

Gujarat Fluorochemicals Ltd.

Version No: 2.3

Safety Data Sheet (Conforms to Regulation (EU) No 2015/830)

Chemwatch Hazard Alert Code: 0

Issue Date: 02/06/2018 Print Date: 02/06/2018 S.REACH.GBR.EN

SECTION 1 IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

1.1. Product Identifier

Product name	Fluonox Peroxide curable raw gum
Chemical Name	vinylidene fluoride/ hexafluoropropene/ tetrafluoroethene
Synonyms	KR320P, KR340P, KR520P, KR545P, KR565P
Other means of identification	Not Available
	,

1.2. Relevant identified uses of the substance or mixture and uses advised against

Relevant id	dentified uses	Use according to manufacturer's directions.
Uses ad	lvised against	Not Applicable

1.3. Details of the supplier of the safety data sheet

Registered company name	Gujarat Fluorochemicals Ltd.
Address	12/ A GIDC Dahej Industrial Estate India
Telephone	+91-2641-618333
Fax	+91-2641-618012
Website	www.gfl.co.in; www.fluonox.co.in
Email	contact@gfl.co.in

1.4. Emergency telephone number

Association / Organisation	Gujarat Fluorochemicals Itd
Emergency telephone numbers	+91-2641-618080-81
Other emergency telephone numbers	Not Available

SECTION 2 HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Not considered a hazardous mixture according to Reg. (EC) No 1272/2008 and their amendments. Not classified as Dangerous Goods for transport purposes.

CHEMWATCH HAZARD RATINGS

	Min	Max	
Flammability	0		
Toxicity	0		0 = Minimum
Body Contact	0		1 = Low 2 = Moderate
Reactivity	0		3 = High
Chronic	0		4 = Extreme

Classification according to	
regulation (EC) No 1272/2008	Not Applicable
regulation (EC) No 1272/2008 [CLP] ^[1]	
2.2. Label elements	
Hazard pictogram(s)	Not Applicable

Tiazaru pictogram(s)	Not Applicable
SIGNAL WORD	NOT APPLICABLE
Hazard statement(s)	

Not Applicable

Not Applicable

Precautionary statement(s) Prevention

Not Applicable

Precautionary statement(s) Response

Not Applicable

Precautionary statement(s) Storage

Not Applicable

Precautionary statement(s) Disposal Not Applicable

2.3. Other hazards

May produce discomfort of the respiratory system*.

REACH - Art.57-59: The mixture does not contain Substances of Very High Concern (SVHC) at the SDS print date.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

3.1.Substances

See 'Composition on ingredients' in Section 3.2

3.2.Mixtures

1.CAS No 2.EC No 3.Index No 4.REACH No		%[weight]	Name	Classification according to regulation (EC) No 1272/2008 [CLP]
1.25190-89-0 2.Not Available 3.Not Available 4.Not Available		>99	vinylidene fluoride/ hexafluoropropene/ tetrafluoroethene	Not Applicable
	Legend:	1. Classified I	by Chemwatch; 2. Classification drawn from EC Directive 12	272/2008 - Annex VI; 3. Classification drawn from C&L

SECTION 4 FIRST AID MEASURES

4.1. Description of first aid measures

Eye Contact	If this product comes in contact with eyes: • Wash out immediately with water. • If irritation continues, seek medical attention. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel. For THERMAL burns: • Do Not remove contact lens • Lay victim down, on stretcher if available and pad both eyes, make sure dressing does not press on the injured eye by placing thick pads under dressing, above and below the eye. • Seek urgent medical assistance, or transport to hospital.
Skin Contact	 If skin or hair contact occurs: Flush skin and hair with running water (and scap if available). Seek medical attention in event of irritation. In case of burns: Immediately apply cold water to burn either by immersion or wrapping with saturated clean cloth. Do NOT tenove or cut way clothing over burnt areas. DO NOT pull away clothing which has adhered to the skin as this can cause further injury. DO NOT tenove or cut away clothing over burnt areas. Quickly cover wound with dressing or clean cloth to help prevent infection and to ease pain. For large burns, sheets, towels or pillow slips are ideal; leave holes for eyes, nose and mouth. DO NOT apply ointments, oils, butter, etc. to a burn under any circumstances. Water may be given in small quantities if the person is conscious. Alcohol is not to be given under any circumstances. Reassure. Treat for shock by keeping the person warm and in a lying position. Seek medical aid and advise medical personnel in advance of the cause and extent of the injury and the estimated time of arrival of the patient. For thermal burns: De contaminate area around burn. Consider the use of cold packs and topical antibiotics. For first-degree burns (affecting top layer of skin) Hold burned skin under cool (not cold) running water or immerse in cool water until pain subsides. Use compresses if running water is not available. Cover with sterile non-adhesive bandage or clean cloth. Do NOT apply butter or intments; this may cause infection. Give over-the counter pain relievers if pain increases or swelling, redness, fever occur. For second-degree burns (affecting top two layers of skin) Cool the burn by immerse in cold running water for 10-15 minutes. Use compresses if running water is not available. Do NOT apply butter or ointments; this may cause infection. Protect burn by c

	 Cover the person with coat or blanket. Seek medical assistance. For third-degree burns Seek immediate medical or emergency assistance. In the mean time: Protect burn area cover loosely with sterile, nonstick bandage or, for large areas, a sheet or other material that will not leave lint in wound. Separate burned toes and fingers with dry, sterile dressings. Do not soak burn in water or apply ointments or butter; this may cause infection. To prevent shock see above. For an airway burn, do not place pillow under the person's head when the person is lying down. This can close the airway. Have a person with a facial burn sit up. Check pulse and breathing to monitor for shock until emergency help arrives.
Inhalation	 If fumes, aerosols or combustion products are inhaled remove from contaminated area. Other measures are usually unnecessary.
Ingestion	 Immediately give a glass of water. First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

4.2 Most important symptoms and effects, both acute and delayed

See Section 11

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

For other related polyfluorinated polymers:

Pyrolysis products of this material have been known to produce an influenza-like syndrome in man, lasting 24-48 hours. (ILO)

SECTION 5 FIREFIGHTING MEASURES

5.1. Extinguishing media

+ Do NOT direct a solid stream of water or foam into burning molten material; this may cause spattering and spread the fire.

- Foam.
- Dry chemical powder.
- BCF (where regulations permit).
- Carbon dioxide.

5.2. Special hazards arising from the substrate or mixture

Fire Incompatibility	Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result
5.3. Advice for firefighters	
Fire Fighting	 Alert Fire Brigade and tell them location and nature of hazard. Wear breathing apparatus plus protective gloves. Prevent, by any means available, spillage from entering drains or water courses. Use water delivered as a fine spray to control fire and cool adjacent area.
Fire/Explosion Hazard	 Combustible solid which burns but propagates flame with difficulty; it is estimated that most organic dusts are combustible (circa 70%) - according to the circumstances under which the combustion process occurs, such materials may cause fires and / or dust explosions. Organic powders when finely divided over a range of concentrations regardless of particulate size or shape and suspended in air or some other oxidizing medium may form explosive dust-air mixtures and result in a fire or dust explosion (including secondary explosions). Avoid generating dust, particularly clouds of dust in a confined or unventilated space as dusts may form an explosive mixture with air, and any source of ignition, i.e. flame or spark, will cause fire or explosion. Dust clouds generated by the fine grinding of the solid are a particular hazard; accumulations of fine dust (420 micron or less) may burn rapidly and fiercely if ignited - particles exceeding this limit will generally not form flammable dust clouds; once initiated, however, larger particles up to 1400 microns diameter will contribute to the propagation of an explosion. Combustion products include: carbon monoxide (CO) carbon dioxide (CO2) hydrogen fluoride (HF) other pyrolysis products typical of burning organic material. CARE: Contamination of heated / molten liquid with water may cause violent steam explosion, with scattering of hot contents. For other related polyfluorinated polymers does not burn without an external flame. WARNING: Wear neoprene gloves when handling refuse from fire where other fluorinated polymers was present.

SECTION 6 ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

See section 8

6.2. Environmental precautions

See section 12

6.3. Methods and material for containment and cleaning up

Minor Spills	 Clean up all spills immediately. Avoid contact with skin and eyes.
	 Wear impervious gloves and safety glasses. Use dry clean up procedures and avoid generating dust.

Major Spills Clear area of personnel and move upwind. Alert Fire Brigade and tell them location and nature of hazard. Control personal contact with the substance, by using protective equipment and dust respirator. Prevent spillage from entering drains, sewers or water courses. Major Spills
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6.4. Reference to other sections

Personal Protective Equipment advice is contained in Section 8 of the SDS.

SECTION 7 HANDLING AND STORAGE

Safe handling	 The greatest potential for injury caused by molten materials occurs during purging of machinery (moulders, extruders etc.) It is essential that workers in the immediate area of the machinery wear eye and skin protection (such as full face, safety glasses, heat resistant gloves overalls and safety boots) as protection from thermal burns. Fumes or vapours emitted from hot melted materials, during converting operations, may condense on overhead metal surfaces or exhaust ducts. The condensate may contain substances which are irritating or toxic. Avoid contact of that material with the skin. Limit all unnecessary personal contact. Wear protective clothing when risk of exposure occurs. Use in a well-ventilated area. Avoid contact with incompatible materials. Organic powders when finely divided over a range of concentrations regardless of particulate size or shape and suspended in air or some other oxidizing medium may form explosive dust-air mixtures and result in a fire or dust explosion (including secondary explosions) Minimise airborne dust and eliminate all ignition sources. Keep away from heat, hot surfaces, sparks, and flame. Establish good housekeeping practices. Remove dust accumulations on a regular basis by vacuuming or gentle sweeping to avoid creating dust clouds.
Fire and explosion protection	See section 5
Other information	 Store in original containers. Keep containers securely sealed. Store in a cool, dry area protected from environmental extremes. Store away from incompatible materials and foodstuff containers.

7.2. Conditions for safe storage, including any incompatibilities

Suitable container	 Lined metal can, lined metal pail/ can. Plastic pail. Polyliner drum. Packing as recommended by manufacturer.
Storage incompatibility	Avoid contamination of water, foodstuffs, feed or seed. For other related polyfluorinated polymers: Avoid storage with strong oxidising agents, tetrafluoroethylene, hexafluoroethylene, perfluoroisobutylene, carbonyl fluoride and hydrogen fluoride.

7.3. Specific end use(s)

See section 1.2

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Control parameters

DERIVED NO EFFECT LEVEL (DNEL)

Not Available

PREDICTED NO EFFECT LEVEL (PNEC)

Not Available

OCCUPATIONAL EXPOSURE LIMITS (OEL)

INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
Not Available						

EMERGENCY LIMITS

Ingredient	Material name	TEEL-1	TEEL-2	TEEL-3	
Fluonox Peroxide curable raw gum	Not Available	Not Available	Not Available	Not Available	
Ingredient	Original IDLH		Revised IDLH		
vinylidene fluoride/ hexafluoropropene/ tetrafluoroethene	Not Available		Not Available		

8.2. Exposure controls

8.2.1. Appropriate engineering controls	Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection. The basic types of engineering controls are: Process controls which involve changing the way a job activity or process is done to reduce the risk. Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment. For molten materials: Provide mechanical ventilation; in general such ventilation should be provided at compounding/ converting areas and at fabricating/ filling work stations where the material is heated. Local exhaust ventilation should be used over and in the vicinity of machinery involved in handling the molten material.

	Keep dry!! Processing temperatures may be well above boiling point of water, so wet or damp material may cause a serious steam explosion if used in unvented equipment. For other related polyfluorinated polymers: In processes such as extrusion moulding, engineering controls should be designed to draw thermal degeneration products from the workers breathing zone. NOTE: When hydrogen fluoride is first detected continue to run equipment with the heat source to the polymer turned off. Ventilate the area and remove non-essential personnel from the area. In case of a major decomposition event evacuate all personnel immediately
8.2.2. Personal protection	
Eye and face protection	 Safety glasses with side shields Chemical goggles. Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience.
Skin protection	See Hand protection below
Hands/feet protection	 Personal hygiene is a key element of effective hand care. When handling hot materials wear heat resistant, elbow length gloves. Rubber gloves are not recommended when handling hot objects, materials Protective gloves eg. Leather gloves or gloves with Leather facing Neoprene rubber gloves Experience indicates that the following polymers are suitable as glove materials for protection against undissolved, dry solids, where abrasive particles are not present. polychloroprene. initial rubber. butyl rubber.
Body protection	See Other protection below
Other protection	 When handling hot or molten liquids, wear trousers or overalls outside of boots, to avoid spills entering boots. Usually handled as molten liquid which requires worker thermal protection and increases hazard of vapour exposure. CAUTION: Vapours may be irritating. No special equipment needed when handling small quantities. OTHERWISE: Overalls. Barrier cream. Eyewash unit.

Respiratory protection

Type A-P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

Required Minimum Protection Factor	Half-Face Respirator	Full-Face Respirator	Powered Air Respirator
up to 10 x ES	A P1 Air-line*	-	A PAPR-P1 -
up to 50 x ES	Air-line**	A P2	A PAPR-P2
up to 100 x ES	•	A P3	-
		Air-line*	-
100+ x ES		Air-line**	A PAPR-P3

* - Negative pressure demand ** - Continuous flow

A(All classes) = Organic vapours, B AUS or B1 = Acid gasses, B2 = Acid gas or hydrogen cyanide(HCN), B3 = Acid gas or hydrogen cyanide(HCN), E = Sulfur dioxide(SO2), G = Agricultural chemicals, K = Ammonia(NH3), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 degC)

For molten materials:

- Respirators may be necessary when engineering and administrative controls do not adequately prevent exposures.
- The decision to use respiratory protection should be based on professional judgment that takes into account toxicity information, exposure measurement data, and frequency and likelihood of the worker's exposure ensure users are not subject to high thermal loads which may result in heat stress or distress due to personal protective equipment (powered, positive flow, full face apparatus may be an option).
- Published occupational exposure limits, where they exist, will assist in determining the adequacy of the selected respiratory protection. These may be government mandated or vendor recommended.
- · Certified respirators will be useful for protecting workers from inhalation of particulates when properly selected and fit tested as part of a complete respiratory protection program.
- Use approved positive flow mask if significant quantities of dust becomes airborne.

Try to avoid creating dust conditions.

8.2.3. Environmental exposure controls

See section 12

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance Use may require material be molten. Molten or heated material may be compounded, moulded or extruded.			
Physical state	Solid	Relative density (Water = 1)	1.80-2.10

Odour	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Available
pH (as supplied)	Not Available	Decomposition temperature	Not Available
Melting point / freezing point (°C)	Not Available	Viscosity (cSt)	Not Available
Initial boiling point and boiling range (°C)	Not Available	Molecular weight (g/mol)	Not Available
Flash point (°C)	Not Available	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	Not Available	Oxidising properties	Not Available
Upper Explosive Limit (%)	Not Available	Surface Tension (dyn/cm or mN/m)	Not Applicable
Lower Explosive Limit (%)	Not Available	Volatile Component (%vol)	Not Available
Vapour pressure (kPa)	Not Available	Gas group	Not Available
Solubility in water (g/L)	Immiscible	pH as a solution (1%)	Not Available
Vapour density (Air = 1)	Not Available	VOC g/L	Not Available

9.2. Other information

Not Available

SECTION 10 STABILITY AND REACTIVITY

10.1.Reactivity	See section 7.2
10.2. Chemical stability	Product is considered stable and hazardous polymerisation will not occur.
10.3. Possibility of hazardous reactions	See section 7.2
10.4. Conditions to avoid	See section 7.2
10.5. Incompatible materials	See section 7.2
10.6. Hazardous decomposition products	See section 5.3

SECTION 11 TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

	1		
Inhaled	The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting At temperatures of over 400 deg. C the polymer begins to decompose with the reaction becoming faster as temperature rises. Fumes from burning materials containing fluorinated polymers irritate the upper airway and may be harmful if exposure is prolonged. Overheated or burnt polymers releases hydrogen fluoride (a highly irritating and corrosive gas) and small amounts of carbonyl fluoride (highly toxic). Processing for an overly long time or processing at overly high temperatures may cause generation and release of highly irritating vapours, which irritate eyes, nose, throat, causing red itching eyes, coughing, sore throat. Not normally a hazard due to non-volatile nature of product		
Ingestion	Overexposure is unlikely in this form. The material has NOT been classified by EC Directives or other classification systems as "harmful by ingestion". This is because of the lack of corroborating animal or human evidence. High molecular weight material; on single acute exposure would be expected to pass through gastrointestinal tract with little change / absorption. Occasionally accumulation of the solid material within the alimentary tract may result in formation of a bezoar (concretion), producing discomfort.		
Skin Contact	The material is not thought to produce adverse health effects or skin irritation following contact (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable gloves be used in an occupational setting. Molten material is capable of causing burns.		
Еуе	Although the material is not thought to be an irritant (as classified by EC Directives), direct contact with the eye may cause transient discomfort characterised by tearing or conjunctival redness (as with windburn). Slight abrasive damage may also result.		
Chronic	Long-term exposure to the product is not thought to produce chronic effects adverse to the health (as classified by EC Directives using animal models); nevertheless exposure by all routes should be minimised as a matter of course.		
Fluonox Peroxide curable	ΤΟΧΙΟΙΤΥ	IRRITATION	
raw gum	Not Available	Not Available	
vinylidene fluoride/ hexafluoropropene/	ΤΟΧΙΟΙΤΥ	IRRITATION	
tetrafluoroethene	Not Available	Not Available	
Legend:		ered Substances - Acute toxicity 2.* Value obtained from manufacturer's SDS. Unless CS - Register of Toxic Effect of chemical Substances	

Continued...

VINYLIDENE FLUORIDE/ HEXAFLUOROPROPENE/	No significant acute toxicological data identified in literature search.		
TETRAFLUOROETHENE			
Acute Toxicity	0	Carcinogenicity	0
Skin Irritation/Corrosion	\otimes	Reproductivity	\otimes
Serious Eye Damage/Irritation	\otimes	STOT - Single Exposure	\otimes
Respiratory or Skin sensitisation	\otimes	STOT - Repeated Exposure	\otimes
Mutagenicity	\otimes	Aspiration Hazard	\otimes
		.	Data available but does not fill the criteria for classification Data available to make classification

S – Data Not Available to make classification

SECTION 12 ECOLOGICAL INFORMATION

2.1. Toxicity					
Fluonox Peroxide curable raw gum	ENDPOINT Not Available	TEST DURATION (HR) Not Available	SPECIES Not Available	VALUE SOU Not Not Available Avail	-
vinylidene fluoride/ hexafluoropropene/ tetrafluoroethene	ENDPOINT Not Available	TEST DURATION (HR) Not Available	SPECIES Not Available	VALUESOUNotNotAvailableAvail	-
Legend:	Suite V3.12 (QS	SAR) - Aquatic Toxicity Data (Estimat	HA Registered Substances - Ecotoxicolog ed) 4. US EPA, Ecotox database - Aquatı Data 7. METI (Japan) - Bioconcentration D	ic Toxicity Data 5. ECETOC Aquatic Ha	

For other related polyfluorinated polymers: Ecotoxicity is expected to be low based on the near zero water solubility of the polymer. Material is considered inert and is not expected to e biodegradable or toxic.

12.2. Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
	No Data available for all ingredients	No Data available for all ingredients

12.3. Bioaccumulative potential

Ingredient	Bioaccumulation
	No Data available for all ingredients

12.4. Mobility in soil

Ingredient	Mobility
	No Data available for all ingredients

12.5.Results of PBT and vPvB assessment

	Р	В	т
Relevant available data	Not Available	Not Available	Not Available
PBT Criteria fulfilled?	Not Available	Not Available	Not Available

12.6. Other adverse effects

No data available

SECTION 13 DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Product / Packaging disposal	 DO NOT allow wash water from cleaning or process equipment to enter drains. It may be necessary to collect all wash water for treatment before disposal. In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first. Where in doubt contact the responsible authority. 	
Waste treatment options	Not Available	
Sewage disposal options	Not Available	

SECTION 14 TRANSPORT INFORMATION

Marine Pollutant	NO
HAZCHEM	Not Applicable

Inland waterways transport (ADN)

14.1. UN number	Not Applicable	
14.2. UN proper shipping name	Not Applicable	
14.3. Transport hazard class(es)	Class Not Applicable Subrisk Not Applicable	
14.4. Packing group	Not Applicable	
14.5. Environmental hazard	Not Applicable	
14.6. Special precautions	Hazard identification (Kemler) Not Applicable Classification code Not Applicable Hazard Label Not Applicable	
for user	Special provisions Not Applicable	
	Limited quantity Not Applicable	

Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

14.1. UN number	Not Applicable	
14.2. UN proper shipping name	Not Applicable	
14.3. Transport hazard class(es)	ICAO/IATA Class Not Applicable ICAO / IATA Subrisk Not Applicable ERG Code Not Applicable	
14.4. Packing group	Not Applicable	
14.5. Environmental hazard	Not Applicable	
	Special provisions Cargo Only Packing Instructions	Not Applicable
	Cargo Only Maximum Qty / Pack	Not Applicable
14.6. Special precautions for user	Passenger and Cargo Packing Instructions	Not Applicable
	Passenger and Cargo Maximum Qty / Pack	Not Applicable
	Passenger and Cargo Limited Quantity Packing Instructions	Not Applicable
	Passenger and Cargo Limited Maximum Qty / Pack	Not Applicable

Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

14.1. UN number	Not Applicable	
14.2. UN proper shipping name	Not Applicable	
14.3. Transport hazard class(es)	IMDG Class Not Applicable IMDG Subrisk Not Applicable	
14.4. Packing group	Not Applicable	
14.5. Environmental hazard	Not Applicable	
14.6. Special precautions for user	EMS Number Not Applicable Special provisions Not Applicable Limited Quantities Not Applicable	

Inland waterways transport (ADN) : NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

14.1. UN number	Not Applicable	
14.2. UN proper shipping name	Not Applicable	
14.3. Transport hazard class(es)	Not Applicable Not Applicable	
14.4. Packing group	Not Applicable	
14.5. Environmental hazard	Not Applicable	
14.6. Special precautions for user	Classification codeNot ApplicableSpecial provisionsNot ApplicableLimited quantityNot ApplicableEquipment requiredNot Applicable	

Fire cones number Not Applicable

14.7. Transport in bulk according to Annex II of MARPOL and the IBC code

Not Applicable

SECTION 15 REGULATORY INFORMATION

15.1. Safety, health and environmental regulations / legislation specific for the substance or mixture

VINYLIDENE FLUORIDE/ HEXAFLUOROPROPENE/ TETRAFLUOROETHENE(25190-89-0) IS FOUND ON THE FOLLOWING REGULATORY

LISTS Not Applicable

This safety data sheet is in compliance with the following EU legislation and its adaptations - as far as applicable - : Directives 98/24/EC, - 92/85/EEC, - 94/33/EC, - 2008/98/EC, - 2010/75/EU; Commission Regulation (EU) 2015/830; Regulation (EC) No 1272/2008 as updated through ATPs.

15.2. Chemical safety assessment

For further information please look at the Chemical Safety Assessment and Exposure Scenarios prepared by your Supply Chain if available.

ECHA SUMMARY

Ingredient	CAS number	Index No	ECHA Dossier
vinylidene fluoride/ hexafluoropropene/ tetrafluoroethene	25190-89-0	Not Available	Not Available

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Not Classified	Not Available	Not Available
2	Aquatic Chronic 2	GHS09	H411

Harmonisation Code 1 = The most prevalent classification. Harmonisation Code 2 = The most severe classification

National Inventory	Status	
Australia - AICS	Y	
Canada - DSL	Y	
Canada - NDSL	N (vinylidene fluoride/ hexafluoropropene/ tetrafluoroethene)	
China - IECSC	Υ	
Europe - EINEC / ELINCS / NLP	N (vinylidene fluoride/ hexafluoropropene/ tetrafluoroethene)	
Japan - ENCS	Y	
Korea - KECI	Y	
New Zealand - NZIoC	Y	
Philippines - PICCS	Y	
USA - TSCA	Y	
Legend:	Y = All ingredients are on the inventory N = Not determined or one or more ingredients are not on the inventory and are not exempt from listing(see specific ingredients in brackets)	

SECTION 16 OTHER INFORMATION

Revision Date Initial Date	02/06/2018	
Full text Risk and Hazard codes		
H411	Toxic to aquatic life with long lasting effects.	

Other information

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chernwatch Classification committee using available literature references.

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

For detailed advice on Personal Protective Equipment, refer to the following EU CEN Standards:

EN 166 Personal eye-protection

- EN 340 Protective clothing
- EN 374 Protective gloves against chemicals and micro-organisms
- EN 13832 Footwear protecting against chemicals
- EN 133 Respiratory protective devices

Definitions and abbreviations

- PC-TWA: Permissible Concentration-Time Weighted Average
- PC-STEL: Permissible Concentration-Short Term Exposure Limit
- IARC: International Agency for Research on Cancer

ACGIH: American Conference of Governmental Industrial Hygienists

STEL: Short Term Exposure Limit

TEEL: Temporary Emergency Exposure Limit。 IDLH: Immediately Dangerous to Life or Health Concentrations OSF: Odour Safety Factor NOAEL :No Observed Adverse Effect Level LOAEL: Lowest Observed Adverse Effect Level TLV: Threshold Limit Value LOD: Limit Of Detection OTV: Odour Threshold Value BCF: BioConcentration Factors BEI: Biological Exposure Index

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