</td>
</tr>
<tr>
<td>Boiling point</td>
<td>No information available.</td>
</tr>
<tr>
<td>Flash point</td>
<td>No information available.</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No information available.</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No information available.</td>
</tr>
<tr>
<td>Lower explosion limit</td>
<td>No information available.</td>
</tr>
<tr>
<td>Upper explosion limit</td>
<td>No information available.</td>
</tr>
</tbody>
</table>
Vapor pressure  No information available.
Relative vapor density  No information available.
Density  No information available.
Relative density  No information available.
Water solubility  50 g/l at 68 °F (20 °C)
Partition coefficient: n-octanol/water  log Pow: 1.78 (calculated)
(Lit.) Bioaccumulation is not expected.
Autoignition temperature  No information available.
Decomposition temperature  No information available.
Viscosity, dynamic  No information available.
Explosive properties  Not classified as explosive.
Oxidizing properties  none
Bulk density  ca.400 - 600 kg/m³

SECTION 10. Stability and reactivity

Reactivity
The following applies in general to flammable organic substances and mixtures: in correspondingly fine distribution, when whirled up a dust explosion potential may generally be assumed.

Chemical stability
Sensitivity to light
hygroscopic

Possibility of hazardous reactions
Violent reactions possible with:
Strong oxidizing agents

Conditions to avoid
no information available

Incompatible materials
no information available

Hazardous decomposition products
in the event of fire: See section 5.
SECTION 11. Toxicological information
Information on toxicological effects

*Likely route of exposure*
Eye contact, Skin contact, Ingestion

*Acute oral toxicity*
LD50 Rat: 17,590 mg/kg (RTECS)

Symptoms: Irritation of mucous membranes

*Acute inhalation toxicity*

Symptoms: Possible damages;, mucosal irritations

*Skin irritation*
Rabbit
Result: No irritation
(RTECS)

*Eye irritation*
Rabbit
Result: Eye irritation
(External MSDS)

Causes serious eye irritation.

*Genotoxicity in vitro*
Ames test
Salmonella typhimurium
Result: positive
(Lit.)

*Specific target organ systemic toxicity - single exposure*
The substance or mixture is not classified as specific target organ toxicant, single exposure.

*Specific target organ systemic toxicity - repeated exposure*
The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

*Aspiration hazard*
Regarding the available data the classification criteria are not fulfilled.

*Carcinogenicity*

IARC
No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

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

NTP
No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

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

Further information
The following applies to aromatic nitro compounds in general: systemic effect:
methemoglobinemia with headache, cardiac dysrhythmias, drop in blood pressure, dyspnoea, and spasms; principal sign: cyanosis (blue discoloration of the blood).
The following applies to azo dyes in general: azo dyes containing a carcinogenic aryl amine component are suspected of possessing a carcinogenic potential. It is therefore recommended that the substance be handled as if it possessed the properties of the basic amine.
Other dangerous properties can not be excluded.
Handle in accordance with good industrial hygiene and safety practice.

SECTION 12. Ecological information

Ecotoxicity
Toxicity to fish
LC50 Pimephales promelas (fathead minnow): 6 mg/l; 96 h (Lit.)

Toxicity to bacteria
EC50 Bacteria: 10 - 100 mg/l
OECD Test Guideline 209

Persistence and degradability
No information available.

Bioaccumulative potential
Partition coefficient: n-octanol/water
log Pow: 1.78
(calculated)
(Lit.) Bioaccumulation is not expected.

Mobility in soil
No information available.

Additional ecological information
Discharge into the environment must be avoided.

SECTION 13. Disposal considerations
The information presented only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. Disposal should be in accordance with applicable regional, national and local laws and regulations.
SECTION 14. Transport information

Land transport (DOT)
UN number UN 3077
Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (SODIUM 3-HYDROXY-4-((1-HYDROXY-2-NAPHTHYL)AZO)-7-NITRONAPHTHALENE-1-SULPHONATE)
Class 9
Packing group III
Environmentally hazardous --

Air transport (IATA)
UN number UN 3077
Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (SODIUM 3-HYDROXY-4-((1-HYDROXY-2-NAPHTHYL)AZO)-7-NITRONAPHTHALENE-1-SULPHONATE)
Class 9
Packing group III
Environmentally hazardous --
Special precautions for user no

Sea transport (IMDG)
UN number UN 3077
Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (SODIUM 3-HYDROXY-4-((1-HYDROXY-2-NAPHTHYL)AZO)-7-NITRONAPHTHALENE-1-SULPHONATE)
Class 9
Packing group III
Environmentally hazardous --
Special precautions for user yes
EmS F-A S-F

SECTION 15. Regulatory information

United States of America

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 302
No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
Clean Water Act
This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.
This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

DEA List I
Not listed

DEA List II
Not listed

US State Regulations
Massachusetts Right To Know
Remarks
No components are subject to the Massachusetts Right to Know Act.

California Prop 65 Components
This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

Notification status
TSCA: All components of the product are listed in the TSCA-inventory.

DSL: All components of this product are on the Canadian DSL.

KOREA: Not in compliance with the inventory

SECTION 16. Other information

Training advice
Provide adequate information, instruction and training for operators.

Labeling
Hazard pictograms

Signal Word
Warning

Hazard Statements
H319 Causes serious eye irritation.
H411 Toxic to aquatic life with long lasting effects.
Precautionary Statements
Prevention
P273 Avoid release to the environment.
Response
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Full text of H-Statements referred to under sections 2 and 3.
H319 Causes serious eye irritation.

Key or legend to abbreviations and acronyms used in the safety data sheet
Used abbreviations and acronyms can be looked up at www.wikipedia.org.

Revision Date 02/23/2015

The information contained herein is based on the present state of our knowledge. It characterizes the product with regard to appropriate safety precautions. It does not represent a warranty of any product properties and we assume no liability for any loss or injury which may result from the use of this information. Users should conduct their own investigations to determine the suitability of the information.

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