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Material Safety Data Sheet Bite-Bumper

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

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2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name CAS Number

Polyarylamide 25718-70-1 Glass fiber 65997-17-3 Polyamide Proprietary Talc 14807-96-6 Copolymer rubber Proprietary Carbon black 1333-86-4

3. HAZARDS IDENTIFICATION

- Possibility of an ingestion hazard to wildlife.
- The granular form of the material is not likely to become airborne, but dust exposures can still result from loose fines and or by mechanical shear processes such as grinding.

Main effects -Hazard due to contact with product at high temperature:

- Inhalation In case of repeated or prolonged exposure: risk of bronchitis (fiber glass).
- Eyes contact Mechanical irritation from the particulates generated by the product.
- Skin contact Risk of itching of the skin/dermatitis (fiber glass).
- Ingestion Risk of moderate consequences experimentally observed or under certain conditions.

4. FIRST-AID MEASURES

First aid for raw materials only

- Inhalation Remove the subject from dusty environment.
- Eyes contact Flush eyes with running water for several minutes, while keeping the eyelids wide open. Consult with an ophthalmologist in case of persistent pain.
- Skin contact Wash the affected skin with running water.
 - Obtain medical treatment for burns.
- Clean clothing- In case of contact with molten polymer: cool rapidly with cold water without attempting to peel it from skin.
- Ingestion -If the subject is completely conscious: Negligible -If the subject is unconscious: - Not applicable

5. FIRE-FIGHTING MEASURES

Flammability - Not applicable

Remark: Class of combustion: B92 (Short ignition and quick extinction).

Auto Flammability ca. 400 C

Danger of explosion

- Remark: Class of dust explosion: ST1 (weakly explosive and only under specific conditions).

- Remark: In particular conditions, gases/vapors resulting from the combustion may cause flash fires or explosions.
- Common extinguishing means
- Powder
 - Foam, AFFF.
 - CO2
 - Water spray

Inappropriate extinguishing means

- No restriction.
- Specific hazards
- Combustible
- In a fire, the polymer melts, producing drops which may propagate fire.
- A started combustion tends to smother (see section 9).
- Formation of dangerous gas/vapors in case of combustion.

Protective measures in case of intervention

- Wear self contained breathing apparatus when in close proximity or in confined spaces.
- Fire fighters must wear fire resistant personnel protective equipment.
- When intervention in close proximity wear acid resistant over suit.
- After intervention, proceed to clean the equipment (take a shower, remove clothing carefully, clean and check).

Other precautions

- As for any fire, ventilate and clean the rooms before re-entry.

6. ACCIDENTAL RELEASE MEASURES

Precautions

- Follow the protective measures given in section 8.
- Spilled material can be a slipping hazard.
- Cleanup methods
 - Collect the product with suitable means.
 - Place material into a closed and labelled container.
 - For disposal methods, refer to section 13.
- Precautions for protection of the environment
 - Prevent discharges into the environment (sewers, rivers, soils).

7. HANDLING AND STORAGE

- Handling Use electrically conductive materials for piping circuits and equipment.
- Storage Negligible

Other precautions

- Avoid heating the product above the decomposition temperature (see section 9).
- Grounded equipment.
- No open flames or sparks, no smoking.
- Prevent electrostatic discharges.
- Avoid dust and formation of dust clouds.
- Follow the protective measures given in section 8.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls

- Provide local ventilation suitable when product handling at high temperature and for the product decomposition risk. (See section 10).
- Maintain employee exposures to levels below the applicable exposure limits.
- Follow the protective measures given in section 7.

Component CAS # Exposure Limit

Polyarylamide (CAS# 25718-70-1) ACGIH TLV 10 mg/m3 (particulates not otherwise classified) Glass Fiber (CAS# 65997-17-3) ACGIH TLV TWA 5 mg/m3 Polyamide Proprietary No exposure limit established Talc (CAS# 14807-96-6) ACGIH TLV TWA 2 mg/m3 Copolymer rubber Proprietary No exposure limit established

Carbon Black (CAS# 1333-86-4) ACGIH & OSHA TWA 3.5 mg/m3

Respiratory protection

- In case of dust clouds, use NIOSH approved dust respirator

- In case of decomposition, self-contained breathing apparatus.
- Use only respiratory protection that conforms to international/ national standards.
- Hand protection
 - Protective gloves for protection against hot material.

Eye protection

- Protective goggles/face shield, if appropriate.
- Skin protection
 - Overalls

Other precautions

- Consult the industrial hygienist or the safety manager for the selection of personal protective equipment suitable for the working conditions.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Granulates Odor: Odourless Change of state: - Melting point/range: ca. 235 °C - Boiling point/range (1013 mbars): Not applicable - Remark: Decomposition Density: - Specific gravity = 1,650 kg/m3- Bulk density $\geq 0.5 \text{ kg/dm3}$ Solubility: - Insoluble in water - Soluble in - Hot organic solvents - Strong acids - m-Cresol - Formic acid Decomposition temperature - No data

Remark: -Extended period of exposure (ca. 1 hour).

10. STABILITY AND REACTIVITY

Stability: -Stable under normal conditions of use (see section 7).

Conditions to avoid

- Heating the product to its decomposition temperature (see section 9).
- Naked flames, sparks.

Materials to avoid

- Negligible Hazardous decomposition products - Light hydrocarbons

- Carbon monoxide
- Particulates of carbon
- Hydrocyanic acid.
- Nitrogen oxide(s)
- Ammonia

11. TOXICOLOGICAL INFORMATION

Specific toxicity tests have not been conducted on this product. Our hazard evaluation is based on information from similar products, the ingredients, technical literature, and/or professional experience.

Dense dust generated by the handling or processing of this material may be irritating to the eyes, skin, nose and throat.

This product contains continuous filament fiber glass. Fiber glass particulates may be released by the handling and/or processing of this material. Continuous filament fiber glass has been classified by the International Agency for Research on Cancer (IARC) as a Group 3 "not classifiable as to its carcinogenicity to humans." Fiber glass is not expected to produce any acute toxicity except for possible mechanical irritation of the eyes and skin. Chronic studies in laboratory animals indicate that fiber glass does not cause chronic lung damage (cancer, fibrosis, mesothelioma, etc.) Recent epidemiological studies of workers in fiber glass manufacturing plants suggest a small but statistically significant increase in lung cancer in those workers. Those studies apparently did not rule out smoking or other chemical exposure as complicating factors. Long term excessive exposures to talc may cause talcosis and pulmonary fibrosis.

This product may contain carbon black. Carbon black has been shown to cause lung tumors in rats at high exposure concentrations. These concentrations exceed the capacity of the lung to clear the carbon black particles, thus resulting in significant toxicity. The International Agency for Research on Cancer (IARC) has evaluated carbon black and found it to be possibly carcinogenic to humans (Group 2B). Because the components are encapsulated in the resin, possible adverse health effects from exposure are greatly reduced. Dust exposures can still be generated by loose fines or mechanical shear processes (e.g. grinding) which may in turn result in exposures above the applicable exposure limits. This product contains a thermoplastic rubber, which at elevated temperatures may emit vapors which can cause eye, skin and respiratory irritation.

12. ECOLOGICAL INFORMATION

Comments

- Under massive form, product is biologically inert and non-degradable.
- Ingestion of solids may cause harm to wildlife due to intestinal mechanical blockage or starvation from false feeling of satiation.

13. DISPOSAL CONSIDERATIONS

Waste treatment

- Dispose in compliance with local/federal and national regulations.
- It is recommended to contact the producer for recycling/recovery.
- If not possible
- Send the product to an authorized industrial waste incinerator.
- Or
- Dispose of product at a landfill authorized for industrial waste.

Packaging treatment

- Containers that cannot be cleaned must be treated as waste.
- The empty and clean containers are to be reused in conformity with regulations.

14. TRANSPORT INFORMATION

US Department of Transportation Shipping Name - Not Regulated

15. REGULATORY INFORMATION

CERCLA Sections 102a/103 Hazardous Substances (40 CFR Part 302.4). This product is not regulated under Section 40 CFR Part 302.4. SARA Title III Section 302 Extremely Hazardous Substances (40 CFR Part 355). This product is not regulated under Section 302 of SARA and 40 CFR Part 355.

16. OTHER INFORMATION

The information given corresponds to the current state of our knowledge and experience of the product, and is not exhaustive. This applies to product which conforms to the specification, unless otherwise stated. In the case of combinations and mixtures one must make sure that no new dangers can arise. In any case, the user is not exempt from observing all legal, administrative and regulatory procedures relating to the product, personal hygiene, and protection of human welfare and the environment.