Nitrile Butadiene Rubbers

This document provides a brief description of Nitrile Butadiene Rubbers (NBR), as represented by KRYNAC® 3330 F, its uses, and the potential hazards associated with short and long term exposure. Environmental impact information for accidental releases is included. This information is general in nature and is not intended as a replacement for the safety data sheet (SDS), product label and other safe handling literature. For additional information consult the LANXESS Corporation safety data sheet.

Identification

Chemical Name: Nitrile Butadiene Rubbers
Synonym(s): NBR

Description

Overview: Nitrile Butadiene Rubbers are sold under the trade name, KRYNAC®. Nitrile Butadiene Rubber is a yellow to brown solid at ambient temperatures. The product has a slight odor and is sold in bales.

Uses: Nitrile Butadiene Rubber is an oil-resistant acrylonitrile-butadiene copolymer sold by LANXESS for use in the manufacture of hoses, seals, grommets, rollers, fabrics and belts for automotive and industrial applications.

Properties:
- Auto-ignition: >300°C (>572°F)
- Solubility in Water: Insoluble
Potential Human Health Effects

Occupational Exposure
Potential for occupational exposure exists during manufacture, at unloading, storage and staging areas and during processing operations at facilities where Nitrile Butadiene Rubber is used in the manufacture of other products. A much lower potential for exposure exists in facilities using Nitrile Butadiene Rubber in closed manufacturing processes by trained personnel.

Employee Training
Workers handling Nitrile Butadiene Rubber should be trained to implement proper handling procedures and to understand the potential health and physical hazards of this product. LANXESS recommends long pants, a long-sleeved shirt, gloves and suitable protective footwear be worn when handling Nitrile Butadiene Rubber. Workers handling hot material should wear heat-resistant protective gloves that are able to withstand the temperature of the molten product. Safety glasses with side shields should be worn if eye contact is possible. Selection and use of a respirator must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. Thermal processing operations should be ventilated to control gases and fumes given off during processing.

Consumer Exposure
LANXESS Corporation does not sell Nitrile Butadiene Rubber to the general public.

Short-Term Health Effects
Skin contact with heated Nitrile Butadiene Rubber may cause thermal burns. Prolonged or repeated exposure may cause redness, itching, swelling, burning and possible permanent skin damage.

Long-Term Health Effects
No long-term adverse health effects are expected.

Physical Hazards
Nitrile Butadiene Rubber is stable under normal conditions of use. Heating to decomposition may release carbon monoxide, carbon dioxide, nitrogen oxides and other potentially toxic gases or fumes. Avoid heat, open flames and other potential sources of ignition.

Potential Environmental Impact
Nitrile Butadiene Rubber is not readily biodegradable. No significant effects or critical hazards would be expected from an accidental release of this product to the environment. The chemical compound has a high potential for bioaccumulation.
Conclusion

Under normal conditions of anticipated use as described in this Product Safety Assessment, and if the recommended safe use and handling procedures are followed, Nitrile Butadiene Rubber is not expected to pose a significant risk to human health or the environment.

References

Product Data Sheet, KRYNAC® 3330 F, LANXESS Corporation
Safety Data Sheet (SDS), KRYNAC® 3330 F, LANXESS Corporation

Contact Information

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Notices

Use and Application Information

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