1. PRODUCT AND COMPANY IDENTIFICATION

Product name : ROVISOME ™ AHA (Sodium Malate)

Product Use Description : Raw material for formulation of cosmetic products.

Manufacturer/Importer/Distributor : Air Products and Chemicals, Inc
7201 Hamilton Blvd.
Allentown, PA 18195-1501
GST No. 123600835 RT0001
QST No. 102753981 TQ0001

Telephone : 1-610-481-4911 Corporate
1-800-345-3148 Chemicals Cust Serv
1-800-752-1597 Gases/Electronics Cust Serv

Emergency telephone number (24h) : 800-523-9374 USA
+1 610 481 7711 International

2. HAZARDS IDENTIFICATION

Emergency Overview
Keep away from heat and sources of ignition. Flammable.

Potential Health Effects
Skin contact : Prolonged or repeated contact may dry skin and cause irritation.
Chronic Health Hazard : This product contains listed carcinogen(s) according to IARC, ACGIH, NTP and/or OSHA in concentrations of 0.1 percent or greater. Ethanol

Exposure Guidelines
Target Organs : When consumed, ethyl alcohol can target the respiratory system, skin, eyes, CNS, liver, blood and reproductive system.
Aggravated Medical Condition
Liver disorders.

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS Number</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air Products and Chemicals, Inc</td>
<td>ROVISOME ™ AHA (Sodium Malate)</td>
<td></td>
</tr>
</tbody>
</table>
4. FIRST AID MEASURES

General advice: Seek medical advice. If breathing has stopped or is labored, give assisted respirations. Supplemental oxygen may be indicated. If the heart has stopped, trained personnel should begin cardiopulmonary resuscitation immediately.

Eye contact: Rinse immediately with plenty of water also under the eyelids for at least 20 minutes. Remove contact lenses.

Skin contact: Wash off immediately with plenty of water for at least 20 minutes.

Ingestion: Never give anything by mouth to an unconscious person. Prevent aspiration of vomit. Turn victim's head to the side.

Inhalation: Move to fresh air.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media: Alcohol-resistant foam. Carbon dioxide (CO2). Dry chemical. Dry sand. Limestone powder.

Extinguishing media which must not be used for safety reasons: high volume water jet

Specific hazards: Incomplete combustion may form carbon monoxide. Burning produces noxious and toxic fumes. In the event of fire, cool tanks with water spray. Fire or intense heat may cause violent rupture of packages. May form explosive mixtures in air.

Special protective equipment for fire-fighters: Use personal protective equipment. Wear self contained breathing apparatus for fire fighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Wear suitable protective clothing, gloves and eye/face protection. Use self-contained breathing apparatus and chemically protective clothing. Remove all sources of ignition. Evacuate personnel to safe areas.

Environmental precautions: Shut off or remove all ignition sources. Construct a dike to prevent spreading.

Methods for cleaning up: Contact Air Products' Emergency Response Center for advice. Approach suspected leak areas with caution. Absorb with inert absorbent materials such as: Dry sand. Vermiculite. Activated charcoal. Place in appropriate chemical
waste container.

Additional advice : If possible, stop flow of product.

7. HANDLING AND STORAGE

Handling
See "Flammable and Combustible Liquid Code" NFPA No. 30, National Fire Protection Association, Boston, MA. Emergency showers and eye wash stations should be readily accessible. Adhere to work practice rules established by government regulations. Use personal protective equipment. When using, do not eat, drink or smoke.

Storage
Keep the packing dry and well sealed to prevent contamination and absorption of dampness. Before opening containers, completely wipe the top of containers with a disinfectant solution. Efforts to avoid contamination include storage in the original containers, if necessary transfer to sterile containers only. Risk of microbial contamination: Product must be handled with care. The material is light and moisture sensitive. Avoid exposure to light. Keep away from heat. Keep containers tightly closed in a dry, cool and well-ventilated place. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. Keep away from heat and sources of ignition. Keep in a dry, cool place. Keep away from oxidizers.

Technical measures/Precautions
Keep away from open flames, hot surfaces and sources of ignition.

Storage Temperature : 39 °F (4 °C)

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering measures
Use explosion-proof equipment.
Apply process controls to ensure safe operating conditions. Assess potential flammability hazards based on flashpoint and potential ignition sources.
Provide readily accessible eye wash stations and safety showers.
Provide natural or explosion-proof ventilation adequate to ensure concentrations are kept below exposure limits.

Personal protective equipment
Respiratory protection : With correct and proper use, and under normal conditions, breathing protection is not required. Wear appropriate respirator when ventilation is inadequate.
Hand protection : For prolonged or repeated contact use protective gloves. Neoprene gloves.
The breakthrough time of the selected glove(s) must be greater than the intended use period.
Eye protection : Chemical safety glasses.
Skin and body protection : No specific recommendation.
Environmental exposure controls: Shut off or remove all ignition sources.

Special instructions for protection and hygiene: Wash at the end of each workshift and before eating, smoking or using the toilet. Provide readily accessible eye wash stations and safety showers.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form: Viscous.
Color: Opaque.
Odor: Alcoholic.
Relative density: 0.97 (water = 1) Estimated.
pH: 6.5 - 7.5
Boiling point/range: 194 °F (90 °C)
Flash point: 37 °C

10. STABILITY AND REACTIVITY

Chemical Stability: Stable under normal conditions.
Conditions to avoid: Exposure to light. Heat, flames and sparks.
Materials to avoid: Reactive metals (e.g. sodium, calcium, zinc etc.). Materials reactive with hydroxyl compounds. Oxidizing agents.
Hazardous decomposition products: Carbon monoxide, Carbon dioxide (CO2). Aldehydes Flammable hydrocarbon fragments.

11. TOXICOLOGICAL INFORMATION
Acute Health Hazard

Ingestion : No data is available on the product itself.

Ingestion - Components
Ethanol : LD50 : 7,060 mg/kg Species : Rat.

Inhalation : No data is available on the product itself.

Inhalation - Components
Ethanol : LC50 (10 h) : 38 mg/l Species : Rat.

Dermal : No data is available on the product itself.

Other Health Hazards

Carcinogenicity
Ethanol : ACGIH Group A3 - Confirmed animal carcinogen with unknown relevance to humans. Available evidence does not suggest that the agent is likely to cause cancer in humans except under uncommon or unlikely routes or levels of exposure.

12. ECOLOGICAL INFORMATION

Ecotoxicity effects

Aquatic toxicity : No data is available on the product itself.

Toxicity to fish - Components
Ethanol : LC50 (96 h) : 13,480 mg/l Species : Fathead minnow (Pimephales promelas).

Ethanol : LC50 (96 h) : 13,000 mg/l Species : Rainbow trout (Oncorhynchus mykiss).

Toxicity to daphnia - Components
Ethanol : EC50 (48 h) : 12,340 mg/l Species : Daphnia

Ethanol : EC50 (48 h) : 5,012 mg/l Species : Ceriodaphnia.

Toxicity to algae - Components
Ethanol : EC50 (96 h) : 10,000 mg/l Species : Algae.

Toxicity to other organisms : No data available.

Persistence and degradability

Biodegradability : No data is available on the product itself.

Mobility : No data available.

Bioaccumulation : No data is available on the product itself.
Bioaccumulation - Components
Ethanol
Negligible bioaccumulation potential.

13. DISPOSAL CONSIDERATIONS

Waste from residues / unused products: Contact supplier if guidance is required.

Contaminated packaging: Dispose of container and unused contents in accordance with federal, state, and local requirements.

14. TRANSPORT INFORMATION

DOT
Not dangerous goods

IATA
Not dangerous goods

IMDG
Not dangerous goods

TDG
Not dangerous goods

Further Information
The transportation information is not intended to convey all specific regulatory data relating to this material. For complete transportation information, contact an Air Products customer service representative.

15. REGULATORY INFORMATION

Toxic Substance Control Act (TSCA) 12(b) Component(s):
None.

Flammable.

<table>
<thead>
<tr>
<th>Country</th>
<th>Regulatory list</th>
<th>Notification</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>TSCA</td>
<td>Not regulated by TSCA. Personal Care use only</td>
</tr>
<tr>
<td>EU</td>
<td>EINECS</td>
<td>Substance is in compliance with REACH requirements for cosmetic product components.</td>
</tr>
<tr>
<td>Canada</td>
<td>DSL</td>
<td>Not on Inventory.</td>
</tr>
<tr>
<td>Australia</td>
<td>AICS</td>
<td>Included on Inventory.</td>
</tr>
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</table>
Air Products and Chemicals, Inc.

ROVISOME™ AHA (Sodium Malate)

Material Safety Data Sheet
Version 1.0
Revision Date 05/07/2013
Print Date 05/19/2013

<table>
<thead>
<tr>
<th>Country</th>
<th>ENCS</th>
<th>Status</th>
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<tr>
<td>Japan</td>
<td>ENCS</td>
<td>Included on Inventory.</td>
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<tr>
<td>South Korea</td>
<td>ECL</td>
<td>Not regulated by TCCA, regulated by Cosmetics Act.</td>
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<tr>
<td>China</td>
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<td>Not on Inventory.</td>
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<tr>
<td>Philippines</td>
<td>PICCS</td>
<td>Included on Inventory.</td>
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</table>

EPA SARA Title III Section 312 (40 CFR 370) Hazard Classification

Fire Hazard.

EPA SARA Title III Section 313 (40 CFR 372) Component(s) above 'de minimus' level

None.

US. California Safe Drinking Water & Toxic Enforcement Act (Proposition 65)

This product does not contain any chemicals known to State of California to cause cancer, birth defects or any other harm.

WHMIS Hazard Classification

Flammable Liquid

16. OTHER INFORMATION

HMIS Rating

<table>
<thead>
<tr>
<th>Health</th>
<th>Flammability</th>
<th>Physical hazard</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>3</td>
<td>0</td>
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</table>

Prepared by: Air Products and Chemicals, Inc. Global EH&S Product Safety Department

Telephone: 1-610-481-4911 Corporate
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Preparation Date: 05/19/2013

For additional information, please visit our Product Stewardship web site at http://www.airproducts.com/productstewardship/