MATERIAL SAFETY DATA SHEET

DATE PREPARED: 08/2016

TECH PLASTIC

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Name of Supplier:

NLS Products Tel: (705) 738-2321 Box 790, 1 Lakewood Crescent Fax: (705) 738-4550

Bobcaygeon, ON K0M 1A0

Product Name: Tech Plastic Product Type: Epoxy Resin

Product Stock #: 2900

2. COMPOSITION/INFORMATION ON INGREDIENTS

HAZARDOUS CONSTITUENTS

Exposure Limits

Constituent	Abbr.	CAS#	Wght%	ACGIH TLV	OSHA PEL	Other Limits
Aluminum oxide		1344281	<5	10 mg/m3	15 mg/m3	10 mg/m3 (Canada)
Aminoethyl-iperazine	AEP	140318	1-10	N/e	N/e	N/e
Crystalline silica		14808607	<1	0.1 mg/m3	0.1 mg/m^3	0.1 mg/m^3 (Canada)
Bisphenol A diglycidyl ether resin	DGEBPA	25068386	5-20	N/e	N/e	N/e
Fibrous glass		65997173	15-30	5 mg/m3	5 mg/m3(resp)	N/e
Polymercaptan curing agent		*	5-15	N/e	N/e	N/e

[&]quot;TLV" means the Threshold Limit Value exposure (eight-hour, time-weighted average, unless otherwise noted) established by the American Conference of Governmental Industrial Hygienists. "STEL" indicates a short-term exposure limit. "PEL" indicates the OSHA Permissable Exposure Limit. "n/e" indicates that no exposure limit has been established. An asterisk (*) indicates a substance whose identity is a trade secret of our supplier and unknown to us.

3. HAZARDS IDENTIFICATION

Emergency Overview

Appearance, form, odor: Pink/White putty with low odor.

CAUTION! Eye and skin irritant. Potential skin sensitizer. Avoid eye contact. May be harmful if swallowed. Wash with soap and water after use. In case of eye contact flush with water for 15 minutes and seek medical attention.

Potential Health Effects

Primary routes of	exposure:	
Skin contact	☐ Skin absorption ☐ Eye contact	☐ Inhalation ☐ Ingestion

Symptoms of acute overexposure:

Skin: May cause irritation to sensitive skin .**Eyes:** Mild irritation.

Inhalation: No data **Ingestion:** No data. May cause irritation, nausea, vomiting, diarrhea. **Effects of chronic overexposure:** Prolonged or repeated overexposure may cause allergic sensitization (rash, itching, and redness). A component in product has shown activity by in vitro microbial mutagenicity screening and produced chromosomal abberations in cultured rat liver cells.

Product Name: Tech Plastic Product Type: Epoxy Resin

Carcinogenicity:

OSHA regulated: No ACGIH: No

Nat'l Toxicology Program: Yes Internal Agency for Research on Cancer: Yes

Cancer-suspect constituent(s): silica

Medical conditions which may be aggravated by exposure: Allergies, skin disorders.

4. FIRST AID MEASURES

First aid for eyes: Flush with clear water for 15 minutes.

First aid for skin: Remove contaminant and contaminated clothing. Wash thoroughly with soap and

water.

First aid for inhalation: Remove to fresh air.

First aid for ingestion: Contact a physician. Do NOT induce vomiting.

5. FIRE FIGHTING MEASURES

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Flash Point (°F): >500 Method: TCC

Explosive limits in air (percent) – Lower: n/d **Upper:** n/d

Special firefighting procedures: Firefighters should wear self-contained breathing apparatus and

protective clothing.

Unusual fire and explosion hazards: toxic smoke and vapors may form during decomposition. Hazardous products of combustion: Oxides of carbon, sulfur and nitrogen. Aldehydes, ketones

and other unknown organic compounds.

6. ACCIDENTAL RELEASE MEASURES

Spill control: Not applicable. **Containment:** Not applicable.

Cleanup: Absorb spillage on inert material and discard in suitable containers.

Special procedures: Prevent spill from entering drainage/sewer systems, waterways, and surface

waters.

7. HANDLING AND STORAGE

Handling Precautions: Keep hands away from eyes when handling material or before washing after use. Wash thoroughly after using, particularly before eating or smoking. If this product is sanded or machined after curing, take appropriate precautions against inhalation of nuisance particulates. A TLV of 2 mg/m3 should be observed.

Storage: Store in a cool dry place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls

Ventilation: General mechanical is satisfactory. If odor is disagreeable, use local exhaust.

Other engineering controls: Have emergency shower and eye wash available.

Personal protective equipment

Eye and face protection: Safety glasses Skin protection: Polyethylene gloves for prolonged use.

Respiratory protection: None needed in normal use with proper ventilation.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Specific gravity: 1.9 Boiling point(°F): n/d **Melting point(°F):** n/d **Vapor density** (air = 1): >1 Vapor pressure (mmHg): Nil at 78°F Evaporation rate (butyl acetate = 1): <1 VOC (grams/liter): Solubility in water: negligible Percent volatile by volume:0 pH (5% solution or slurry in water):9.5

Percent solids by weight: 100

10. STABILITY AND REACTIVITY

Stability: This material is chemically stable. Hazardous polymerization will not occur.

Conditions to avoid: Exposure to open flame or excessive heat.

Incompatible materials: Strong oxidizing agents. Acids. Strong mineral and organic bases.

Hazardous products of decomposition: Oxides of carbon, sulfur and nitrogen. Aldehydes, ketones

and other unknown organic compounds.

Conditions under which hazardous polymerization may occur: None.

11. TOXICOLOGICAL INFORMATION

Acute oral effects: LD50 (rat): No data available. Acute dermal effects: LD50 (rabbit): No data available. Acute inhalation effects: LC50 (rat): No data available.

Eve irritation: Not available. **Subchronic effects:** Not available. **Exposure:** 0 hours. Carcinogenicity, teratogenicity, and mutagenicity: Both the resin and the diglycidyl ether of bisphenol A (a component of this product) have proved to be inactive when tested by In Vivo mutagenicity assays. Both have shown activity by In Vitro microbial mutagenicity screening and have produced chromosomal aberrations in cultured rat liver cells.

Other chronic effects: 2-year bioassays in mice exposed by the dermal route to EPON 828, DGEBPA, or other commercial resins yielded limited evidence of weak carcinogenicity. The authors concluded that the renal tumor evidence with EPON 828 "was of no biological significance" and that the resin "is not a systematic carcinogen when applied to the dorsal skin of CF1 mice."

Toxological information on hazardous chemical constituents of this product: N/d = not determined

Constituent	Oral LD50(rat)	Dermal LD50(rabbit)	Inhalation LC504 hr.(rat)
Aluminum oxide	N/d	N/d	N/d
Aminoethylpiperazine	2140 mg/kg	900 mg/kg	N/d
Crystalline silica	N/d	N//d	N/d
Bisphenol A diglycidyl ether resin	30 g/kg	>20 ml/kg	No deaths
Fibrous glass	N/d	N/d	N/d
Polymercaptan curing agent	N/d	N/d	N/d

12. ECOLOGICAL INFORMATION

Ecotoxicity: Not available. **Mobility and persistence:** Not available.

Environmental fate: Not available.

13. DISPOSAL CONSIDERATIONS (Please see also Section 15, Regulatory Information)

Waste management recommendations: Remove to a waste disposal facility operating in compliance with state and local regulations.

Product Name: Tech Plastic Product Type: Epoxy Resin

14. TRANSPORT INFORMATION

Proper shipping name: non-regulated **Technical name**: n/a **Hazard class**: n/a **UN number**: n/a

Packing group: n/a Emergency Response Guide no: n/a

15. REGULATORY INFORMATION

U.S. Federal Regulations:

TSCA: All ingredients of this product are listed, or are exempt from listing, on the TSCA inventory.

The following RCRA code(s) applies to this material if it becomes waste: None.

Regulatory status of hazardous chemical constituents of this product:

Constituent	Extremely	Toxic	CERCLA	TSCA 12B Export
	Hazardous*	Chemical**	RQ (lbs)	Notification
Aluminum oxide	No	Yes	0.0	Not required
Aminoethylpiperazine	No	No	0.0	Not required
Crystalline silica	No	No	0.0	Not required
Bisphenol A diglycidyl ether resin	No	No	0.0	Not required
Fibrous glass	No	No	0.0	Not required
Polymercaptan curing agent	No	No	0.0	Not required

^{*}Consult the appropriate regulations for emergency planning and release reporting requirements for substances on the SARA Section 301 Extremely Hazardous Substance list.

For purposes of SARA Section 312 hazardous materials inventory reporting, the following hazard classes apply to this material: - Immediate health hazard—Delayed health hazard –

Canadian regulations

WHMIS hazard class(es): D2B

All components of this product are on the Domestic Substances List.

16. OTHER INFORMATION

Hazardous Materials Identification System (HMIS) ratings: Health – 1* Flammability – 0 Reactivity – 0

The information and recommendations in this document are based on the best information available to us at the time of preparation, but we make no other warranty, express or implied, as to its correctness or completeness, or as to the results of reliance on this document.

NLS Products

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Tel: (705) 738-2321 Fax: (705) 738-4550 www.nlsproducts.ca

^{**}Substances for which the "Toxic Chemical" column is marked "Yes" are on the SARA Section 313 list of Toxic Chemicals, for which release reporting may be required. For specific requirements, consult the appropriate regulations.