



an EnPro Industries company

Material Safety Data Sheet G11

SECTION 1: Identification of the Substance/mixture and of the Company/Undertaking

Trade Name: NEMA Grade G11

SECTION 2: Hazards Identification

Dust generated during machining and grinding operations may cause skin or eye irritation. Fumes from thermal decomposition or burning may irritate eyes, nose, and throat. Minimize operator exposure to dust and fumes.

Routes of Exposure:

Inhalation

Skin
Eyes

Ingestion
Cancer
Chronic

Symptoms:

Inhalation of dust during machining and grinding operations may cause moderate irritation to mucous membranes and coughing.

Contact with dust may cause moderate irritation.

Contact with dust may cause moderate eye irritation, itching and redness.

Not determined

OSHA: N/A IARC: N/A NTP: N/A

Dust generated during grinding, cutting, or drilling fiber glass reinforced plastic produces respirable fiber shaped plastic (organic) particles whose concentration increases proportionally with dust concentration. These particles are not classified as carcinogenic by IARC or NTP.

However, prolonged inhalation of dust can produce lung disease.

SECTION 3: Composition/Information on Ingredients

Component Information:

Chemical Name	CAS #
Fiberglass	65997-17-3
Epoxy Resin	25036-25-3

Exposure Limits:

TLV, TWA ACGIH	OSHA PEL, TWA
10 mg/m3 (dust)	15 mg/m3 (total dust) 5 mg/m3 (respirable)
N/A	N/A

Dust generated during grinding, cutting, or drilling fiber glass reinforced plastic contains respirable fiber shaped plastic (organic) particles which has an OSHA PEL of 5 mg/m3 and no respirable fibrous glass dust regulated by OSHA as noted above. Bromine may be an integral part of the polymer matrices of some laminate grades.



SECTION 4: First Aid Measures

Eyes	Immediately wash the eyes with large amounts of water for at least 15 minutes, occasionally lifting the lower and upper lids. Get medical attention immediately. Contact lenses should not be worn when working with this material.
Skin	Immediately wash the contaminated skin with soap and water. If redness, itching or a burning sensation develops, get medical attention.
Inhalation	Immediately move the exposed person to fresh air. If not breathing give artificial respiration and get immediate medical attention.
Ingestion	If large quantities have been swallowed, DO NOT INDUCE VOMITING. If victim is conscious and alert, give 2 - 4 cups of lukewarm water. Get medical attention immediately.

SECTION 5: Firefighting Measures

Flash Point	N/D
Flammability Classification OSHA/NFPA	Flash Pt. <00oF Class: Solid
Extinguishing Media	Carbon dioxide, water, foam.
Unusual Fire and Explosions Hazards	Isolate fire area and deny unnecessary entry. Fire fighters should wear positive-pressure self-contained breathing apparatus (SCBA) and protective clothing. Dust from machining and fabrication operations may be explosive if mixed with air in critical proportions in the presence of an ignition source. Heat from fire can generate decomposition products that may cause a health hazard.

SECTION 6: Accidental Release Measure

Small Spills	Contain and manage dust during manufacturing. If collected dust is spilled from collection container sweep up spilled material using water spray to suppress the dust. Shovel into suitable disposal container. Eliminate all ignition sources.
Large Spills	Eliminate all ignition sources. Sweep up spilled material using water spray to suppress dust. Transfer to proper containers for disposal. Persons not wearing protective equipment should be excluded from the area of spill until cleanup has been completed.

SECTION 7: Handling and Storage

Store material in a clean, cool, ventilated area away from all sources of ignition. Dust generated during normal manufacturing operations can represent both a health hazard and a fire hazard. Use dust control equipment at the point of generation in machining and sawing operations. Wash hands and other exposed areas thoroughly after handling and wash soiled clothing before reuse.

SECTION 8: Exposure Controls/Personal Protection

Eye Protection	Minimize dust generating activities. Wear safety goggles with side shield or face shield. Contact lenses must not be worn.
Skin Protection	Wear gloves to protect against sharp edges and thermal effects when handling heated material. To prevent repeated or prolonged skin contact, wear impervious clothing and boots.
Respiratory Protection	If personal exposure cannot be controlled below applicable limits (See Section 2) by area ventilation, wear a properly fitted particulate respirator approved by NIOSH/MSHA for protection against dust.
Ventilation	General area ventilation is acceptable if the exposure is maintained below applicable exposure limits. (See Section 2) Use local exhaust for sawing and machining operations.
Other Precautions	Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

SECTION 9: Physical and Chemical Properties

% Volatile Content by Weight	<0.05%
Specific Gravity (gm/cc)	1.6
Melting Point	N/A
Freezing Point (OC)	N/A
Vapor Pressure (mm Hg)	N/A
Solubility in Water	Insoluble
Vapor Density (Air=1)	N/A
Appearance and Odor	Yellow to light green solid

SECTION 10: Stability and Reactivity

Stability	Stable
Conditions to Avoid	Protect from heat, sparks, flame and possible sources of ignition.
Incompatibility	Avoid contact with strong acids and bases
Hazardous Decomposition Products	Carbon dioxide, carbon monoxide, bromine and other hazardous gases. These gases and other volatiles may be generated under normal processing conditions.
Hazardous Polymerization	Will Not Occur!

SECTION 11: Toxicological Information

<u>Acute Toxicity:</u>	
Component Tested	Glass Fiber (continuous filament)
Oral LD50 (rat)	N/D
Dermal LD50 (rabbit)	N/D
Inhalation LC50 4hr (rat)	N/D

SECTION 12: Ecological Information

Not biodegradable.

SECTION 13: Disposal Considerations

RCRA: This product, if disposed as shipped, is not considered a hazardous waste as specified in 40 CFR 261. Dispose of in accordance with all applicable federal, state and local regulations. Generation of particulates during machining and fabricating operations may be subject to Federal and State Air Pollution Control Laws.

SECTION 14: Transport Information

This product, if offered for shipment, is not regulated by USDOT 49 CFR Parts 171 - 180: Regulation of Hazardous Materials Transportation in Commerce.

Shipping Information N/A

Classification N/A

Identification N/A

Packing Group N/A

Label N/A

NOT REGULATED AS HAZMAT

SECTION 15: Regulatory InformationRegulations Governing Product:

Inventory Status: United States (TSCA) - All ingredients are on the inventory or exempt from listing.

SARA TITLE III

EPCRA 302 EHS Extremely Hazardous Substance Reporting: N/A

EPCRA 311/312 Tier II Chemical Inventory Reporting: N/A

Regulations Governing Ingredients:

Chemical Name

CAS #/Chemical Category

CERCLA RQ

SARA TITLE III EPCRA 313 RQ

SECTION 16: Other Information

REFERENCES

CRC Press: Handbook of Chemical and Physical Constants by David R. Lide

Merck & Company: The Merck Index

Sigma-Aldrich Company: Aldrich Handbook of Fine Chemicals

Dictionary of Toxicology by Robert Lewis

US Department of Commerce, Center for Disease Control, National Library of Medicine TOXNET

US Department of Transportation, Research and Special Programs Administration: Hazardous

Materials Table, Special

Provisions, Hazardous Materials Communications, Emergency Response Information, and Training Requirements