MATERIAL SAFETY DATA SHEET

UNIDYNE TG-8151

SECTION 1: CHEMICAL PRODUCT & COMPANY IDENTIFICATION

MSDS-UNIDYNE Revised 9/17/2010

DAIKIN TRADE NAME: UNIDYNE TG-8151

CHEMICAL FAMILY: Fluoroalkyl acrylate copolymer solution

DAIKIN AMERICA, INC: 20 OLYMPIC DRIVE, ORANGEBURG, NEW YORK 10962

EMERGENCY PHONE: 1-256-306-5000

PRODUCT INFORMATION: 1-800-365-9570 9 am to 5 pm Eastern Standard Time

SECTION 2: HAZARDS IDENTIFICATION

PHYSICAL DESCRIPTION: Pink tinted liquid

POTENTIAL HEALTH EFFECTS: May cause skin, eye, and respiratory irritation. It may also be harmful if inhaled. Above 200 °C, hydrogen fluoride and other toxic fluorinated compounds may be produced; inhalation of these compounds under these conditions may result in serious lung irritation.

HMIS Ratings		
	Health:	1
	Flammability:	1
	Reactivity:	0

SECTION 3: INFORMATION ON INGREDIENTS

COMPONENT	CAS. NO.	Wt%	OSHA (PEL)	ACGIH (TLV)
NON-HAZARDOUS INGREDIENTS				
Fluoroalkyl acrylate copolymer	Trade Secret	19.0 - 21.0	None	None
Water	7732-18-5	79.0 - 81.0	None	None

SECTION 4. FIRST AID PROCEDURES

INGESTION: Consult a physician immediately.

EYE CONTACT: Flush with large amounts of water for 10-15 minutes. Consult a physician if needed.

SKIN CONTACT: Wash affected area with soap and water. Remove contaminated clothing.

INHALATION: Leave the contaminated area and seek fresh air. If breathing is difficult, contact a physician.

SECTION 5. FIRE FIGHTING MEASURES

FLASH POINT (METHOD USED):	**>200 °F (Closed Cup), >203 °F (Open Cup)**
FLAMMABLE LIMITS:	**LEL: Not tested UEL: Not tested**
HAZARDOUS COMBUSTION PRODUCTS:	**Toxic by-products including hydrofluoric acid, perfluoroisobutylene, and carbonyl fluoride may be formed at very high temperatures.**
EXTINGUISHING MEDIA:	**Alcohol foam, CO_2, dry chemical or water spray**
PROTECTIVE EQUIPMENT:	**Use NIOSH/MSHA approved SCBA and bunker gear. Evolution of acidic gases may require complete wash down of protective clothing prior to removal.**

SECTION 6. ACCIDENTAL RELEASE MEASURES

Ensure cleanup is done only by trained personnel wearing appropriate personal protective equipment.

Ventilate area and cover with absorbent material.

Collect spilled material in a container and seal.

Spilled material is a slipping hazard.

This product contains Methyl ethyl ketone (MEK) at less than 0.5%. Wastes containing MEK at 200 ppm or greater are RCRA Hazardous.

SECTION 7. HANDLING & STORAGE

HANDLING

Follow safe industrial hygiene practices and wear proper protective equipment.
Use only in well ventilated areas.
Safety showers & eyewashes should be available in the work area.
Wash hands thoroughly after handling. Wash clothing after use.
Avoid contact with the skin or eyes.
Do not breathe vapor or spray.
Do not store or consume food, drink or tobacco in areas where they may become contaminated with this material.

STORAGE

Store material at –5 °C (23 °F) to 40 °C (104°F).

Keep away from heat, steam, and sunlight.

Keep containers tightly closed when not in use.

SECTION 8. EXPOSURE CONTROLS & PERSONAL PROTECTIVE EQUIPMENT

RESPIRATORY PROTECTION:	**Use respirator suitable for protection when spraying this material. If material is heated above 200 °C, use a positive pressure air supplied respirator or SCBA.**
EYE PROTECTION:	**Safety glasses with sideshields or goggles**
PROTECTIVE CLOTHING:	**Chemical resistant gloves**
VENTILATION:	**If material is heated above 200 °C, use local exhaust ventilation.**
OTHER PROTECTIVE EQUIPMENT:	**Eyewash station and safety shower.**

SECTION 9. PHYSICAL & CHEMICAL PARAMETERS

BOILING POINT (°C):	**Approx. 100 °C (Water)**
FREEZING POINT (°C):	**Approx. 0 °C**
SPECIFIC GRAVITY (H_2O=1):	**Approx. 1.06 at 25 °C**
VAPOR PRESSURE:	**No Data**
VAPOR DENSITY:	**No Data**
EVAPORATION RATE (Butyl acetate=1):	**No Data**
pH:	**5.0 ~ 8.0**
SOLUBILITY IN WATER:	**Miscible**

SECTION 10. STABILITY & REACTIVITY

STABILITY: Stable

CONDITIONS TO AVOID: Excessive heat, sparks, open flame

HAZARDOUS POLYMERIZATION: Should not occur

INCOMPATIBILITIES: May react with metals, such as sodium, magnesium, aluminum at elevated temperatures (above 425 °C); may react upon prolonged exposure to fluorine or in oxygen-fluorine mixtures at high temperatures and pressures. Contact with incompatible materials may result in fire or explosion.

Hazardous decomposition or by-products and toxic by-products including hydrofluoric acid, perfluoroisobutylene, and carbonyl fluoride may be formed at very high temperatures.

SECTION 11. TOXICOLOGICAL INFORMATION

ACUTE EFFECTS OF EXPOSURE

Ingestion: May be harmful if swallowed

Eye Contact: May cause mild irritation

Skin Contact: May cause skin irritation and sensitization

Inhalation: May cause respiratory irritation

CHRONIC EFFECTS OF EXPOSURE: No data available

CARCINOGENICITY: None of the components in this material is listed by NTP, OSHA or IARC.

TOXICOLOGICAL TEST: No data available

OTHER POTENTIAL HAZARDS (OF THE PURE MATERIALS): No data available

Excessive exposure to thermal degradation products could result in delayed pulmonary edema in some cases, and on very high exposure, damage to the liver and kidneys. These substances may include: perfluoroisobutylene (TLV = 10 ppb), carbonyl fluoride (TLV = 2 ppm TWA, 5 ppm STEL), hydrogen fluoride (TLV = 2 ppm Ceiling, 0.5 ppm TWA).

SECTION 12. ECOLOGICAL INFORMATION

BIODEGRADABILITY: No data

BIOACCUMULATION: No data

SECTION 13. DISPOSAL CONSIDERATIONS

Comply with Federal, State and Local regulations concerning health and environment when disposing of materials. Regulations may also apply to empty containers, liners, or rinsate. DO NOT INCINERATE unless incinerator is capable of scrubbing hydrogen fluoride and other acidic combustion products. This product contains Methyl ethyl ketone (MEK) at less than 0.5%. Wastes containing MEK at 200 ppm or greater are RCRA Hazardous.

SECTION 14. TRANSPORT INFORMATION

UN CLASSIFICATION: Not applicable

DOT HAZARD DESCRIPTION: Not applicable

CANADIAN TRANSPORTATION OF DANGEROUS GOODS (TDG): Not applicable

SECTION 15. REGULATORY INFORMATION

TSCA: **All components of this product are in compliance with the inventory listing requirements of the U.S. Toxic Control Substance Act (TSCA) Chemical Substance Inventory.**

The base polymer is subject to a consent order regarding a premanufacturing notice under Section 5(e) of TSCA. In addition, the base polymer is subject to export notification under Section 12b of TSCA.

FDA: **Food and Drug Administration (FDA) Federal Food, Drug, and Cosmetic Act: When use situations necessitate compliance with FDA regulations, this product is compliant based on an advisory opinion letter (AOL) under: 21 CFR 176.170 and 176.180.**

SECTION 16. OTHER INFORMATION

For additional information, refer to the American Conference of Governmental Industrial Hygienists (ACGIH) documentation of TLV's (Threshold Limit Values) for individual components, Fluoropolymers Safe Handling Guide published by The Society of the Plastics Industry, and the DOT Emergency Response Guidebook.

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