

HERCULES

21.010-4 UK
July 1994
supersedes 21.010-E3)

Safety Data Sheet

Foral® AX-E Fully Hydrogenated Rosin

1. IDENTIFICATION OF PRODUCT

Trademark	Foral® AX-E Fully Hydrogenated Rosin
Chemical Description	Hydrogenated rosin
CAS Number	65997-06-0
Producer	Hercules BV, P.O. Box 5822, 2280 HV Rijswijk, The Netherlands
Emergency telephone number	tel.: +31-70-4.134.218, fax: +31-70-398.88.93 Regulatory and Environmental Affairs Department +31-70-4.134.218

2. INFORMATION ON INGREDIENTS

Chemical Description	Hydrogenated rosin
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3. HAZARDS IDENTIFICATION

Short Term Exposure	No effects known on humans from discontinuous short-term exposure. Prolonged or repeated skin contact may cause irritation or sensitization in sensitive subjects.
Long Term Exposure	
Ecology	Prevent the emission of this product to the environment by blocking access to drains, access to water courses and access to fields.

4. FIRST AID MEASURES

Skin	Wash off immediately with plenty of soap and water. Hot resin splashes should be left intact. If necessary consult a doctor.
Eyes	Treat the solid resin as an inert particle. Irrigate with water for at least 15 minutes. Remove contact lenses for better cleansing. If necessary consult a doctor.
Oral	Rinse out mouth with water. Drink large quantities of water. Call a doctor. NEVER give anything by mouth to an unconscious person.
Inhalation	Remove to fresh air. Treat any irritation symptomatically. If necessary consult a doctor.

5. FIRE FIGHTING MEASURES

Conditions to Avoid	Avoid excess dust in the atmosphere since this is an explosion hazard in the presence of electrical sparks and static discharges. Avoid flammable vapours when removing shrink-wrap film from pallets, since these may ignite due to static electricity. Avoid overheating, especially by direct contact with naked flames. Avoid static build-up when emptying packaging. Earth all equipment and attach a grounding cable to the packaging grounding connection.
Danger Signs	Excessive fumes from overheating the resin.

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Fire Fighting Measures	Fight the fire using water spray, sand, dry powder, carbon dioxide or foam. Cool packaging by spraying with water.
Protective Equipment	Impervious gloves. Use goggles. Use a dust mask. Good ventilation should be sufficient to control airborne levels.
Combustion Products	Carbon monoxide, carbon dioxide, aldehydes and smoke.

6. ACCIDENTAL RELEASE MEASURES

Protective Equipment	Impervious gloves. Use goggles. Use a dust mask. Good ventilation should be sufficient to control airborne levels.
Spillage	This product represents little hazard to humans since this material is regarded as not being acutely toxic. Sweep up the resin for use or place in a container for disposal. Small quantities may be well diluted with water and passed to an effluent/sewage plant. Powder and dust should be sprinkled with water.

7. HANDLING AND STORAGE

Handling

Handle in a well ventilated area. The conditions of use of this resin should be examined to try to reduce fumes and dusting. The fine particles and powder should be regarded as an inert, nuisance dust with a threshold limit value of 10 mg/m³ for total dust and of 5 mg/m³ for the respirable portion. When emptying where flammable vapours are present, earth the operator, blanket the vessel with an inert gas and pour this product into a conductive earthed chute. Earth all equipment.

Storage

Product should be stored, under cover, in a clean well ventilated area. Maintain a clean area by removing dust. Keep away from heat, sparks and other sources of ignition. No smoking. The product is prone to slow oxidation and it is recommended that it be used on a first-in first-out basis.

Packaging Material To Avoid

None. The packaging material should have reasonable moisture and air barrier properties.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls	Handle in a well ventilated area. Normal industrial hygiene measures should be sufficient. The conditions of use of this resin should be examined to try to reduce fumes and dusting.
Protective Equipment	Impervious gloves. Use goggles. Use a dust mask. Good ventilation should be sufficient to control airborne levels.

9. PHYSICAL AND CHEMICAL PROPERTIES

Typical data are:

Form	Pellets or solid
Softening Point (°C)	81
Colour	Pale amber
Density (25 °C, kg/dm³)	1.05
Solubility	Negligible in water at 20 °C. Soluble in alcohols, esters, ketones, hydrocarbons, chlorinated solvents and mineral oils.
Flash Point (°C)	> 190
Odour	Slight rosin odour
Vapour Pressure (mm Hg)	Essentially non-volatile at ambient temperatures

10. STABILITY AND REACTIVITY

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**Stability
Reactivity**

This product is chemically stable.
This product has limited chemical reactivity. No hazardous chemicals are known to be formed during the use of this product. This product may react with oxidizing agents. Uncontrolled reaction may lead to a fire/explosion.

11. TOXICOLOGICAL INFORMATION**Dermal**

Based on our extensive experiences we have concluded that this product may be a low order sensitizer on a small percentage of individuals if the skin exposure is sufficiently intimate and the duration of exposure is sufficiently long. Consumer applications that involve intimate skin contact should be evaluated by appropriate tests. Normal handling of these products during manufacture and use should not constitute a dermal hazard, but the use of gloves is recommended as a good hygiene practice.

Eyes

The fine particles and powder should be regarded as an inert, nuisance dust.

Oral

Not determined. Based on tests with similar products, the expected LD50 is > 2000 mg/kg. A 90 day rat feeding study demonstrated a no-toxic effect level of 0.2% in the diet. This product was fed to rats and dogs for 2 years and a no-toxic effect level of 0.05% in the diet was demonstrated.

Inhalation

Noxious and irritating fumes may be released on melting this product. The thermal decomposition of these vapours at about 400 °C may give rise to products which, if not ventilated adequately, could cause asthmatic attacks in a small percentage of exposed workers.

12. ECOLOGICAL INFORMATION**Acute Bacterial Cell Multiplication Inhibition Test**

Based on a test conducted on a similar resin it is expected that no toxicity threshold value could be determined either on the resin itself or on homogenous dispersions, for *Pseudomonas putida* due to insolubility of the resin (value > 10 g/l).

Acute Fish Toxicity

Based on tests conducted on a similar resin, this product should be regarded as being toxic to fish (acute fish 48 hours - LC50 = 10.7 mg/l).

Biodegradability

Based on tests on similar resins it is expected that this product cannot be regarded as readily biodegradable in the Modified Sturm Test. However, it will be very slowly biodegradable.

WGK Classification

1 (self-classification)

13. DISPOSAL CONSIDERATIONS

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Disposal

Dispose by controlled incineration or by dumping in an approved landfill area according to local regulations.

14. TRANSPORT INFORMATION

<i>UN Number</i>	None
<i>IMO Classification</i>	None
<i>ADR Classification</i>	None
<i>IATA Classification</i>	None

15. REGULATORY INFORMATION

<i>EC Labelling</i>	None
<i>Risk Phrases</i>	None
<i>Safety Phrases</i>	None

16. OTHER INFORMATION

<i>Additional Information</i>	None
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