



MATERIAL SAFETY DATA SHEET

Polytetrafluoroethylene Solid Powder Lubricant KT series

Section 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name: Polytetrafluoroethylene Solid Powder Lubricant KT series
Product Number: KT-40H, KT-60, KT-300M, KT-300H, KT-400M, KT-400H, KT-600M
Product Use: Lubricant.
Manufacturer: Kitamura Limited
1-242, Shiratsuchi, Haruki, Togo-cho, Aichi-gun, Aichi Pref.
470-0162, Japan
Phone Number: +81-52-803-5151
Emergency Phone: CALSAK CORPORATION (Distributor)
+1-310-719-9500 (8AM - 5PM)
Date of Preparation: June 7, 2011

Section 2: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

CAUTION

MAY CAUSE EYE IRRITATION.

Potential Health Effects: See Section 11 for more information.

Likely Routes of Exposure: Skin contact, eye contact, inhalation, and ingestion.

Eye: May cause eye irritation.

Skin: May cause skin irritation.

Ingestion: May be harmful if swallowed. May cause stomach distress, nausea or vomiting.

Inhalation: May cause respiratory tract irritation.

Chronic Effects: Prolonged or repeated contact may dry skin and cause irritation.

Signs and Symptoms: Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva. Symptoms may include redness, edema, drying, defatting and cracking of the skin.

Medical Conditions Aggravated By Exposure: Asthma. Allergies.

Target Organs: Skin, eyes, gastrointestinal tract, respiratory system.

Potential Environmental Effects: May cause long-term adverse effects in the aquatic environment. See Section 12 for more information.

Section 3: COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient	UN Number	H / F / R / Special*	CAS #	Wt. %
Polytetrafluoroethylene	Not available.	Not available.	9002-84-0	100

* Per NOM-018-STPS-2000

Section 4: FIRST AID MEASURES

Eye Contact: In case of contact, immediately flush eyes with plenty of water. If easy to do, remove contact lenses, if worn.

Skin Contact: In case of contact, immediately flush skin with plenty of water. Call a physician if irritation develops and persists.



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Inhalation: Remove person to fresh air. If symptoms persist, obtain medical attention.

Ingestion: If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.

General Advice: In case of accident or if you feel unwell, seek medical advice immediately (show the label or MSDS where possible).

Note to Physicians: Symptoms may not appear immediately.

Section 5: FIRE FIGHTING MEASURES

Flammability: Not flammable by WHMIS/OSHA criteria.

Means of Extinguishing:

Suitable Extinguishing Media: Powder, water spray, foam, carbon dioxide.

Unsuitable Extinguishing Media: Not available.

Products of Combustion: May include, and are not limited to: oxides of carbon. Highly toxic fumes may be emitted in combustion. (Hydrogen fluoride (HF), Carbonyl fluoride, Low molecular weight Fluorocarbons).

Explosion Data:

Sensitivity to Mechanical Impact: Not available.

Sensitivity to Static Discharge: Not available.

Protection of Firefighters: Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA). Wear neoprene gloves during cleaning up work after a fire.

Section 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions: Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel.

Environmental Precautions: This material is a water pollutant. Keep out of drains, sewers, ditches, and waterways. Minimize use of water to prevent environmental contamination.

Methods for Containment: Contain and/or absorb spill with inert material (e.g. sand, vermiculite), then place in a suitable container. Do not flush to sewer or allow to enter waterways. Use appropriate Personal Protective Equipment (PPE).

Methods for Clean-Up: Vacuum or sweep material and place in a disposal container. Spills of this material are a slipping hazard. Recommend to use mechanical handling equipment.

Other Information: Not available.

Section 7: HANDLING AND STORAGE

Handling:

Avoid contact with skin and eyes. Do not swallow. Do not breathe dust. Handle and open container with care. When using do not eat or drink. Wash hands before eating, drinking, or smoking. All heated processing equipment must be vented to atmosphere outside the building, because decomposition starts at temperatures above about 250°C (482°F).

Storage:

Keep out of the reach of children. Keep container in a well-ventilated place. Keep container dry.



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Section 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

Ingredient	Exposure Limits	
	OSHA-PEL	ACGIH-TLV
Polytetrafluoroethylene	Not available.	Not available.

Engineering Controls: Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, etc.) below recommended exposure limits.

Personal Protective Equipment:

Eye/Face Protection: Wear eye/face protection.

Hand Protection: Wear suitable gloves.

Skin and Body Protection: Wear rubber or polyethylene gloves.

Respiratory Protection: Dust mask to avoid irritation in dusty situations.

General Hygiene Considerations: Handle according to established industrial hygiene and safety practices. Avoid contamination of smoking materials with polymer dust.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Powder.
Color:	White.
Odour:	No odor.
Odour Threshold:	Not available.
Physical State:	Solid.
pH:	Not available.
Viscosity:	Not available.
Freezing Point:	Not available.
Boiling Point:	Not available.
Flash Point:	Not applicable.
Evaporation Rate:	Not available.
Lower Flammability Limit:	Not available.
Upper Flammability Limit:	Not available.
Vapor Pressure:	Not available.
Vapor Density:	Not available.
Specific Gravity:	Not available.
Solubility in Water:	Insoluble.
Coefficient of Water/Oil Distribution:	Not available.
Auto-ignition Temperature:	~ 575 °C (~ 1067 °F)
Percent Volatile, wt. %:	Not available.
VOC content, wt. %:	Not available.



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Section 10: STABILITY AND REACTIVITY

Stability: Stable under normal storage conditions.

Conditions of Reactivity: Heat. Incompatible materials.

Incompatible Materials: Strong oxidizers. Powdered Metals. Molten alkali metals.

Hazardous Decomposition Products: May include, and are not limited to: oxides of carbon. Hydrogen fluoride (HF), Carbonyl fluoride, Low molecular weight Fluorocarbons. The thermal decomposition gas of P.T.F.E. may cause polymer fume fever with flu-like symptoms, when thermally decomposed or smoking contaminated tobacco.

Possibility of Hazardous Reactions: No dangerous reaction known under conditions of normal use.

Section 11: TOXICOLOGY INFORMATION

EFFECTS OF ACUTE EXPOSURE

Component Analysis

Ingredient	IDLH	LD ₅₀ (oral)	LC ₅₀
Polytetrafluoroethylene	Not available.	Not available.	45 mg/m ³ , 30min rat

Eye: May cause eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.

Skin: May cause skin irritation. Symptoms may include redness, edema, drying, defatting and cracking of the skin.

Ingestion: May be harmful if swallowed. May cause stomach distress, nausea or vomiting.

Inhalation: May cause respiratory tract irritation.

EFFECTS OF CHRONIC EXPOSURE

Target Organs: Not available.

Chronic Effects: Not hazardous by WHMIS/OSHA criteria.

Carcinogenicity: Not hazardous by WHMIS/OSHA criteria.

Ingredient	Chemical Listed as Carcinogen or Potential Carcinogen *
Polytetrafluoroethylene	I-3

* See Section 15 for more information.

Mutagenicity: Not hazardous by WHMIS/OSHA criteria.

Reproductive Effects: Not hazardous by WHMIS/OSHA criteria.

Developmental Effects:

Teratogenicity: Not hazardous by WHMIS/OSHA criteria.

Embryotoxicity: Not hazardous by WHMIS/OSHA criteria.

Respiratory Sensitization: Not hazardous by WHMIS/OSHA criteria.

Skin Sensitization: Not hazardous by WHMIS/OSHA criteria.

Toxicologically Synergistic Materials: Not available.



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Section 12: ECOLOGICAL INFORMATION

Ecotoxicity: May cause long-term adverse effects in the aquatic environment.

Persistence / Degradability: Not available.

Bioaccumulation / Accumulation: Not available.

Mobility in Environment: Not available.

Section 13: DISPOSAL CONSIDERATIONS

Disposal Instructions:

This material must be disposed of in accordance with all local, state, provincial, and federal regulations.

Section 14: TRANSPORTATION INFORMATION

DOT Classification

Not regulated

TDG Classification

Not regulated

NOM-004-SCT2-1994 Classification

Not regulated

Section 15: REGULATORY INFORMATION

Federal Regulations

Canadian: This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

US: MSDS prepared pursuant to the Hazard Communication Standard (CFR29 1910.1200).

Mexico: MSDS prepared pursuant to NOM-018-STPS-2000.

SARA Title III

Ingredient	Section 302 (EHS) TPQ (lbs.)	Section 304 EHS RQ (lbs.)	CERCLA RQ (lbs.)	Section 313
Polytetrafluoroethylene	Not listed.	Not listed.	Not listed.	Not listed.

State Regulations

California Proposition 65:

This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

Global Inventories

Ingredient	Canada DSL/NDSL	USA TSCA
Polytetrafluoroethylene	DSL	Yes.

HMIS - Hazardous Materials Identification System

Health - 0 Flammability - 0 Physical Hazard - 0

NFPA - National Fire Protection Association:

Health - 0 Fire - 0 Reactivity - 0

Hazard Rating: 0 = minimal, 1 = slight, 2 = moderate, 3 = severe, 4 = extreme

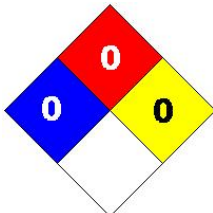


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WHMIS Classification(s):
Not controlled.

Mexico Classification:



Blue = Health Red = Flammability Yellow = Reactivity White = Special

Hazard Rating: 0 = minimal, 1 = slight, 2 = moderate, 3 = severe, 4 = extreme

SOURCE AGENCY CARCINOGEN CLASSIFICATIONS:

OSHA (O) Occupational Safety and Health Administration.

ACGIH (G) American Conference of Governmental Industrial Hygienists.

- A1 - Confirmed human carcinogen.
- A2 - Suspected human carcinogen.
- A3 - Animal carcinogen.
- A4 - Not classifiable as a human carcinogen.
- A5 - Not suspected as a human carcinogen.

IARC (I) International Agency for Research on Cancer.

- 1 - The agent (mixture) is carcinogenic to humans.
- 2A - The agent (mixture) is probably carcinogenic to humans; there is limited evidence of carcinogenicity in humans and sufficient evidence of carcinogenicity in experimental animals.
- 2B - The agent (mixture) is possibly carcinogenic to humans; there is limited evidence of carcinogenicity in humans in the absence of sufficient evidence of carcinogenicity in experimental animals.
- 3 - The agent (mixture, exposure circumstance) is not classifiable as to its carcinogenicity to humans.
- 4 - The agent (mixture, exposure circumstance) is probably not carcinogenic to humans.

NTP (N) National Toxicology Program.

- 1 - Known to be carcinogens.
- 2 - Reasonably anticipated to be carcinogens.

Section 16: OTHER INFORMATION

Disclaimer:

The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. It is the user's responsibility to satisfy oneself as to the suitability and completeness of this information for the user's own particular use.

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