

HYDRO SEALING TECHNOLOGY SDN BHD (426172-P)

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HYDRO
House of Seals

Material Safety Data Sheet

FKM 90

1. SUBSTANCE /PREPARATION AND COMPANY IDENTIFICATION

Product Name : FKM Compound / V9000AA
MSDS NO. : V0006
Chemical Name : Fluorinated elastomer

2. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical nature (preparation)

Description: Vinylidene fluoride-hexafluoropropene polymer (CAS number:9011-17-0)

Material is not know to contain Toxic Chemicals under Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR part 372.

3. HAZARDS IDENTIFICATION

Potential Health Effects

Skin contact with material may cause skin with discomfort or rash. Significant skin permeation and systemic toxicity after contact appears unlikely. There are no reports of human sensitization.

Inhalation of fumes from burning polymer may cause temporary lung irritation effects with cough, discomfort, difficulty breathing, or shortness of breath. Higher exposures to fumes from burning material may cause pulmonary edema (body fluid in lungs) with cough, wheezing, abnormal lung sounds possibly progressing to severe shortness of breath and bluish discoloration of the skin. Symptom may be delayed. Prompt medical attention is required.

Smokers should avoid contamination of tobacco products with polymer and

should wash their hands before smoking.

Carcinogenicity Information.

None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, OSHA, or ACGIH as a carcinogen.

4. FIRST AID MEASURES

Inhalation:

If exposed to fumes from overheating or combustion, move to fresh air. Consult a physician if symptoms persist.

Skin contact:

Wash with soap and water.

Eye contact:

Flush eyes with plenty of water. Consult a physician if symptoms persist.

Ingestion:

No specific intervention is indicated as compound is not likely to be hazardous by ingestion. Consult a physician if necessary.

5. FIRE FIGHTING MEASURES

Flammable properties

Flash point : >204°C (399°F)

Method : Open cup

Fire and Explosion hazards:

Hazardous gasses/vapors produced in fire are hydrogen fluoride(HF), carbonyl fluoride, carbon monoxide, low molecular weight fluorocarbons.

Extinguishing Media

Water, Foam, Dry Chemical, CO₂

Fire Fighting Instructions

Wear self-contained breathing apparatus. Wear full protective equipment.

Does not burn without an external flame. Protect from hydrogen fluoride fumes which react with water to form hydrofluoric acid. Wear Neoprene gloves when

handling refuse from a fire.

6. ACCIDENTAL RELEASE MEASURES

Safeguards (Personnel)

Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

Spill Clean up: Sweep up to avoid slipping hazard.

7. HANDLING AND STORAGE

Handling: Protect against fire.

Storage: Store in cool and dry place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls

Ventilation: Vapors and fumes liberated from compounds during hot cured processing should be exhausted from work areas to maintain hydrogen fluoride concentration below the PEL.

Personal Protective Equipment

Respirators: When temperature Exceed 200 °C and ventilation is inadequate to maintain concentration below exposure limits, use a positive pressure air supplied respirator. Air purifying respirators may not provide adequate protection.

Protective Clothing: If there is potential contact with hot/ molten material, wear heat resistant clothing and footwear. Do not touch decomposed parts even when cool. Neoprene gloves recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical Data:

Melting Point:	NA
% Volatiles:	NA
Solubility in Water:	Insoluble
Odor:	None
Color:	black
Appearance:	solid
Special Gravity:	1.81 – 1.87

10. STABILITY AND REACTIVITY

Chemical Stability:

Stable at normal temperature and storage condition.

Conditions to avoid:

Temperature above 200 °C

Incompatibility with other materials:

Incompatibility with finely divided metals such as aluminum.

Compounding with metal powders presents an explosion hazard.

Decomposition:

Hazardous decomposition products: Hydrogen fluoride (HF) and perfluoroolefins.

If the finished part is used or tested at temperature above 316°C, the surface of the parts may contain HF or HF condensate, which may cause severe burns, sometimes with symptoms delayed for several hours. Wear neoprene or PVC (if temperature is below melting point of PVC) gloves when handling parts or equipment after exposure to such high temperatures. If condensate is expected, wash equipment and parts well with limewater (calcium hydroxide solution). Discard gloves after handling degraded parts.

11. ECOLOGICAL INFORMATION

Ecotoxicological information

Aquatic toxicity:

No information is available. Toxicity is expected to be low based on insolubility in water.

12. DISPOSAL CONSIDERATIONS

Waste disposal

Preferred options for disposal are (1) recycling, (2) incineration with energy recovery, and (3) landfill. The high fuel value of this product makes option 2 very desirable for material that cannot be recycled, but incinerator must be capable of scrubbing out acidic combustion products. Treatment, storage, transportation, and disposal must be in accordance with applicable federal, state/provincial, and local regulations.

13.TRANSPORTATION INFORMATION

Shipping information

DOT

Proper shipping name: not regulated

Hazard class: not regulated

14.REGULATORY INFORMATION

U.S. Federal Regulations

TSCA inventory Status: In compliance with TSCA Inventory requirements for commercial purposes.

State Regulations (U.S.)

No substances on the state hazardous substances list are used in this compound.

15.OTHER INFORMATION

Additional information

Medical use: Do not use in medical applications involving permanent implantation in human body.

Important Note:

This information is furnished without warranty, expressed or implied, as to accuracy or completeness. This information is obtained from various sources including the manufacturer and other third party sources. The safety data sheet only describes the products in aspect to their safety requirements.

-END OF MSDS-