1. PRODUCT AND COMPANY IDENTIFICATION

**Product Identifier**

**Product Description:** FerroZine iron reagent, hydrate

**Cat No.**

410570000; 410570050

**Synonyms**

3-(2-Pyridyl)-5,6-diphenyl-1,2,4-triazine-4`,4``-disulfonic acid monosodium salt hydrate

**Recommended Use**

Laboratory chemicals

**Uses advised against**

No Information available

**Details of the supplier of the safety data sheet**

**Company**

Acros Organics BVBA
Janssen Pharmaceuticaan 3a
2440 Geel, Belgium

**E-mail address**

begel.sdsdesk@thermofisher.com

**Emergency Telephone Number**

For information in the US, call: 001-800-ACROS-01
For information in Europe, call: +32 14 57 52 11

Emergency Number, Europe: +32 14 57 52 99
Emergency Number, US: 001-201-796-7100

CHEMTREC Phone Number, US: 001-800-424-9300
CHEMTREC Phone Number, Europe: 001-703-527-3887

2. HAZARDS IDENTIFICATION

**Classification of the substance or mixture**

**REGULATION (EC) No 1272/2008**

Not hazardous

| Skin Corrosion / irritation | Category 2 |
| Serious Eye Damage/Eye Irritation | Category 2 |
| Specific target organ systemic toxicity (single exposure) | Category 3 |

**Classification according to EU Directives 67/548/EEC or 1999/45/EC**

*For the full text of the R phrases mentioned in this Section, see Section 16*

**Symbol(s)**

Xi - Irritant

**R -phrase(s)**

R36/37/38 - Irritating to eyes, respiratory system and skin
2. HAZARDS IDENTIFICATION

Label Elements

Signal Word Warning

Hazard Statements
H315 - Causes skin irritation
H319 - Causes serious eye irritation
H335 - May cause respiratory irritation

Precautionary Statements - EU (§28, 1272/2008)
P280 - Wear protective gloves/ protective clothing/ 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
P261 - Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water

Other Hazards
No information available.

<table>
<thead>
<tr>
<th>Component</th>
<th>EC No.</th>
<th>CAS-No</th>
<th>Weight %</th>
<th>Classification</th>
<th>GHSCLAS</th>
<th>REACH Reg. No.</th>
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</thead>
<tbody>
<tr>
<td>FerroZine iron reagent, hydrate</td>
<td>NA</td>
<td>NA</td>
<td>100</td>
<td>X;r;R36/37/38</td>
<td>STOT SE 3 (H335) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319)</td>
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</tr>
<tr>
<td>Benzenesulfonic acid, 4,4’-[(3-[(2-pyridinyl)-1,2,4-triazine-5,6-diy]bis-, monosodium salt</td>
<td>EEC No. 274-196-3</td>
<td>89898-45-9</td>
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<td>X;r;R36/37/38</td>
<td>STOT SE 3 (H335) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319)</td>
<td>-</td>
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</tbody>
</table>

For the full text of the _R_ phrases mentioned in this Section, see Section 16

4. FIRST AID MEASURES
4. FIRST AID MEASURES

<table>
<thead>
<tr>
<th>Description of first aid measures</th>
<th>Eye Contact</th>
<th>Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes Obtain medical attention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin Contact</td>
<td>Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes Obtain medical attention</td>
<td></td>
</tr>
<tr>
<td>Ingestion</td>
<td>Clean mouth with water Get medical attention</td>
<td></td>
</tr>
<tr>
<td>Inhalation</td>
<td>Remove from exposure, lie down Move to fresh air</td>
<td></td>
</tr>
</tbody>
</table>

Notes to Physician: Treat symptomatically

5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable Extinguishing Media
Water spray Carbon dioxide (CO₂) Dry chemical chemical foam

Extinguishing media which must not be used for safety reasons
No information available.

Special hazards arising from the substance or mixture
Thermal decomposition can lead to release of irritating gases and vapors

Advice for fire-fighters
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, protective equipment and emergency procedures
Ensure adequate ventilation

Environmental precautions
Prevent further leakage or spillage if safe to do so

Methods and material for containment and cleaning up
Avoid dust formation. Prevent product from entering drains. Sweep up or vacuum up spillage and collect in suitable container for disposal. Do not flush into surface water or sanitary sewer system.

7. HANDLING AND STORAGE

Precautions for Safe Handling
Avoid contact with skin and eyes Do not breathe dust Do not breathe vapors or spray mist

Conditions for safe storage, including any incompatibilities
Keep in a dry, cool and well-ventilated place Keep container tightly closed
8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

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

Derived No Effect Level (DNEL)
No information available.

Predicted No Effect Concentration (PNEC)
No information available.

Exposure controls
Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protective equipment

Eye Protection
Goggles

Hand Protection
Protective gloves

Skin and body protection
Wear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory Protection
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.

Hygiene Measures
Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls
No information available.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State
Powder, Solid

Appearance
Yellow

odor
odorless

pH
3.3 5% aq. sol.

Boiling Point/Range
No information available.

Melting Point/Range
>300°C / 572°F

Flash Point
No information available.

Autoignition Temperature
No information available.

Water Solubility
soluble

Molecular Formula
C20 H13 N4 Na O6 S2 . x H2 O

Molecular Weight
492.46

10. STABILITY AND REACTIVITY

Reactivity
Chemical Stability
Stable under normal conditions.

Possibility of Hazardous Reactions
Hazardous Polymerization
Hazardous polymerization does not occur.
Hazardous Reactions
No information available.

Conditions to Avoid
Incompatible products.

Incompatible Materials
Strong oxidizing agents, Strong acids.

Hazardous Decomposition Products

11. TOXICOLOGICAL INFORMATION

Information on Toxicological Effects

Acute Toxicity
Product Information
No acute toxicity information is available for this product

Component Information

Chronic Toxicity
Carcinogenicity
There are no known carcinogenic chemicals in this product

Sensitization
No information available.

Mutagenic Effects
No information available.

Reproductive Effects
No information available.

Developmental Effects
No information available.

Target Organs
No information available.

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

Endocrine Disruptor Information
None known

Component

<table>
<thead>
<tr>
<th>EU - Endocrine Disrupters Candidate List</th>
<th>EU - Endocrine Disruptors - Evaluated Substances</th>
<th>Japan - Endocrine Disruptor Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benzenesulfonic acid, 4,4’-[3-(2-pyridinyl)-1,2,4-triazine-5,6-diy]bis-, monosodium salt</td>
<td>Group III Chemical</td>
<td></td>
</tr>
</tbody>
</table>

12. ECOLOGICAL INFORMATION

Toxicity
Ecotoxicity effects
Do not flush into surface water or sanitary sewer system Do not allow material to contaminate ground water system
12. ECOLOGICAL INFORMATION

Persistence and degradability
No information available

Bioaccumulative potential
No information available.

Mobility in soil
No information available.

Results of PBT and vPvB assessment

Other adverse effects
No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods
Waste from Residues / Unused Products
Dispose of in accordance with local regulations

Contaminated Packaging
Empty containers should be taken for local recycling, recovery or waste disposal

14. TRANSPORT INFORMATION

IMDG/IMO
Not regulated

ADR
Not regulated

IATA
Not regulated

15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture

International Inventories

<table>
<thead>
<tr>
<th>Component</th>
<th>EINECS</th>
<th>ELINCS</th>
<th>NLP</th>
<th>TSCA</th>
<th>DSL</th>
<th>NDSL</th>
<th>PICCS</th>
<th>ENCS</th>
<th>CHINA</th>
<th>AICS</th>
<th>KECL</th>
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</thead>
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<tr>
<td>Benzenesulfonic acid, 4,4’-[3-(2-pyridinyl)-1,2,4-triazine-5,6-diyl]bis-, monosodium salt</td>
<td>274-196-3</td>
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<td>-</td>
<td>-</td>
<td>-</td>
<td>X</td>
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<td>-</td>
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</tbody>
</table>

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
16. OTHER INFORMATION

Text of R phrases mentioned in Section 2-3
R36/37/38 - Irritating to eyes, respiratory system and skin

Revision Date 07-Jan-2011
Revision Summary Not applicable

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

Disclaimer
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End of Safety Data Sheet