FANILO

HNBR-R-2275 MATERIAL SAFETY DATASHEET

SECTION 1: IDENTIFICATION OF SUBSTANCE

Product Identifier : Identification on the label/ Trade name: HNBR-R-2275 Series - Recycled HNBR

Manufacturer : Manufactured by Fanilo Incorporated

Hsinchu Factory: No. 23, Ln. 434, Sec. 4, Zhonghua Rd., Xiangshan Dist., Hsinchu City 30094, Taiwan

Relevant Identified Uses of the Substance and Uses Advised Against

Identified Uses:

Recycled HNBR sheets use as filler for blending with HNBR virgin rubber compounds to maintain same performance.

Uses Advised Against:

Other elastomer rather than sulfur/sulfur-donor cure systems HNBR, e.g., peroxide-cured HNBR, FKM, EPDM etc.

SECTION 2: HAZARDS IDENTIFICATION

Classification of the Substance or Mixture :

Classification:

This product is not classified as hazardous according to the Regulations for the Labeling and Safety Data Sheets for Toxic and Concerned Chemical Substances in Taiwan.

Label Elements:

- Hazard Pictograms: Not Applicable.
- Signal Word(s): Not Applicable.
- Hazard Statement: Not Applicable.
- Precautionary Statement: Not Applicable.

Precautionary Statements :

Prevention:

- Keep away from heat, sparks, and open flames.
- Avoid contact with strong oxidizing agents.
- Store in a cool, well-ventilated place.
- Use appropriate engineering controls to minimize exposure.
- Wear appropriate personal protective equipment (PPE), including gloves and eye/face protection.

Response:

- In case of skin contact, wash with plenty of water and soap.
- In case of eye contact, rinse cautiously with water for several minutes.
- If exposed to fumes, move to fresh air immediately.
- If ingested, seek medical attention.

Storage:

- Store in a tightly closed container.
- Keep away from incompatible materials.
- Store away from direct sunlight and heat sources.

Disposal: Dispose of in accordance with local, regional, and national regulations.

Other Hazards: Not available.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

Substance/Mixture : Recycled HNBR is specifically engineered for blending with HNBR rubber compounds to ensure consistent performance. The decision to include additional fillers or crosslinkers is left to your discretion and should be assessed based on your or customer's specific requirements.

Ingredients : HNBR-R-2275 is derived from a blend of authentic HNBR waste, such as sprue, runners, flash, and scraps. After undergoing the recycling process, they become perfectly suitable for use in HNBR rubber compounds.

Chemical Description	CAS NO.	Amount
Carbon Black	1333-86-4	14%
Zinc Oxide	1314-13-2	<5%

SECTION 4: FIRST-AID MEASURES

Description of First Aid Measures :

In Case of Inhalation: HNBR-R-2275 is provided in sheet form and does not produce easily inhalable small particles. However, if the manufacturing process involves grinding or transforming the product into fine particles, and if inhalation occurs, it is essential to promptly relocate the affected person to an area with fresh air. If recovery is not rapid, obtain medical attention.

In Case of Skin Contact: Wash the affected parts with soap and water. No emergency measures are necessary, but if adverse skin effects follow, refer for medical attention.

In Case of Eye Contact: Flush eyes immediately with clean, fresh water for a minimum of 15 minutes, holding the eyelids open. If adverse eye effects follow, refer for medical attention.

In Case of Ingestion: Do not induce vomiting. If adverse health effects follow, refer for medical attention.

Most Important Symptoms and Effects, Both Acute and Delayed:

Respiratory Irritation: Inhalation of airborne particles from HNBR-R-2275 may cause respiratory irritation, leading to symptoms such as coughing, sneezing, or difficulty in breathing.

Delayed Effects: Exposure to HNBR-R-2275 may lead to delayed allergic reactions in individuals who are hypersensitive to HNBR compounds. This could include skin rashes, itching, or other allergic symptoms.

Indication of Any Immediate Medical Attention and Special Treatment Needed:

No specific requirement.

SECTION 5: FIRE-FIGHTING MEASURES

General Restrictions : When the solid material reaches or exceeds its flash point (>230°C), it can ignite. In the event of thermal decomposition, there is a possibility of releasing flammable or toxic gases. Combustion of this material can generate toxic gases. Combustion may produce a pungent odor and smoke that can lead to fire hazards and eye irritation.

Extinguishing Media	:	On large fires use dry chemical, foam, or water spray. On small fires use carbon dioxide (CO2), dry chemical or water spray. Water can be used to cool fire exposed containers.
Specific Hazards Arising from the Substance or Mixture	:	Toxic by-products, during a fire, irritating and highly toxic gases may be generated during combustion or decomposition.
Advice for Firefighting Measures	:	Self-contained breathing apparatus and protective clothing should be worn in fighting large fires involving chemicals. Determine the need to evacuate or isolate the area according to your local emergency plan. Use water spray to keep fire exposed containers cool.
Products of Combustion	:	May produce carbon monoxide (CO) and irritating fumes under lack of oxygen conditions.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures	:	**For Non-Emergency Personnel:** Avoid sources of ignition and ventilate the area. Exclude all non-essential personnel. Avoid breathing the dust or smoke. **For Emergency Responders:** Ensure personnel wear suitable PPE, including gloves and safety goggles to protect against potential exposure.
Environmental Precautions	:	Consider recycling and sustainable practices for managing HNBR-R-2275 waste. HNBR-R-2275 is designed to be recycled again in an infinite cycle, so explore options for reusing or recycling the material rather than discarding it.
Methods of Containment and Cleaning Up	:	Use barriers or absorbent materials to encircle and isolate the spilled material. Carefully collect the material using non-sparking tools or equipment and place it into appropriate containers, ensuring proper labeling. Avoid creating dust or airborne particles.
Reference to Other Sections	:	• See Section 7 for information on safe handling. • See Section 8 for information on personal protective equipment. • See Section 13 for information on disposal.

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling	:	Precautions should be taken to maintain safe handling practices for HNBR-R-2275. Adhering to good housekeeping standards and ensuring the regular, safe removal of waste materials will minimize risks related to spontaneous combustion and other fire hazards. The use of standard hand and eye protection remains advisable, especially in cases involving manual handling. Please be aware of any regulations, including the Occupational Safety and Health Act that may apply to the handling of

containers of this product, and refer to the guide weight indicated on the container when conducting assessments. It's important to follow all relevant safety regulations and guidelines specific to your product to ensure safe handling and storage practices.

Conditions for Safe Storage, Including Any Incompatibilities : Store in a dry place, avoiding sources of heat or ignition. Suggested storage temperature is below 38°C.

Specific End Use(s) : Contact our team for advice on specific end uses or applications.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters : National critical values are yet to be formally established.

Exposure Controls : **Appropriate Engineering Controls:** Implement local exhaust ventilation systems to minimize airborne dust or particles.

Individual Protection Measures: Due to potential exposure to ambient temperatures ranging from -18°C to 38°C (0°F to 100°F) in open systems, it is advisable to wear safety goggles. When handling heated materials, it is essential to use heat-resistant gloves, sleeves, and face masks for personal protection.

Environmental Exposure Controls: Avoid wind or airborne dispersal.

Emergency Response: Establish procedures for handling respiratory protection in emergencies.

Regulatory Compliance: Comply with local, national, and international regulations governing respiratory protection.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on Basic Physical and Chemical Properties :

Property	Value
Appearance	Solid, in sheet form
Physical state	Solid
Colour	Customizable, typically in Black or Brown
Odour	Odorless
pH	6.0-10.0
Water Solubility	No
Flash Point (°C)	>230°C
Evaporation Rate	Not determined
Flammability Limits in Air	Not determined
Auto Ignition Temperature	Not determined
Vapour Pressure	Not determined
Liquid Viscosity	Not determined
Freezing/Melting Point	Not determined
Boiling Point	Not determined

Physical Hazards : **Eye Contact:** Particles can scratch the eye surface/lead to physical stimuli.

Skin Contact: Exposed to hot material may cause thermal burns.

Ingestion: At ambient temperatures (-18-38°C / 0-100°F), ingestion is not considered dangerous.

Inhalation: Not dangerous in normal industrial use.

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SECTION 10: STABILITY AND REACTIVITY

Reactivity	:	Not classified as a reactivity hazard.
Chemical Stability	:	Stable under recommended handling and storage conditions.
Possibility of Hazardous Reactions	:	Avoid strong oxidizing agents.
Materials and Conditions to Avoid	:	Unless oxygen is eliminated from the storage area or additional antioxidants are introduced into the rubber compound, it is strongly recommended not to exceed a temperature of 230°C during heating. Exceeding this temperature threshold may result in decomposition of the product.
Incompatible Materials	:	Strong oxidizing agents, strongly alkaline materials, Aluminum and Magnesium.
Hazardous Decomposition Products	:	Smoke, soot, and toxic/irritating fumes, carbon dioxide, carbon monoxide, SO2, HCN, amine decomposition, etc.

SECTION 11: TOXICOLOGICAL INFORMATION

Information on Toxicological Effects :

Acute Toxicity: HNBR-R-2275 is not typically associated with acute toxicity when used as intended. It is not expected to cause immediate harm upon contact or ingestion.

Chronic Toxicity: Prolonged or repeated exposure through skin contacts or inhalation of dust or fumes is not known to cause chronic toxicity.

Irritation: Not expected to cause skin or eye irritation. It is generally considered non-irritating.

Sensitization: It is not known to be a skin sensitizing agent.

Carcinogenicity: No evidence to suggest that HNBR-R-2275 is carcinogenic.

Reproductive Toxicity: No evidence to suggest reproductive toxicity is associated.

Mutagenicity: Not considered mutagenic.

Toxicological Effects of Overexposure: Prolonged exposure to high temperatures or thermal decomposition products may result in the release of potentially toxic gases. It is important to avoid such overexposure.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity	:	Not classified as hazardous to the environment.
Persistence and Degradability	:	Biodegradation data not available.
Bio accumulative Potential	:	Not expected to bioaccumulate.
Mobility in Soil	:	Low mobility in soil.
Results of PBT and vPvB Assessment	:	Not classified as persistent, bioaccumulative, and toxic (PBT) or very persistent and very bioaccumulative (vPvB).
Other Adverse Effects	:	No data available.

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SECTION 13: DISPOSAL CONSIDERATIONS

Waste Treatment Methods	:	**Product Waste:** Dispose of in accordance with local, regional, and national regulations. Consider recycling options wherever possible. **Packaging Waste:** Dispose of packaging in accordance with local regulations, considering recycling and recovery options.
Recommendations	:	Contact licensed waste disposal services for proper disposal methods.

SECTION 14: TRANSPORT INFORMATION

UN Number	:	Not applicable.
UN Proper Shipping Name	:	Not applicable.
Transport Hazard Class(es)	:	Not classified as a hazardous material.
Packing Group	:	Not applicable.
Environmental Hazards	:	Not classified as hazardous to the environment.
Special Precautions for User	:	ensure that the packaging is intact to prevent leakage or damage. Avoid contact with moisture or humidity to maintain product quality.
Transport in Bulk According to Annex II of MARPOL and the IBC Code	:	Not applicable.
Transport Considerations:	:	Adhere to international and local regulations, including those related to the transport of goods and hazardous materials, where applicable. Ensure the safety and compliance of the product during the transport process.

SECTION 15: REGULATORY INFORMATION

Safety, Health, and Environmental Regulations/Legislation Specific for the Substance	:	Comply with applicable local, national, and international regulations.
Chemical Safety Assessment	:	No chemical safety assessment has been carried out.

SECTION 16: OTHER INFORMATION

Date of Issue	:	2023/11/16
Review Date	:	2024/11/19
Revision	:	2024/8/26
Prepared by	:	Hank Fan
Additional Information	:	This MSDS summarizes to our best knowledge the health and safety hazards information of the product and how to safely handle and use the product in the workplace. The information contained herein is offered in good faith, but no warranty, expressed or implied, is made. We disclaim any

responsibility for losses or damages that may occur because of using the information provided and do not assume any warranties for violations.

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