



SAFETY DATA SHEET RetroFoam Resin

1. Identification of the Substance/Preparation and Company/Undertaking

Product name : RetroFoam
Use of the substance/preparation : Resin for Foam in Place Insulation
Supplier : PolyMaster, Inc., 10523 Lexington Drive, Knoxville, Tennessee, USA
 Tel, 1-865-966-3005 Fax. 1-865-675-3300
e-mail address of person : carleton@polymaster.com responsible for this SDS
Emergency telephone : 1-800-580-FOAM number

2. Hazards Identification

The product is not classified as dangerous according to Directive 1999/45/EC and its amendments.

See section 11 for more detailed information on health effects and symptoms.

3. Composition/Information on Ingredients

Classification : Not classified.
Physical/chemical hazards : Combustible. Fine dust clouds may form explosive mixtures with air
Additional hazards : Handling or disposing of this material may generate dusts which can cause mechanical irritation of the eyes, skin, nose and throat.
Substance/preparation : Preparation
Chemical characterization : Urea formaldehyde plastic resin.

	CAS Number	%	EC Number	Classification
Silicic acid, aluminum sodium salt...%	1344-00-9	1-5	215-684-8	Not classified. [2] Carc. Cat. 3; R40 T; R23/24/25 C; R34 R43 [1] [2]
Formaldehyde ...% See section 16 for the full text of the R-phrases declared above	50-00-0	0.1-0.2	200-001-8	

There are no ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit Occupational exposure limits, if available, are listed in section 8.

4. First-aid Measures

Inhalation : Move exposed person to fresh air. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire,

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symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

- Ingestion** : Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Get medical attention if symptoms occur.
- Skin contact** : Wash contaminated skin with soap and water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.
- General** : Move the victim to a safe area as soon as possible. If unconscious, place in recovery position and seek medical advice. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. Allow the victim to rest in a well-ventilated area.
- Protection of First-aiders** : No action shall be taken involving any personal risk or without suitable training.

See section 11 for more detailed information on health effects and symptoms.

5. Fire-fighting Measures

- Suitable response materials** : Use alcohol-resistant foam or water spray (mist).
- Special exposure hazards** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
- Hazardous combustion products** : Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides metal oxide/oxides Aldehydes, oxides of nitrogen
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. Accidental Release Measures

- Personal precautions** : Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing dust. Provide adequate ventilation. Put on appropriate personal protective equipment (see section 8).
- Large spill** : Avoid the creation of dusts when handling foam insulation. Contain and collect damaged foam with a vacuum cleaner. Foam residuals are considered non-hazardous for disposal. Check with local regulations (see section 13). Note: see section 1 for emergency contact information and section 13 for waste disposal.
- Small spill** : Move containers from spill area. Vacuum or sweep up material and place in a designated, labeled waste container. Use spark-proof tools and explosion-proof equipment

7. Handling and Storage

- Handling** : Avoid contact with eyes, skin and clothing. Avoid breathing dust. Fine dust clouds may form explosive mixtures with air. Prevent dust accumulation. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Avoid creating dusty conditions and prevent wind dispersal. Take precautionary measures against electrostatic discharges. Ground all equipment containing material.
- Storage** : Store in a segregated and approved area. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Keep container dry. Use appropriate containment to avoid environmental contamination. Store away from incompatible materials (see section 10). Keep away from food, drink and animal feeding stuffs.
- Packaging materials recommended** : Use original container.

8. Exposure Controls/Personal Protection

Ingredient name	Occupational exposure limits
Silicic acid, aluminum sodium salt...%	EH40/2005 WELs (United Kingdom (UK), 8/2007). TWA: 2 mg/m ³ 8 hour(s).
Formaldehyde ...%	EH40/2005 WELs (United Kingdom (UK), 8/2007). STEL: 2.5 mg/m ³ 15 minute(s). STEL: 2 ppm 15 minute(s). TWA: 2.5 mg/m ³ 8 hour(s). TWA: 2 ppm 8 hour(s).

- Recommended monitoring Procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to European Standard EN 689 for methods for the assessment of exposure by inhalation to chemical agents and national guidance documents for methods for the determination of hazardous substances.
- Occupational exposure controls** : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. Use explosion-proof ventilation equipment..
- Respiratory protection** : Wear appropriate respirator when ventilation is inadequate. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
- Recommended : multi-gas/vapour and particulate filter : organic vapour (Type A) and acid gas (Type E) and particulate filter .
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- Hand protection** : Use chemical-resistant, impervious gloves.
Recommended : butyl rubber , nitrile rubber , PVC ..
- Eye protection** : If operating conditions cause high dust concentrations to be produced, wear safety glasses or dust goggles.
- Skin protection** : Avoid contact with skin. Wear suitable protective clothing.
- Environmental protection** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

9. Physical and Chemical Properties

Appearance

- Physical state** : Solid. [Powder]
- Color** : White.
- Odor** : Formaldehyde (slight)

Important Health, Safety and Environmental Information

- pH** : 7.5 to 8.5 [Conc. (%w/w) 67%]
- Solubility** : Easily soluble in water.
- Explosion hazard** : Fine dust clouds may form explosive mixtures with air.

10. Stability and Reactivity

- Stability** : The product is stable.
- Conditions to avoid** : Nuisance dusts can be generated when handling dry or off-specification foam insulation. Avoid the creation of dust when handling.
- Materials to avoid** : No known incompatibilities. May decompose in presence of strong oxidizers.
- Hazardous decomposition** : Under normal conditions of use, hazardous decomposition products should not be produced. Formaldehyde may be released during processing.

11. Toxicological Information

Acute Toxicity

Product/Ingredient Name	Test	Species	Dose	Exposure
Formaldehyde...%	LD50 Dermal	Rabbit	270 mg/kg	-
	LD50 Oral	Rat	100 mg/kg	-
	LC50 Inhalation Gas.	Rat	250 ppm	4 hours

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Potential Acute Health Effects

- Inhalation** : Vapor may be irritating to eyes and respiratory system. Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
- Skin contact**
- Eye contact** : May cause allergic skin reactions with repeated exposure.
- : Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.

Potential Chronic Health Effects

- Chronic effects** : Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.
- Over-exposure signs/symptoms**
- Inhalation** : Adverse symptoms may include the following: respiratory tract irritation coughing
- Eyes** : Adverse symptoms may include the following: irritation redness

12. Ecological Information

Environmental Effects

: The foam insulation is not classified as dangerous according to directive 1999/45/EC and its amendments

Aquatic Ecotoxicity

Product/ingredient name	Test	Result	Species	Exposure
Formaldehyde...%		Acute EC50 5800 ug/L Fresh water	Daphnia - Water flea - Daphnia pulex - Neonate - <24 hours	48 hours
		Acute LC50 1.41 ppm Fresh water	Fish - Rainbow trout, donaldson trout - Oncorhynchus Mykiss	96 hours
		Acute LC50 330000 to 1000000 ug/L Marine water	Crustaceans - Common shrimp, sand shrimp - Crangon crangon - LARVAE	48 hours

Biodegradability			
Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Formaldehyde ...%	--	--	--
Bioaccumulative Potential			
Product/ingredient	LogPow	BCF	Potential

name			
Formaldehyde ...%	0.35	--	low

13. Disposal Considerations

- Methods of Disposal** : Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor.
- European Waste Catalog (EWC)** : 08 04 10 waste adhesives and sealants other than those mentioned in 08 04 09
- Hazardous Waste** : Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 91/689/EEC. Cured resin (e.g. solid plastic) is regarded as non-hazardous waste.

14. Transportation Information

	UN Number	Proper Shipping Name	Classes	PG	Label	Additional Information
ADR/RID Class	Not regulated	--	--	--		--
ADN/ADNR Class	Not regulated	--	--	--		--
IMDG Class	Not regulated	--	--	--		--
IATA Class	Not regulated	--	--	--		--

15. Regulatory Information

Classification and labeling have been determined according to EU Directives 67/548/EEC and 1999/45/EC (including amendments) and take into account the intended product use.

- Risk phrases** : This product is not classified according to EU legislation.
- Product use** : Industrial applications.
- Europe inventory** : All components are listed or exempted.
- Additional warning phrases** : Contains formaldehyde ...%. May produce an allergic reaction. Safety data sheet available for professional user on request.

16. Other Information

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Full text of R-phrases : R40- Limited evidence of a carcinogenic effect. referred to in sections 2 and R23/24/25- Toxic by inhalation, in contact with skin and if swallowed. 3 -United Kingdom (UK) R34- Causes burns. R43- May cause sensitisation by skin contact.

Full text of classifications : Carc. Cat. 3 - Carcinogen category 3 **referred to in sections 2 and T - Toxic 3 -United Kingdom (UK)** C – Corrosive

Recommended use and Restrictions : No restrictions need to be observed

History

Date of issue : 12.09.2010

Date of previous issue : No previous validation

Version : 1

^Indicates information that has changed from previously issued version.

Notice to reader: *To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.*

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