

MATERIAL SAFETY DATA SHEET

Issue Date: January 3, 2002

Section I - Product Identification

Trade Name: **Release All Safelease 30**
Chemical Name: Aqueous dispersion of tetrafluoroethylene homopolymer and surfactant
Chemical Family: Fluoropolymer dispersion
Synonyms: Mixture

Supplier: Airtech International, Inc.
5700 Skylab Road
Huntington Beach, CA 92647
Telephone: 714-899-8100
Fax: 714-899-8179

Emergency Telephone: 800-424-9300

Emergency Overview: White aqueous dispersion. Surface can be extremely slippery in the case of a spill.

NFPA Ratings (Scale of 0-4): Health = 1 Fire - 0 Reactivity = 0

Section II - Compositional Information

Tetrafluoroethylene Homopolymer

CAS #: 9002-84-0 Approximate Weight (% wt.): <20

Water

CAS #: 7732-18-5 Approximate Weight (% wt.): 60 - 75

Surfactant

CAS #: Proprietary Approximate Weight (% wt.): 1 - 3

Section III - Physical and Chemical Properties

Description: Grayish-white liquid, bland odor
Boiling point: 100°C (212°F) estimate, water
Melting point: 0°C (32°F) estimate, water
Specific gravity: 1.10 (estimate)
Vapor pressure: Not available
Vapor density: Not available
Solubility in water: Dispersion
pH: Greater than 9
Molecular Formula: Mixture
Molecular Weight: Not applicable

Section IV - Fire Fighting Measures

Flash point: Not Flammable

Method used:

Flammable limits in air by volume: Lower: Not Applicable Upper: Not Applicable

Autoignition Temperature: Not Applicable

Extinguishing media: Water (spray or fog), foam, dry chemical or carbon dioxide (CO₂).

Fire Fighting Procedures: Use self-contained breathing apparatus (SCBA) and skin protection for acid gas exposure. Do not enter fire area without proper protection. Fight fire from safe distance. If possible, air monitoring should be performed.

Unusual Fire Hazards: Fluoropolymers will degrade upon prolonged heating or in a fire, liberating carbonyl fluoride and hydrogen fluoride (HF). Decomposition products are toxic if inhaled or they come into contact with moist skin. HF has an ACGIH TLV ceiling limit of 3 ppm (2.6 mg/m³) and an OSHA PEL TWA of 3 ppm. Carbonyl fluoride has an ACGIH TLV TWA and OSHA PEL TWA of 2 ppm (5 mg/m³).

Section V - Potential Health Effects

Effects of Overexposure:

Eye Contact

Eye contact can cause irritation. Prolonged or repeated contact of concentrated product with eyes will cause transient irritation and reddening.

Skin Contact

May cause skin irritation with some individuals.

Inhalation

Inhalation of vapors or mist may cause irritation of the respiratory tract and mucous membranes. Breathing fumes generated during processing of the polymer at temperatures about 315°C (707°F) can cause "polymer fume fever".

Ingestion

Not an expected route. Ingestion may cause gastrointestinal tract irritation, nausea, vomiting, diarrhea and mucosal irritation.

First Aid Measures:

IN CASE OF EYE CONTACT: Flush eyes for 15 minutes with copious amounts of water, retracting eyelids often. Seek medical attention.

IN CASE OF SKIN CONTACT: Wash skin thoroughly with mild soap and water. Flush with lukewarm water for 15 minutes. If irritation persists, consult a physician.

IN CASE OF INHALATION: If symptoms of irritation or discomfort are experienced, or victim is overcome by exposure, remove affected person to fresh air. Give oxygen or artificial respiration as needed.

IN CASE OF INGESTION: If conscious, drink three to four 8 ounce glasses of water or milk. Call a physician. If unconscious, immediately take affected person to hospital. Do not give anything by mouth to an unconscious person.

Section VI - Stability and Reactivity

Stability: Stable

Reactivity: Not reactive

Conditions to Avoid: Heat, sparks, flames, and other ignition sources.

Incompatibility (Materials to Avoid): Alkali metals and halogenated compounds.

Hazardous Decomposition or Byproducts: Thermal decomposition of the polymer (at temperatures above 350°C (662°F) will generate hydrogen fluoride (HF), which is corrosive, causing burns on contact with skin and other tissue. Burning may produce carbon monoxide, carbon dioxide, ammonia and other toxic fumes.

Section VII - Accidental Release Measures

Steps to be taken in case material is released or spilled:

In case of a release or spill, absorb material onto vermiculite or similar inert absorbent. Place spilled material into a covered container for disposal. Dispose of according to applicable local, state and federal regulations. Extinguish all ignition sources and evacuate the area. Exercise caution - spill area may be extremely slippery. Only personnel equipped with eye protection should be allowed in the area.

Waste Disposal Method:

Material, as supplied, is not a hazardous waste according to RCRA. Landfill according to current federal, state and local regulations, or incinerate in a high-temperature incinerator designed to burn fluorine-containing materials. Processing, use or contamination may make this information inaccurate or incomplete.

Section VIII - Exposure Controls/Personal Protection

ACGIH Threshold Limit Value (8 hr. time weighted average): None established

OSHA Permissible Exposure Limit Value (8 hr. time weighted average): None established

Engineering Controls:

Ventilation Requirements: Local Exhaust: Vent vapors from melt processing away from operating personnel. Local exhaust ventilation at a rate of 50 feet per minute.

Personal Protective Equipment:

Respiratory Protection: No occupational exposure standards have been developed for this material. In situations where exposure to vapors or mists is likely, NIOSH/MSHA approved respirators are recommended. Respirator use limitations made by NIOSH/MSHA or the manufacturer must be observed. Respiratory protection programs must be in accordance with 29 CFR 1910.134.

Eye Protection: Eye/Face Protection: ANSI Z.28 approved safety glasses with side shields or equivalent. Safety goggles where there is a potential for splashing or contact with liquid material.

Skin Protection: Rubber or latex gloves where there is a potential for splashing or contact with liquid material.

Section IX - Special Precautions

Precautions To Be Taken In Handling And Storing

Wash hands after use and before handling food or applying cosmetics. Do not use tobacco products in the immediate area. Keep containers closed. Keep away from heat, sparks and flames. Do not store near combustible materials. Do not freeze.

Section X - Toxicological Information

No toxicology data is available for this material. However, similar materials have not exhibited acute toxicological effects.

Polymer pyrolysis product (at 625°C/1157°F)
Rat 5 minute LC50: 2700 mg/m³
Rat 30 minute LC50: 3500 mg/m³

Breathing fumes generated during processing of the polymeric substance at temperatures ranging from 315° to 375°C (599° to 707°F) can cause an influenza-like disorder called "polymer fume fever". Symptoms include chills, headache, nausea, breathing discomfort, weakness, cough, sore throat, and tightness in the chest. The symptoms generally disappear within 24 to 48 hours. The specific chemicals in the fume which cause polymer fume fever are not known. A common cause of polymer fume fever is smoking tobacco contaminated with minute amounts of PTFE. In one experiment, volunteers developed a fever after smoking a single cigarette contaminated with less the 1 mg of polytetrafluoroethylene (PTFE). Above 400°C, the quantity of fumes and their toxicity increase. Hydrogen fluoride and other toxic fluorinated compounds are produced. Serious lung damage (inflammation of the lungs) may occur in severe cases, but recovery is normally complete. No fatalities from inhalation of PTFE fumes have been reported; no cases of polymer fume fever from overheating of finished PTFE products have been reported.

Section XI - Ecotoxicological Information

No ecotoxicological information is available for this material.

Section XII - Transportation Information

Shipping Class: Not regulated by DOT

DO NOT FREEZE

Section XIII - Regulatory Information

All components of this product are listed on the Toxic Substance Control Act (TSCA) Section 8 (b)

Chemical Inventory and the Canadian Environmental Protection Act (CEPA) provisional domestic substances list (DSL).

This product is not a "hazardous substance" as defined by OSHA Hazard Communication Standard (29 CFR 1910.1200).

This product is not a "controlled product" as defined by the Canadian Workplace Hazardous Materials Information System (WHMIS).

SARA 313 Toxic Chemicals: Components not listed.

SARA 311/312: Acute: No
 Chronic: No
 Fire: No
 Reactivity: No
 Sudden Release of Pressure: No

SARA 302 Extremely Hazardous Substances: Components not listed

Polytetrafluoroethylene is listed on the Pennsylvania Hazardous Substance List.

User's Responsibility

This bulletin cannot cover all possible situations which the user may experience during processing. Each aspect of your operation should be examined to determine if, or where, additional precautions may be necessary. All health and safety information contained in this bulletin should be provided to your employees or customers. It is your responsibility to use this information to develop appropriate work practice guidelines and employee instructional programs for your operation.

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