SAFETY DATA SHEET

1. Identification

Product Name: Methyl Red hydrochloride, reagent ACS
Cat No.: AC339320000; AC339320250; AC339321000
Synonyms: C.I. 13020; Acid Red 2; 2-4-(Dimethylamino)phenylazo!benzoic acid hydrochloride
Recommended Use: Laboratory chemicals.
Uses advised against: No Information available

2. Hazard(s) Identification

Classification:
Based on available data, the classification criteria are not met

Label Elements:
None required

Hazards not otherwise classified (HNOC):
None identified

3. Composition / information on ingredients

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benzoic acid, 2-[[4-(dimethylamino)phenylazo]-, monohydrochloride</td>
<td>63451-28-5</td>
<td>100</td>
</tr>
</tbody>
</table>

4. First-aid measures

Eye Contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Obtain medical attention.
Skin Contact: Wash off immediately with soap and plenty of water while removing all contaminated
clothes and shoes. Obtain medical attention.

Inhalation  Remove from exposure, lie down. Move to fresh air.

Ingestion  Clean mouth with water. Get medical attention.

Most important symptoms/effects  No information available.

Notes to Physician  Treat symptomatically

5. Fire-fighting measures

Suitable Extinguishing Media  Water spray. Carbon dioxide (CO\(_2\)). Dry chemical. chemical foam.

Unsuitable Extinguishing Media  No information available

Flash Point  No information available

Method -  No information available

Autoignition Temperature  No information available

Explosion Limits  No data available

Upper  No data available

Lower  No data available

Sensitivity to Mechanical Impact  No information available

Sensitivity to Static Discharge  No information available

Specific Hazards Arising from the Chemical

Keep product and empty container away from heat and sources of ignition.

Hazardous Combustion Products  Hydrogen chloride gas Nitrogen oxides (NO\(_x\)) Carbon monoxide (CO) Carbon dioxide (CO\(_2\))

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. Accidental release measures

Personal Precautions  Ensure adequate ventilation. Use personal protective equipment.

Environmental Precautions  See Section 12 for additional ecological information.

Methods for Containment and Clean Up  Sweep up or vacuum up spillage and collect in suitable container for disposal.

7. Handling and storage

Handling  Avoid contact with skin and eyes. Do not breathe dust. Do not breathe vapors or spray mist.

Storage  Keep in a dry, cool and well-ventilated place. Keep container tightly closed.

8. Exposure controls / personal protection

Exposure Guidelines  This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Engineering Measures  Ensure adequate ventilation, especially in confined areas.

Personal Protective Equipment
9. Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical State</td>
<td>Powder Solid</td>
</tr>
<tr>
<td>Appearance</td>
<td>Dark blue</td>
</tr>
<tr>
<td>Odor</td>
<td>Odorless</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>No information available</td>
</tr>
<tr>
<td>Melting Point/Range</td>
<td>175 ºC / 347 ºF</td>
</tr>
<tr>
<td>Boiling Point/Range</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>Flammability or explosive limits Upper</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability or explosive limits Lower</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>No information available</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>No information available</td>
</tr>
<tr>
<td>Relative Density</td>
<td>No information available</td>
</tr>
<tr>
<td>Solubility</td>
<td>No information available</td>
</tr>
<tr>
<td>Partition coefficient; n-octanol/water</td>
<td>No data available</td>
</tr>
<tr>
<td>Autoignition Temperature</td>
<td>No information available</td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>No information available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>No information available</td>
</tr>
<tr>
<td>Molecular Formula</td>
<td>C15 H15 N3 O2 . H Cl</td>
</tr>
<tr>
<td>Molecular Weight</td>
<td>305.76</td>
</tr>
</tbody>
</table>

10. Stability and reactivity

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reactive Hazard</td>
<td>None known, based on information available</td>
</tr>
<tr>
<td>Stability</td>
<td>Stable under normal conditions.</td>
</tr>
<tr>
<td>Conditions to Avoid</td>
<td>Keep away from open flames, hot surfaces and sources of ignition. Excess heat. Incompatible products.</td>
</tr>
<tr>
<td>Incompatible Materials</td>
<td>Strong oxidizing agents</td>
</tr>
<tr>
<td>Hazardous Decomposition Products</td>
<td>Hydrogen chloride gas, Nitrogen oxides (NOx), Carbon monoxide (CO), Carbon dioxide (CO₂)</td>
</tr>
<tr>
<td>Hazardous Polymerization</td>
<td>Hazardous polymerization does not occur.</td>
</tr>
<tr>
<td>Hazardous Reactions</td>
<td>None under normal processing.</td>
</tr>
</tbody>
</table>

11. Toxicological information

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Toxicity</td>
<td></td>
</tr>
</tbody>
</table>
Product Information
No acute toxicity information is available for this product

Component Information
Toxicologically Synergistic Products
No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation
No information available

Sensitization
No information available

Carcinogenicity
The table below indicates whether each agency has listed any ingredient as a carcinogen.

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>IARC</th>
<th>NTP</th>
<th>ACGIH</th>
<th>OSHA</th>
<th>Mexico</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benzoic acid, 2-[[4-(dimethylamino)phenyl]azo]-, monohydrochloride</td>
<td>63451-28-5</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
</tr>
</tbody>
</table>

Mutagenic Effects
No information available

Reproductive Effects
No information available.

Developmental Effects
No information available.

Teratogenicity
No information available.

STOT - single exposure
None known

STOT - repeated exposure
None known

Aspiration hazard
No information available

Symptoms / effects, both acute and delayed
No information available

Endocrine Disruptor Information
No information available

Other Adverse Effects
The toxicological properties have not been fully investigated.

12. Ecological information

Ecotoxicity
Do not empty into drains.

Persistence and Degradability
No information available

Bioaccumulation/ Accumulation
No information available.

Mobility
No information available.

13. Disposal considerations

Waste Disposal Methods
Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

14. Transport information

DOT
Not regulated

TDG
Not regulated

IATA
Not regulated

IMDG/IMO
Not regulated

15. Regulatory information

International Inventories
<table>
<thead>
<tr>
<th>Component</th>
<th>TSCA</th>
<th>DSL</th>
<th>NDSL</th>
<th>EINECS</th>
<th>ELINCS</th>
<th>NLP</th>
<th>PICCS</th>
<th>ENCS</th>
<th>AICS</th>
<th>IECSC</th>
<th>KECL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benzoic acid, 2-[(4-(dimethylamino)phenyl)azo]-, monohydrochloride</td>
<td>-</td>
<td>X</td>
<td>-</td>
<td>264-190-9</td>
<td>-</td>
<td>-</td>
<td>X</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Legend:
- Listed
- Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA.
- Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.
- Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.
- Indicates a commenced PMN substance
- Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.
- Indicates a substance that is identified in a proposed or final Significant New Use Rule
- Indicates a substance that is the subject of a Section 4 test rule under TSCA.
- Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B).
- Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.
- Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

**U.S. Federal Regulations**

- **TSCA 12(b)** Not applicable
- **SARA 313** Not applicable

**SARA 311/312 Hazardous Categorization**

- **Acute Health Hazard** No
- **Chronic Health Hazard** No
- **Fire Hazard** No
- **Sudden Release of Pressure Hazard** No
- **Reactive Hazard** No

**Clean Water Act** Not applicable

**Clean Air Act** Not applicable

**OSHA** Occupational Safety and Health Administration Not applicable

**CERCLA** Not applicable

**California Proposition 65** This product does not contain any Proposition 65 chemicals

**State Right-to-Know** Not applicable

**U.S. Department of Transportation**

- **Reportable Quantity (RQ):** N
- **DOT Marine Pollutant** N
- **DOT Severe Marine Pollutant** N

**U.S. Department of Homeland Security**

This product does not contain any DHS chemicals.

**Other International Regulations**

**Mexico - Grade** No information available

**Canada**

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and...
the MSDS contains all the information required by the CPR

WHMIS Hazard Class: Non-controlled

16. Other information

Prepared By: Regulatory Affairs
Thermo Fisher Scientific
Email: EMSDS.RA@thermofisher.com

Revision Date: 10-Feb-2015
Print Date: 10-Feb-2015
Revision Summary: This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 CFR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS)

Disclaimer
The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of SDS