



**Material Safety Data Sheet**

**CarbonFoam PU/PIR Foam**

**Revised: May 16, 2018**

**1. Chemical Product / Company Identification**

**Material Identification:** CarbonFoam PU/PIR Foam

**Trade Names**                      **CarbonFoam PU/PIR Foam**

**Company Identification**

**Carbon-Core Corp.**  
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**ISO-C1 Polyisocyanurate Material Safety Data Sheet**

**POLYISOCYANURATE RIGID FOAM PIPE INSULATION,  
MECHANICAL INSULATION, EQUIPMENT INSULATION, AND  
INSULATED PANELS**

*IMPORTANT: Read this MSDS before handling and disposing of this product and pass this information on to employees, customers, and users of this product. This product is covered by the OSHA Hazard Communication Rule and this document has been prepared in accordance with the MSDS requirements of the rule.*

**I. General**

**Trade Name:** ISO-C1 (densities 2, 2.5, 3, 4, 6, and 10 lb/ft<sup>3</sup>)  
**Telephone Number:** (571)332 9903 Virginia USA  
**Other Names:** UNFACED ISO, POLYISO  
**Chemical Name/Family:** POLYISOCYANURATE RIGID FOAM INSULATION  
**DOT Hazardous Materials**  
**Proper Shipping Name:** NOT REGULATED (SEE SUPPLEMENT)  
**Generic Name:** POLYISOCYANURATE  
**DOT Hazard Class:** NOT REGULATED  
**CAS No:** PROPRIETARY  
**Amount:** 100%  
**PEL/TLV:** NOT ESTABLISHED

**II. Summary of Hazards**

**Physical Hazards:**

**Acute Health Effects (Short-Term):** CAN BE A MECHANICAL IRRITANT TO SKIN, EYES, & UPPER RESPIRATORY SYSTEM DURING FABRICATION

**Chronic Health Effects (Long-Term):** STUDIES SHOW NO STATISTICALLY SIGNIFICANT INCREASED RISK OF RESPIRATORY DISEASES

### III. Fire and Explosion

**Flash Point (Method):** UNKNOWN

**Auto-ignition Temperature:** Greater than 450 degrees Centigrade, per ASTM D1929

**Flammable Limits (% Vol. in Air)**

**At Normal Atmospheric Temperature and Pressure: Lower:** N/A **Upper:** N/A

**Fire and Explosion Hazards:** POLYISOCYANURATE FOAM WILL BURN IF EXPOSED TO FLAME OF SUFFICIENT HEAT AND INTENSITY. LIKE OTHER ORGANIC MATERIALS, CAN RELEASE TOXIC SMOKE IF IGNITED.

**Extinguishing Media:** DRY CHEMICAL, CO<sub>2</sub>, WATER SPRAY, WATER FOG, FOAM, WATER

**Special Firefighting Procedures:** SELF-CONTAINED BREATHING APPARATUS, dense smoke is emitted when polyisocyanurate foam is burned in an oxygen starved environment.

**Unusual Fire Hazards:** Cutting, grinding and sawing can cause the formation of dust. To reduce the potential of dust explosions, do not permit dust to accumulate, provide adequate ventilation and practice good housekeeping procedures.

The compaction of polyisocyanurate foam for disposal can entrap pentane in pockets of the compressed foam or at the bottom of the compactor. Appropriate engineering of the compactor is recommended to keep pentane levels below the LFL levels and to remove potential ignition sources caused from metal to metal contact in the compactor.

### IV. Health Hazards

**Summary of Acute Hazards:** SLIGHT. SEE BELOW ROUTE OF EXPOSURE SIGNS AND SYMPTOMS

**Inhalation:** Dust may cause irritation to the upper respiratory tract (nose and throat). NO SIGNIFICANT SIGNS OR SYMPTOMS INDICATIVE OF ANY ADVERSE HEALTH ARE EXPECTED TO OCCUR AS A RESULT OF INHALATION EXPOSURE.

**Eye Contact:** MAY CAUSE MINOR EYE IRRITATION FROM DUST ORIGINATING FROM FABRICATION.

**Skin Absorption:** NO SIGNIFICANT SIGNS OR SYMPTOMS INDICATIVE OF ANY ADVERSE HEALTH HAZARD ARE EXPECTED TO OCCUR AS A RESULT OF SKIN ABSORPTION.

**Skin Irritation:** MAY PRODUCE SLIGHT SKIN IRRITATION.

**Ingestion:** NO SIGNIFICANT SIGNS OR SYMPTOMS INDICATIVE OF ANY ADVERSE HEALTH HAZARD ARE EXPECTED TO OCCUR AS A RESULT OF INGESTION. PRODUCT IS NOT FOR CONSUMPTION.

**Summary Chronic Hazards and Special Health Effects:** THE MAJOR COMPONENTS OF THIS PRODUCT HAVE NOT BEEN IDENTIFIED AS SIGNIFICANT HAZARDS IN LONGTERM STUDIES. NO ADDITIONAL MEDICAL INFORMATION FOUND.

### V. Protective Equipment and Other Control Measures

**Respiratory:** USE NIOSH/OSHA APPROVED PARTICULATE FILTER MASK DURING FABRICATION.

**Eye:** WEAR SAFETY GLASSES OR GOGGLES.

**Skin:** NOT NORMALLY CONSIDERED A SKIN HAZARD. PRACTICE GOOD PERSONAL HYGIENE.

**Engineering Controls:** EXERCISE GOOD HOUSEKEEPING PROCEDURES. REMOVE DUST DURING FABRICATION BY VACUUM.

**Other Hygienic and Work Practices:** PROVIDE ADEQUATE VENTILATION WHEN FABRICATING. REMOVE DUST PROMPTLY.

### VI. Occupational Exposure Limits

Substance	Source	Date	Type	Value/Units	Time
NUISANCE DUST (TOTALS)	OSHA	1989	TWA	15 MG/MS	8 HRS
NUISANCE PARTICULATES	ACGIH	1989	TWA	10 MG/M3	8 HRS
NUISANCE DUST (RESP.)	OSHA	1989	TWA	5 MG/M3	8 HRS

#### VII. Emergency and First Aid

**Inhalation:** REMOVE TO FRESH AIR.

**Eye Contact:** FLUSH WITH WATER FOR 15-20 MINUTES OR UNTIL IRRITATION CEASES.

**Skin Contact:** WASH WITH SOAP AND WATER.

**Ingestion:** IF SWALLOWED, DILUTE WITH WATER. DO NOT INDUCE VOMITING.

**Emergency Medical Treatment Procedures:** PERSONS WHO DEVELOP SYMPTOMS OF ALLERGY, IRRITATION, RESPIRATORY PROBLEMS OR PUFFINESS AROUND THE EYES SHOULD BE EXAMINED BY A PHYSICIAN AS SOON AS POSSIBLE.

#### VIII. Spill and Disposal

**Precautions If Material is Spilled or Released:** NOT APPLICABLE

**Waste Disposal Methods:** DISPOSAL SHOULD BE IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS.

#### IX. Components

*(This may not be a complete list of components)*

**Component Name (%) CAS # Carcinogen**

Modified POLYISOCYANURATE >90 NONE NONE

Polymer

Hydrocarbon blowing agent <10 78-78-4

#### X. Physical and Chemical Data

**Boiling Point:** NOT APPLICABLE

**Viscosity Units, Temp. (Method):** NOT APPLICABLE

**Dry Point:** NOT APPLICABLE

**Freezing Point:** NOT APPLICABLE

**Vapor Pressure:** NOT APPLICABLE

**Volatile Characteristics:** NOT APPLICABLE

**Specific Gravity:** NOT APPLICABLE

**Vapor Specific Gravity :** NOT APPLICABLE

**Solubility in Water:** NOT APPLICABLE

**pH:** NOT APPLICABLE

**Hazardous Polymerization:** NOT EXPECTED TO OCCUR

**Other Chemical Reactivity:** NONE

**Stability:** STABLE

**Other Physical and Chemical Properties:** NONE

**Appearance and Odor:** RIGID TAN CELLULAR PLASTIC. NO ODOR.

**Conditions to Avoid:** OPEN FLAME OR OTHER IGNITION SOURCES. PROLONGED EXPOSURE TO THE ELEMENTS.

**Materials to Avoid:** DIRECT APPLICATION OF HOT ASPHALT.

**Hazardous Decomposition Products (Fire):** *LIKE WOOD AND OTHER ORGANIC MATERIALS CAN RELEASE TOXIC SMOKE IF IGNITED.*

#### **XI. Additional Precautions**

**Handling, Storage and Decontamination Procedure:**

PROTECT FROM MOISTURE. WHEN STORED OUTDOORS, STACK AT LEAST 4" ABOVE GROUND LEVEL AND COVER WITH TARPAULINS OR OTHER SUITABLE COVERING. THIS MATERIAL IS COMBUSTIBLE AND SHOULD NOT BE EXPOSED TO FLAME OR OTHER IGNITION SOURCES, REFER TO FIRE AND EXPLOSION RISKS (SECTION III IN THIS MSDS). THE ACGIH LISTING FOR HYDROCARBON BLOWING AGENTS HAVE A TIME WEIGHTED AVERAGE OF 600 PPM. NO SMOKING, OPEN FLAMES OR SOURCES OF IGNITION IN HANDLING AND STORAGE AREA. FABRICATION METHODS WHICH INVOLVE CUTTING INTO THIS PRODUCT MAY RELEASE THE BLOWING AGENT REMAINING IN THE DAMAGED CELLS. PROVIDE ADEQUATE VENTILATION TO ASSURE LOCALIZED CONCENTRATIONS OF THE BLOWING AGENT ARE MAINTAINED BELOW THE LFL (LOWER FLAMMABILITY LIMIT)

**General Comments:** *SOME OF THE INFORMATION PRESENTED AND CONCLUSIONS DRAWN HEREIN ARE FROM SOURCES OTHER THAN DIRECT TEST DATA ON THE PRODUCT ITSELF.*

#### **XII. Regulatory Information**

This product is not a "Hazardous Chemical" as defined by the OSHA Hazard Communication standard, 29 CFR 1910.1200

**a. SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 (SARA), TITLE III EXEMPT. APPENDIX H(4) SECTION 1910, 1200(b) AS A MANUFACTURED ITEM a), b), c), AND SECTION 311(e) #10.**

**b. TOXIC SUBSTANCES CONTROL ACT (TSCA)**  
*ALL COMPONENTS OF THIS PRODUCT ARE LISTED ON THE TSCA INVENTORY.*

**c. COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION AND LIABILITY ACT (CERCLA)**  
*NO CHEMICALS IN THIS PRODUCT ARE SUBJECT TO THE REPORTING REQUIREMENTS OF CERCLA.*

#### **XIII. Supplement**

<u>SHIPPING</u>	<u>REGULATIONS</u>
<i>NOT CLASSIFIED AS A HAZARDOUS MATERIAL BY DEPARTMENT OF TRANSPORTATION</i>	
<i>DEFINITIONS</i>	<i>AND HENCE IT IS NOT REGULATED.</i>
<u>DISCLAIMER</u>	<u>OF LIABILITY</u>
<i>THE INFORMATION IN THIS MSDS WAS OBTAINED FROM SOURCES WHICH WE BELIEVE ARE RELIABLE. HOWEVER, THE INFORMATION IS PROVIDED WITHOUT ANY WARRANTY, EXPRESS OR IMPLIED, REGARDING ITS CORRECTNESS. THE CONDITIONS OR METHODS OF HANDLING, STORAGE, USE AND DISPOSAL OF THE PRODUCT ARE BEYOND OUR CONTROL AND MAY BE BEYOND OUR KNOWLEDGE. FOR THIS AND OTHER REASONS, WE DO NOT ASSUME RESPONSIBILITY AND EXPRESSLY DISCLAIM LIABILITY FOR LOSS, DAMAGE OR EXPENSE ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE HANDLING, STORAGE, USE OR DISPOSAL OF THIS PRODUCT.</i>	

#### **Additional Information**

**Label Statements:**

**LOW HAZARD FOR USUAL INDUSTRIAL OR COMMERCIAL HANDLING**

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To the best of our knowledge, the information contained herein is accurate. However, Carbon-Core Corporation assumes no 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 present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.