**FOR INDUSTRIAL USE ONLY**

Section I - Product Information and Identification

Product: ECOPOL-IRA-200  
General Description: Iron Reducing Agent
Chemical Family: Organic  
Primary Hazard: Corrosive Liquid

Section II – Composition, Information on Ingredients

<table>
<thead>
<tr>
<th>Material</th>
<th>Cas #</th>
<th>Percent</th>
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<tbody>
<tr>
<td>1) 2-Mercaptoethanol</td>
<td>60-24-2</td>
<td>60-100</td>
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</tbody>
</table>

Section III – Hazards Identification

Hazard Overview: DANGER! MAY BE FATAL IF ABSORBED THROUGH SKIN. HARMFUL IF SWALLOWED OR INHALED. CAUSES IRRITATION TO SKIN, EYES AND RESPIRATORY TRACT. COMBUSTIBLE LIQUID AND VAPOR.

Potential Health Effects

Inhalation: Vapors irritate the mucous membranes and respiratory tract. Symptoms may include coughing, sore throat, shortness of breath.

Ingestion: Toxic. Harmful if swallowed. Sore throat, abdominal pain and vomiting may occur.

Skin Contact: Toxic. Causes skin irritation and may be absorbed in the body in toxic quantities.

Eye Contact: Vapors irritate the eyes with redness and pain. Splashes may cause severe irritation.

Chronic Exposure: No information found.

Aggravation of Pre-existing Conditions: No information found.

Section IV – First Aid Measures
Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

Ingestion: Induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention.

Skin Contact: Remove any contaminated clothing. Wash skin with soap or mild detergent and water for at least 15 minutes. Get medical attention if irritation develops or persists.

Eye Contact: Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

Section V - Fire & Explosion Hazard Data

Fire: Flash point: 74°C (165°F) OC
Flammable limits in air % by volume:  lEL: 2.3; uEL: 18
Combustible Liquid and Vapor!

Explosion: Above flash point, vapor-air mixtures are explosive within flammable limits noted above.

Fire Extinguishing Media: Water spray, dry chemical, alcohol foam, or carbon dioxide. Water may be ineffective.

Special Information: In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode. Vapors can flow along surfaces to distant ignition source and flash back.

Section VI – Accidental Release Measures

Ventilate area of leak or spill. Remove all sources of ignition. Wear appropriate personal protective equipment as specified in Section 8. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Contain and recover liquid when possible. Use non-sparking tools and equipment. Collect liquid in an appropriate container or absorb with an inert material (e.g., vermiculite, dry sand, earth), and place in a chemical waste container. Do not use combustible materials, such as saw dust. Do not flush to sewer!

Section VII – Handling and Storage

Protect against physical damage. Outside or detached storage is preferred. Inside storage should be in a standard flammable liquids storage room or cabinet. Separate from oxidizing materials. Storage and use areas should be No Smoking areas. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquid); observe all warnings and precautions listed for the product.
Section VIII - Personal Protection Information

Airborne Exposure Limits: AIHA Workplace Environmental Exposure Level (WEEL): 0.2ppm, 8 hr TWA; skin contact can invalidate ceiling limit.

Ventilation System: A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.

Personal Respirators (NIOSH Approved): If the exposure limit is exceeded and engineering controls are not feasible, wear a supplied air, full-facepiece respirator, airlined hood, or full-facepiece self-contained breathing apparatus. Breathing air quality must meet the requirements of the OSHA respiratory protection standard (29CFR1910.134). This substance has questionable warning properties.

Skin Protection: Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Eye Protection: Use chemical safety goggles and/or a full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area.

Section IX - Physical Data

Flash Point: 165°F
Initial Boiling Point: 315°F
Color: Clear Colorless
Vapor Density: 2.7
Density: ~9.2 lbs/gal
Vapor Pressure: 1 @ 20°C

Pour Point: Not Determined
pH range (neat): Not Determined
Odor: Disagreeable
Specific Gravity: 1.1
Viscosity: Not Determined
Solubility in H₂O: Miscible

Section X - Reactivity Data

Stability: Stable under ordinary conditions of use and storage. Decomposes under the influence of moisture, water and acids, forming toxic and combustible gas (hydrogen sulfide).

Hazardous Decomposition Products: Burning may produce sulfur oxides.

Hazardous Polymerization: Will not occur.

Incompatibilities: Oxidizing agents, moisture. Avoid contact with metals.

Conditions to Avoid: Heat, ignition sources, moisture, incompatibles.

NFPA RATINGS: HEALTH 2, FLAMMABILITY 2, REACTIVITY 1
HIMS RATINGS: FLAMMABILITY 2, REACTIVITY 1, HEALTH 2
Section XI – Toxicological Information
Oral rat LD50: 244 mg/Kg; Skin rabbit LD50: 150 mg/Kg; Irritation data: eye, rabbit: 2 mg Severe; Investigated as a mutagen.

--------\Cancer Lists\-------------------------------
Ingredient                      Known Anticipated IARC Category
---------------------------------------------
Ethanol, 2-mercapto- (60-24-2)         No    No    None

---\NTP Carcinogen---

Section XII – Ecological Information
Environmental Fate: When released into the soil, this material may biodegrade to a moderate extent. When released into the soil, this material is expected to leach into groundwater. When released into the soil, this material is expected to quickly evaporate. When released into water, this material may biodegrade to a moderate extent. This material has a log octanol-water partition coefficient of less than 3.0. This material has an estimated bioconcentration factor (BCF) of less than 100. Volatilization, adsorption and bioconcentration are not expected to be important environmental fate processes. When released into the air, this material is expected to be readily degraded by reaction with photochemically produced hydroxyl radicals. When released into the air, this material is expected to exist in the aerosol phase with a short half-life. When released into the air, this material is expected to be readily removed from the atmosphere by wet deposition.

Environmental Toxicity: No information found.

Section XIII – Disposal Considerations
Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

Section XIV – Transport Information
DOT: UN 2966, Thioglycol, 6.1, PG II

Section XV – Regulatory Information

--------\Chemical Inventory Status - Part 1\-------------------------------
Ingredient                      TSCA    EC    Japan
---------------------------------------------
Ethanol, 2-mercapto- (60-24-2)         Yes    Yes    Yes

P.O. Box 450246
Houston, TX 77245-0246
USA Toll free: (800) 231-2066
Phone: (713) 723-8416
Fax: (713) 723-1845
URL: www.EconomyPolymers.com
E-mail: economy@economypolymers.com
### Chemical Inventory Status - Part 2

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### Federal, State & International Regulations - Part 1

**SARA 302**

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**SARA 313**

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**Federal, State & International Regulations - Part 2**

**RCRA**

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</tbody>
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**Chemical Weapons Convention:** No  
**TSCA 12(b):** No  
**CDTA:** No  
**SARA 311/312:** Acute: Yes  
Chronic: No  
Fire: Yes  
Pressure: No  
Reactivity: No  
(Pure / Liquid)

### Section XVI – Miscellaneous

Disclaimer: **This information is furnished without warranty, expressed or implied, as to accuracy for completeness. This information is obtained from various sources including the manufacturer and other third party sources. The information may not be valid under all conditions nor if this material is used in combination with other materials or in any process. Final determination of suitability of any material is the sole responsibility of the user.**