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MATERIAL SAFETY DATA SHEET

MICRONIZED PTFE

SECTION: 1

COMPOUNDS COVERED BY THIS MSDS

MICRONIZED PTFE

SECTION 2: PRODUCT IDENTIFICATION

Manufacturer's Name: Repra-Lon Texas
Company Phone Number 512-756-2410
Daytime Emergency Phone #: 512-756-2410
(Chemtrec) Emergency Number: 1-800-424-9300
Product Class Polyolefin
Chemical Name: Polytetrafluoroethylene
Synonyms: PTFE

NFPA, NPCA-HMIS RATINGS:

Health 1
Flammability 1
Reactivity 0

SECTION 2 : HAZARD IDENTIFICATION

Heated above 400°C (750°F), can evolve as degradation products.

Material:	CAS #:	% TLV (ACGIH)	PEL (OSHA)
Hydrogen Fluoride	7664-39-3	<1 3PPM, 2.6mg/ m3, ceiling as F	3PPM<8 hrs. TWA as F
Carbonyl Fluoride	353-50-4	1< 2PPM, 5.4mg/ m3, 8hr. TWA STEL 5ppm, 13mg/ m3	None established
Perfluoroisobutylene	382-21-8	<0.01 Ceiling 0.01 PPM, 0.062 mg/ m3	None established

Remarks: Material is not known to contain toxic chemicals under section 313 of title III of the Superfund Amendments and Reauthorization Act of 1986 and CFR part 372.

SECTION 3: HAZARDOUS IDENTIFICATION - POTENTIAL HEALTH AFFECTS

Before using this product, read the Fluoropolymer's Safe Handling Guide published by The Society of the Plastic Industry SPI. This fluoropolymer is not hazardous as shipped. The primary hazard is the inhalation of fumes from overheating or burning of the material which may cause " polymer fume fever ". Inhalation 4 hour LC50< 4,900 mg/ cubic meter in rats. At very high exposure levels, animals were suffocated by accumulated dust in the lungs. Repeated exposure by ingestion caused no adverse affects.

SECTION 3 CONT.

Inhalation of fumes from overheating PTFE may cause "polymer fume fever", a temporary flu-like illness with fever, chills, and sometimes a cough, of approximately 24 hrs. duration. There are some reports in the literature of persistent effects in individuals, especially smokers, who have had repeated episodes of "polymer fume fever". Because of complicating factors, such as mixed exposure and smoking history, these findings are uncertain. Protection against acute exposure should also provide protection against any potential chronic effects. Smokers should avoid contamination of tobacco products, and should wash their hands before smoking. Significant skin permeation after contact appears unlikely. There are no reports of human sensitization. Small amounts of carbonyl fluoride, hydrogen fluoride, and perfluoroisobutylene may also be evolved when PTFE is overheated or burned.

Inhalation of concentrations of HYDROGEN FLUORIDE can initially include symptoms of choking, coughing, and severe eye, nose, and throat irritation. Possibly followed after symptom less period of 1 or 2 days by fever, chills, difficulty in breathing, cyanosis, and pulmonary edema. Acute or chronic overexposure to HF can injure the liver and kidneys. Inhalation, ingestion, skin, or eye contact with CARBONYL FLUORIDE may initially include: skin irritation with discomfort or rash, eye corrosion with corneal or conjunctival ulceration of the upper respiratory passages, or the temporary lung irritation effects with a cough, discomfort, difficulty breathing or shortness of breath. Symptoms may be delayed. PERFLUOROISOBUTYLENE is extremely toxic and inhalation is the most likely route of human exposure. Inhalation exposure may cause severe symptoms of pulmonary edema with wheezing, difficulty in breathing, coughing up sputum, and blush discoloration of the skin. Coughing and chest pain may occur initially. However, severe symptoms of pulmonary edema may be delayed for several hours and then become rapidly worse. Over-exposure may cause death. (Inhalation 2 hrs LC50=1.05 PPM in rats.) Individuals with pre-existing diseases of the lungs may have increased susceptibility to the toxicity of excessive exposures from thermal decomposition products.

CARCINOGENICITY INFORMATION: None of the components in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, OSHA, OR ACGIH as carcinogens.

SECTION 4: PHYSICAL DATA

APPEARANCE:	Flowing Powder	BOILING RANGE:	N/ A
SOLUBLE IN WATER:	Insoluble	ODOR:	None
VAPOR DENSITY vs. AIR:	N/ A	SPECIFIC GRAVITY:	2.19
PEAK MELTING POINT:	325*c (620*F)	COLOR:	White

SECTION 5: FIRE FIGHTING DATA

PTFE is difficult to ignite. The flame goes out when initiating source of removal. It has limited flame spread and low smoke generation. Complies with NFPA definition of "limited combustible" material. High self-ignition & auto-ignition temperature.

EXTINGUISHING MEDIA:	Foam, Water, Carbon Dioxide, and Dry Chemical.
EXPLOSION HAZARDS:	Static electricity may be generated while dumping container.
FIRE FIGHTING PROCEDURES:	Use self-contained breathing apparatus. Wear full protective equipment. Does not burn without an external flame. Protect from hydrogen fluoride fumes that react with water to form hydrofluoric acid. Wear neoprene gloves when handling any refuse from a fire.

SECTION 6: FIRST AID PROCEDURES

PRECAUTION:	Fine powder or dust may cause skin, eye, or respiratory irritation.
EYE CONTACT:	Flush the eyes with tepid water for at least 15 minutes. If irritation persists, consult a physician.

MICRONIZED PTFE**SECTION 6 CONT.****SKIN CONTACT:**

PTFE is not likely to be hazardous by skin contact, but washing thoroughly with soap and water is advisable. Contact from molten material should be treated as a thermal burn. Hot material tends to cling to the flesh, especially after solidifying. Cool as soon as possible with water, and do not attempt to peel the polymer from the skin. Get immediate medical attention.

INHALATION:

PTFE is not likely to be hazardous by inhalation, unless large amounts of dust are inhaled. If exposed to fumes from overheating or combustion, move to fresh air. If breathing is difficult, administer oxygen or artificial respiration. Seek immediate medical attention. See section 8, for special protection.

SECTION 7: STABILITY AND REACTIVITY DATA**CHEMICAL STABILITY:**

Stable at normal temperatures and storage conditions.

DECOMPOSITION:

Heating above 400°C (750°F), may cause evolution of particulate matter, which can cause " polymer fume fever ". Trace amounts of hydrogen fluoride, carbonyl fluoride, and perfluoroisobutylene may be evolved at 360° C (716° F) with larger amounts at higher temperatures.

SECTION 8: SPECIAL PROTECTION INFORMATION**Grounding:**

Recommended when pouring into solvents.

Ventilation:

Use local exhaust to completely remove vapors and fumes liberated during hot processing from the work area.

Protective Gloves:

Recommended.

Respiratory Equipment:

NIOSH/ MSHA approved air purifying respirator with dust / mist cartridge at temperatures less than 400°C (750°F). At higher processing temperatures if ventilation is inadequate to maintain hydrogen fluoride and carbonyl fluoride concentration below exposure limits, use a positive pressure air supplied respirator.

Eye Protection:

Wear safety glasses and coverall chemical splash goggles and face shield when the possibility exists for eye and face contact due to splashing or spraying of molten material. Wearing contact lenses is not recommended.

SECTION 9: SPILL OR LEAK PROCEDURE**Safeguards:**

Review fire-fighting and special protection data. Use appropriate personal protection equipment during clean-up.

Spill Clean-Up:

Sweep up material to avoid slipping hazards. Dispose of accordingly or recover for reuse.

Waste Disposal Methods:

Dispose in accordance with Federal, State, and Local regulations.

SECTION 10: HANDLING AND STORAGE**Handling:**

Fine powder or dust may cause skin, eye, or respiratory irritation. Use with adequate ventilation. Static charges may be generated by the pouring of the powder. Exercise proper grounding when pouring. Avoid contamination of cigarettes or tobacco with dust from this material. Do not use a torch to clean this material from equipment due to the risk of generating decomposition products.

Storage:

Keep container closed to prevent contamination.

MICRONIZED PTFE

SECTION 10 CONT.

Other Precautions: PTFE OSHA PEL (particles not otherwise regulated) , 15 mg/ cubic meter, 8 hr.
TWA, total dust, 5 mg/ cubic meter, 8 hr. TWA, respirable dust.
PTFE ACGIH TLV (particles not otherwise regulated) , 10 mg/ cubic meter, 8 hr.
TWA, total dust, 5 mg/ cubic meter, 8 hr. TWA, respirable dust.

SECTION 11: REGULATORY INFORMATION

TOXIC SUBSTANCES CONTROL ACT (TSCA): In compliance with TSCA inventory requirements for commercial purposes.

California Prop 65: None known.

Substances on New Jersey workplace hazardous substance list present at a concentration of 1% or more (0.1% for substances identified as carcinogens, mutagens, or teratogens): None known.

Shipping Information DOT: Not regulated.

DISCLAIMER:

The information and recommendations contained in this Data Sheet are believed to be accurate and represent the best information currently available to Repronon Texas. No warranty, guarantee, or representation is made by Repronon Texas as to the absolute correctness or sufficiency of the information and recommendations in this Data Sheet. It can be assumed that all possible safety measures are contained in this Data Sheet or that other measures may or may not be required under varying circumstances.

REVISION: B

REVISION DATE: 9/26/07