GELEST, INC.

11 East Steel Rd. Morrisville, PA 19067 Phone: (215) 547-1015

MATERIAL SAFETY
DATA SHEET

EMERGENCY TELEPHONE CHEMTREC: 1-800-424-9300

NAME USED ON LABEL: Zipcone™ FN - PP1-ZPFN

CHEMICAL NAME: Siloxanes and silicones, (cyclohexylamino)methyl methyl, dimethyl,

(cyclohexylamino)methyl terminated SYNONYMS: AMINE CURE SILICONE RTV

CHEMICAL FAMILY: ORGANOSILOXANE

HMIS CODES HEALTH: 3 FLAMMABILITY: 4 REACTIVITY: 1

INGREDIENTS

IDENTITY CAS NO. % ACGIH TLV OSHA PEL

Siloxanes and silicones, (cyclohexylamino)methyl methyl, dimethyl,

(cyclohexylamino)methyl terminated 107659-90-5 30-35 not established

HEPTANE 142-82-5 60-70 100ppm 500ppm(TWA) CYCLOHEXYLAMINE 108-91-8 <2 10ppm not established

PHYSICAL DATA

Boiling Point: 98°C- initial (heptane) Freezing Point: <-20°C

Specific Gravity: 0.81 Vapor Pressure at 22°C (heptane): 40mm

Vapor Density (air=1): 3.45 (heptane) Solubility in water: insoluble, reacts

% volatiles: >60% Evaporation rate: NA

Molecular Weight: NA Other: NA Appearance & Color: Viscous liquid with amine odor

FIRE & EXPLOSION DATA

Flash Point, COC: 0°C (32°F) Autoignition Temp.: 204°C (heptane)

Flammability Limits- (heptane) LEL: 1% UEL: 6.7%

Extinguishing Media: Water spray, foam, carbon dioxide, dry chemical.

Special Fire Fighting Procedures: Avoid eye and skin contact. Do not breathe fumes or inhale

vapors.

Unusual Fire and Explosion Hazards: Irritating fumes of hydrochloric acid and organic acid

vapors may develop when material is exposed to water or open flame.

-1-(PP1-ZPFN)

ENVIRONMENTAL INFORMATION

Spill response: May be hazardous to aquatic life if released to open waters. Cover spill with absorbent material. Transfer to a suitable container for disposal.

Recommended Disposal: May be incinerated. Alternately, absorb onto clay or vermiculite and dispose of absorbent material as solid waste. Follow all chemical pollution control regulations.

HEALTH HAZARD DATA

Eye Contact: Will cause immediate or delayed severe eye irritation.

Skin contact: May produce irritation or contact dermatitis which may be delayed several hours. Prompt and thorough washing with soap and water will reduce or eliminate potential dermal effects.

Inhalation: Inhalation of vapors or particulates of may irritate the respiratory tract. Heptane can cause vertigo, incoordination and stupor at 5000ppm. The volatile byproduct of cure is cyclohexylamine, which has been reported as toxic (orl-rat, LD50: 156mg/kg).

Oral Toxicity: not determined

Chronic Toxicity: No chronic organic toxicity has been observed for heptane. The volatile byproduct of cure is cyclohexylamine for which human mutagenic data have been reported.

SUGGESTED FIRST AID

EYES: In case of contact, immediately flush eyes with flowing water for at least 15 minutes. Get medical attention.

SKIN: Flush with water, then wash with soap and water.

INHALATION: Move exposed individual to fresh air. Call a physician.

INGESTION: Never give fluids or induce vomiting if patient is unconscious or having convulsions. Get medical attention.

REACTIVITY DATA

Stability: Stable in sealed containers stored under a dry inert atmosphere. Conditions to avoid: Flammable; avoid contact with heat, sparks or open flame. Incompatibility (materials to avoid): Avoid contact with oxidizers, water, alcohol. Hazardous decomposition products: Cyclohexylamine, organic acid vapors.

SPECIAL PROTECTION INFORMATION

Ventilation: Local exhaust is required. Mechanical is recommended.

Respiratory Protection: If exposure exceeds TLV air-supplied or combination organic vapor acid

gas respirator.

Eye and Face Protection: Chemical worker's goggles. Do not wear contact lenses.

Other Clothing and Equipment: Rubber, neoprene or nitrile gloves. An eyewash and emergency

shower should be available. Launder clothing before reuse.

OTHER PRECAUTIONS

For research use only.

Storage and Handling: Store in sealed containers.

TRANSPORTATION

DOT SHIPPING NAME: COATING SOLUTION (HEPTANE).

DOT HAZARD CLASS: 3

DOT LABEL: FLAMMABLE LIQUID

DOT ID No: UN 1139 PG: II

Prepared by safety and environmental affairs ISSUE DATE PP1-ZPFN: 1/13/03

SUPERSEDES: 9/2/98

The information contained in this document has been gathered from reference materials and/or Gelest, Inc. test data and is to the best knowledge and belief of Gelest, Inc. accurate and reliable. Such information is offered solely for your consideration, investigation and verification. It is not suggested or guaranteed that the hazard precautions or procedures described are the only ones which exist. Gelest, Inc. makes no warranties, express or implied, with respect to the use of such information and assumes no responsibility therefore.