

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Identification of the substance or mixture

Product Name:	Forumlok (Resin)
Product Code:	19950-A
Product Use:	Thread locking compound, adhesive
Supplier:	Forum Energy Technologies
	10344 Sam Houston Park Drive, Suite 300
	Houston, TX 77064
	Tel: 713-351-7900
	www.f-e-t.com

Emergency telephone number: +1 813 248 0585, 24 hours

E-mail address for questions regarding this SDS: <u>sharons@socousa.com</u>

2. HAZARDS IDENTIFICATION

GHS Classification

Skin irritation (Category 2) Eye irritation (Category 2A) Skin sensitization (Category 1) Germ cell mutagenicity (Category 2) Acute aquatic toxicity (Category 2) Chronic aquatic toxicity (Category 2)

GHS label elements



Signal Word: Warning Hazard statements: H315 – Causes skin irritation H317 – May cause an allergic skin reaction H319 – Causes serious eye irritation H341 – Suspected of causing genetic effects



H411 – Toxic to aquatic life with long lasting effects

Precautionary statements:

P273 – Avoid release to the environment

P280 – Wear protective gloves/eye protection/face protection

P302 + P352 – IF ON SKIN: Wash with plenty of soap and water

P305 + P351 + P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact

lenses, if present and easy to do. Continue rinsing.

P308 + P313 – IF exposed or concerned: get medical advice/attention.

Other hazards: High pressure injection under skin is a medical emergency.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	Concentration
Propane, 2,2-bis[p-(2,3-epoxypropoxy)phenyl]-, polymers	30-45%
CAS-No. 25085-99-8	
1,2-Epoxy-3-(2-methylphenoxy)propane	10-20%
CAS-No. 2210-79-9	

4. FIRST AID MEASURES

General: Inhalation: Ingestion:	If exposed or concerned, get medical attention or advice. Move exposed person to fresh air. If effects occur, get medical attention. Wash out mouth with water. Do not induce vomiting. Get medical attention if stomach pains or nausea occur.
Skin contact:	Remove contaminated clothing and shoes. Wash skin with soap and water. Get medical attention if irritation symptoms persist.
Eye contact:	Check for and remove any contact lenses. Immediately flush eyes with running water for at least 5 minutes, keeping eyelids open. Get medical attention.

5. FIRE-FIGHTING MEASURES

Suitable media:	Use dry chemical, CO ₂ , water spray (fog) or foam.
Not suitable:	Do not use water jet.
Combustion products:	Carbon monoxide, carbon dioxide, phenolics.
Special protective equipment	Fire-fighters should wear appropriate protective equipment and self-
for fire-fighters:	contained breathing apparatus with a full face-piece operated in
	positive pressure mode.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions:Wear appropriate personal protection equipment (see section 8).Environmental precautions:Recover free product. Use suitable oil adsorbent and dispose of
material in accordance with all regulations. Keep product out of sewers



and watercourses, prevent soil penetration. Advise authorities if large amounts of product enter waterways or extensive land areas.

7. HANDLING AND STORAGE

Handling:	Wear appropriate personal protection equipment (see section 8). Do not eat, drink or smoke when using. Wash thoroughly after handling. Follow good hygiene and housekeeping practices.
Storage:	Store in cool dry area in original or equivalent container in accordance with all regulations. Do not expose to extreme heat or flame. Do not expose to extreme cold. Store at $5 - 40^{\circ}$ C, away from strong oxidizers and acids.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters:	No ingredients have workplace exposure limits.
Engineering controls:	Use with adequate ventilation.
Eye/face protection:	Safety glasses. Ensure eye bath is to hand.
Hand protection:	Protective gloves. Nitrile or butyl rubber recommended.
Skin protection:	No additional protection required beyond normal industrial attire is required.
Respiratory protection:	No special measures required.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance and odor:	Grey paste, mild odor
pH:	Not applicable, insoluble in water
Flash point:	121°C (250°F) (PMCC)
Evaporation rate:	No data
Upper flammability limit:	Not applicable
Lower flammability limit:	Not applicable
Vapor pressure:	No data
Vapor density:	No data
Relative density:	1.4
Solubility:	Insoluble in water
Viscosity:	Cone penetration 330-365 (ASTM D217)

10. STABILITY AND REACTIVITY

Chemical stability:	Stable
Polymerization:	Will not occur without amine catalyst, then it may build up heat
Conditions to avoid:	Extreme heat
Incompatible materials:	Strong oxidizers.
Hazardous decomposition	
products:	Carbon oxides, phenolics



11. TOXICOLOGICAL INFORMATION

Potential acute health effects

Acute toxicity:

LD50 Oral – rat - >5000 mg/kg estimated, based on components		
LD50 Dermal – rabbit - >5000 mg/kg estimated, based on components		
Eye damage/irritation:	May cause moderate eye irritation. Corneal damage is unlikely.	
Skin corrosion/irritation:	Prolonged or repeated contact may cause skin irritation with local	
	redness.	

Potential chronic health effects

Sensitization:	May cause allergic skin reaction
Repeated dose toxicity:	Except for skin sensitization, none anticipated
Carcinogenicity:	No ingredients listed as carcinogens
Mutagenicity:	In vitro tests showed mutagenic effects
Reproductive toxicity:	No ingredients suspected to cause reproductive effects
STOT repeated exposure:	No known effects

12. ECOLOGICAL INFORMATION

Ecotoxicity: Toxic to aquatic life with long lasting effects

Propane, 2,2-bis[p-(2,3-epoxypropoxy)phenyl]-, polymers

Toxicity to fish: LC50 – Oncorhynchus mykiss (rainbow trout) – 96h – 2 mg/l Toxicity to daphnia and other aquatic invertebrates: EC50 – Daphnia magna (water flea) – 48h – 1.8 mg/l Toxicity to algae: EC50 – Scenedesmus capricornutum (fresh water algae) – 72h – 11 mg/l Chronic toxicity: NOEC – Daphnia magna (water flea) – 21d – 0.3 mg/l

1,2-Epoxy-3-(2-methylphenoxy)propane

Toxicity to fish: LC50 – Oncorhyr	nchus mykiss (rainbow trout) – 96h – 7.5 mg/l	
Toxicity to daphnia and other aquatic invertebrates: EC50 – Daphnia magna (water flea) – 48h – 3.3 mg/l		
Toxicity to algae: EC50 – Scenedesmus capricornutum (fresh water algae) – 72h – 5.1 mg/l		
Persistence/degradability:	Not expected to be readily biodegradable	
Bioaccumulative potential:	Moderate, Log Pow estimated between 3 and 5	
Mobility in soil:	No information available	
Other adverse effects:	No information available	

13. DISPOSAL CONSIDERATIONS

Waste disposal:Generation of waste should be avoided or minimized where possible.Empty containers may contain residue. Dispose of as hazardous waste
via licensed waste disposal operator. Follow all applicable regulations.

14. TRANSPORT INFORMATION

Transport information according to ADR, RID, ADN, IMDG, ICAO, IATA UN number: UN3077



Proper shipping name: Hazard class: Packing group Additional information: Environmentally hazardous substance, solid, n.o.s. (epoxy resin) Class 9 PGIII Marine pollutant Not regulated in containers 5kg or less.

Transport information according to USDOT: Not regulated.

15. REGULATORY INFORMATION

US Regulations

SARA 302 Extremely Hazardous Substances: None. SARA 313 Components: None.

State Regulations

California Prop 65: No ingredients listed. Massachusetts Right to Know: No ingredients listed. New Jersey Right to Know: No ingredients listed. Pennsylvania RTK Hazardous Substances: No ingredients listed.

United States inventory (TSCA): All ingredients listed or exempt.

International regulations

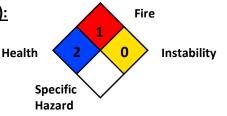
Canada: WHMIS Classification: D2B: Material causing other toxic effects (toxic). **WHMIS**: This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR. **Canada DSL**: All ingredients listed.

16. OTHER INFORMATION

Hazardous Material Information System (USA):

HEALTH	2*
FIRE	1
REACTIVITY	0
PERSONAL PROTECTION	В

National Fire Protection Association (USA):





Revision information: Original GHS issue 12 May 2015. Rev 1: correction in Section 2 to add Muta. 2, H341 and pictogram; associated changes in Section 11, 16. Rev 2: product name change in Section 1 and title. Rev 3: reviewed with no changes.

END OF SAFETY DATA SHEET