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Revision Date 04/12/2019

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifier

- Trade name
- Chemical name

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

#### Uses of the Substance / Mixture

- For industrial use only

### 1.3 Details of the supplier of the safety data sheet

#### Company

SOLVAY SPECIALTY POLYMERS USA, LLC  
4500 MCGINNIS FERRY ROAD  
30005-3914, ALPHARETTA  
USA  
Tel: +1-770-7728200  
Fax: +1-770-7728213  
Product Information:  
+1-800-2210553

### 1.4 Emergency telephone

FOR EMERGENCIES INVOLVING A SPILL, LEAK, FIRE, EXPOSURE OR ACCIDENT, CONTACT CHEMTREC (24-Hour Number): 800-424-9300 within the United States and Canada, or 703-527-3887 for international collect calls.

## SECTION 2: Hazards identification

Although OSHA has not adopted the environmental portion of the GHS regulations, this document may include information on environmental effects.

### 2.1 Classification of the substance or mixture

#### HCS 2012 (29 CFR 1910.1200)

Acute toxicity, Category 3  
Acute toxicity, Category 3  
Specific target organ systemic toxicity - repeated exposure, Category 1

H301: Toxic if swallowed.  
H311: Toxic in contact with skin.  
H372: Causes damage to organs through prolonged or repeated exposure. (Liver)

### 2.2 Label elements

#### HCS 2012 (29 CFR 1910.1200)

#### Pictogram



#### Signal Word

- Danger

P02000019776

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# REDACTED

Revision Date 04/12/2019

## Hazard Statements

- H301 + H311
- H372

Toxic if swallowed or in contact with skin.  
Causes damage to organs (Liver) through prolonged or repeated exposure.

## Precautionary Statements

### Prevention

- P260
- P264
- P270
- P280

Do not breathe dust/ fume/ gas/ mist/ vapors/ spray.  
Wash skin thoroughly after handling.  
Do not eat, drink or smoke when using this product.  
Wear protective gloves/ protective clothing.

### Response

- P301 + P310 + P330
- P302 + P352 + P312
- P314
- P362

IF SWALLOWED: Immediately call a POISON CENTER/doctor. Rinse mouth.  
IF ON SKIN: Wash with plenty of water. Call a POISON CENTER/doctor if you feel unwell.  
Get medical advice/ attention if you feel unwell.  
Take off contaminated clothing and wash before reuse.

### Storage

- P405

Store locked up.

### Disposal

- P501

Dispose of contents/ container to an approved waste disposal plant.

## 2.3 Other hazards which do not result in classification

- H411: Toxic to aquatic life with long lasting effects.
- Acute toxicity for the perfluoropolyether ammonium salt: LD50 oral (rat) - 83 mg/kg; LD50 dermal (rat) - 600 mg/kg

## SECTION 3: Composition/information on ingredients

### 3.1 Substance

- Not applicable, this product is a mixture.

### 3.2 Mixture

#### Hazardous Ingredients and Impurities

Chemical name	Identification number CAS-No.	Concentration [%]
1-Propene, 1,1,2,3,3,3-hexafluoro-,telomer with chlorotrifluoroethene, oxidized, reduced, hydrolyzed, ammonium salts	330809-92-2	>= 30 - < 40

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

## SECTION 4: First aid measures

### 4.1 Description of first-aid measures

#### In case of inhalation

- Move to fresh air in case of accidental inhalation of fumes from overheating or combustion.
- Oxygen or artificial-respiration if needed.

#### In case of skin contact

- Wash off with soap and water.
- Immediate medical attention is required.

P02000019776

Version : 3.00 / US ( Z8 )

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# REDACTED

Revision Date 04/12/2019

## In case of eye contact

- Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
- Seek medical advice.

## In case of ingestion

- Drink 1 or 2 glasses of water.
- Do NOT induce vomiting.
- Call a physician immediately.
- Take victim immediately to hospital.

## 4.2 Most important symptoms and effects, both acute and delayed

### In case of inhalation

#### Symptoms

- Inhalation may provoke the following symptoms:
- Nausea
- Headache

#### Effects

- irritation of the upper respiratory tract

### In case of skin contact

#### Effects

- Harmful in contact with skin.

#### Symptoms

- Redness
- Irritation

### In case of eye contact

#### Effects

- May cause permanent eye injury.

#### Symptoms

- Redness
- Irritation

### In case of ingestion

#### Symptoms

- Nausea
- Vomiting
- Abdominal pain

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

- no data available

## SECTION 5: Firefighting measures

### Flash point

The product is not flammable.

### Autoignition temperature

No data available

### Flammability / Explosive limit

No data available

## 5.1 Extinguishing media

P02000019776

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# REDACTED

Revision Date 04/12/2019

## Suitable extinguishing media

- Water
- powder
- Foam
- Dry chemical
- Carbon dioxide (CO<sub>2</sub>)

## Unsuitable extinguishing media

- None.

## 5.2 Special hazards arising from the substance or mixture

### Specific hazards during fire fighting

- The product is not flammable.
- Not explosive
- In case of fire hazardous decomposition products may be produced such as: Gaseous hydrogen fluoride (HF), Fluorophosgene

### Hazardous combustion products:

- Gaseous hydrogen fluoride (HF).
- Fluorophosgene
- Gaseous hydrogen chloride (HCl).

## 5.3 Advice for firefighters

### Special protective equipment for fire-fighters

- Wear self-contained breathing apparatus and protective suit.
- When intervention in close proximity wear acid resistant over suit.

### Further information

- Evacuate personnel to safe areas.
- Approach from upwind.
- Protect intervention team with a water spray as they approach the fire.
- Keep containers and surroundings cool with water spray.
- Keep product and empty container away from heat and sources of ignition.

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

#### Advice for non-emergency personnel

- Prevent further leakage or spillage if safe to do so.

#### Advice for emergency responders

- Ensure adequate ventilation.
- Sweep up to prevent slipping hazard.
- Keep away from open flames, hot surfaces and sources of ignition.

### 6.2 Environmental precautions

- The product should not be allowed to enter drains, water courses or the soil.
- In case of accidental release or spill, immediately notify the appropriate authorities if required by Federal, State/Provincial and local laws and regulations.

P02000019776

Version : 3.00 / US ( Z8 )

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# REDACTED

Revision Date 04/12/2019

- Should not be released into the environment.
- Do not flush into surface water or sanitary sewer system.

## 6.3 Methods and materials for containment and cleaning up

- Soak up with inert absorbent material.
- Suitable material for picking up.
- Dry sand
- Earth
- Shovel into suitable container for disposal.

## 6.4 Reference to other sections

- Refer to protective measures listed in sections 7 and 8.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

- Ensure adequate ventilation.
- Use personal protective equipment.
- Keep away from heat and sources of ignition.
- To avoid thermal decomposition, do not overheat.
- Take measures to prevent the build up of electrostatic charge.
- Clean and dry piping circuits and equipment before any operations.
- Ensure all equipment is electrically grounded before beginning transfer operations.

### Hygiene measures

- Ensure that eyewash stations and safety showers are close to the workstation location.
- When using do not eat, drink or smoke.
- Wash hands before breaks and at the end of workday.
- Handle in accordance with good industrial hygiene and safety practice.

### 7.2 Conditions for safe storage, including any incompatibilities

#### Technical measures/Storage conditions

- Keep container closed.
- Keep away from heat and sources of ignition.
- Keep away from combustible material.
- Keep away from incompatible products
- Provide tight electrical equipment well protected against corrosion.
- Refer to protective measures listed in sections 7 and 8.

### Packaging material

#### **Suitable material**

- Plastic materials.
- glass

### 7.3 Specific end use(s)

- Contact your supplier for additional information

## SECTION 8: Exposure controls/personal protection

Introductory Remarks: These recommendations provide general guidance for handling this product. Because specific work

P02000019776

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REDACTED

Revision Date 04/12/2019

environments and material handling practices vary, safety procedures should be developed for each intended application. Assistance with selection, use and maintenance of worker protection equipment is generally available from equipment manufacturers.

## 8.1 Control parameters

### Components with workplace occupational exposure limits

Components	Value type	Value	Basis
1-Propene, 1,1,2,3,3,3-hexafluoro-,telomer with chlorotrifluoroethene, oxidized, reduced, hydrolyzed, ammonium salts	TWA	0.0035 mg/m3	Solvay Acceptable Exposure Limit
	Skin		

### Threshold limit values of by-products from thermal decomposition:

#### Components with workplace occupational exposure limits

Components	Value type	Value	Basis
Hydrofluoric acid	TWA	3 ppm 2.5 mg/m3	National Institute for Occupational Safety and Health
Hydrofluoric acid	C	6 ppm 5 mg/m3	National Institute for Occupational Safety and Health
		15 minute ceiling value	
Hydrofluoric acid	TWA	3 ppm	Occupational Safety and Health Administration - Table Z-2
		Z37.28-1969	
Hydrofluoric acid	TWA	0.5 ppm	American Conference of Governmental Industrial Hygienists
		Danger of cutaneous absorption Expressed as :Fluorine	
Hydrofluoric acid	C	2 ppm	American Conference of Governmental Industrial Hygienists
		Danger of cutaneous absorption Expressed as :Fluorine	
Hydrofluoric acid			Occupational Safety and Health Administration - Table Z-1 Limits for Air Contaminants
		See Table Z-2Expressed as :Fluorine	
Hydrofluoric acid	PEL	0.4 ppm 0.33 mg/m3	
		SkinExpressed as :Fluorine	
Hydrofluoric acid	STEL	1 ppm 0.83 mg/m3	
		SkinExpressed as :Fluorine	
Carbonic difluoride	TWA	2 ppm	American Conference of Governmental Industrial Hygienists

P02000019776

Version : 3.00 / US ( Z8 )

www.solvay.com



# REDACTED

Revision Date 04/12/2019

Carbonic difluoride	STEL	5 ppm	American Conference of Governmental Industrial Hygienists
Carbonic difluoride	TWA	2 ppm 5 mg/m3	National Institute for Occupational Safety and Health
Carbonic difluoride	ST	5 ppm 15 mg/m3	National Institute for Occupational Safety and Health
Carbonic difluoride	PEL	2 ppm 5 mg/m3	
Carbonic difluoride	STEL	5 ppm 15 mg/m3	
Hydrochloric acid	C	2 ppm	American Conference of Governmental Industrial Hygienists
Hydrochloric acid	C	5 ppm 7 mg/m3	National Institute for Occupational Safety and Health
Often used in an aqueous solution.			
Hydrochloric acid	C	5 ppm 7 mg/m3	Occupational Safety and Health Administration - Table Z-1 Limits for Air Contaminants
The value in mg/m3 is approximate., Ceiling limit is to be determined from breathing-zone air samples.			
Hydrochloric acid	PEL	0.3 ppm 0.45 mg/m3	
Hydrochloric acid	C	2 ppm	

## Biological Exposure Indices

Components	Value type	Value	Basis
Hydrofluoric acid	BEI	2 mg/l Fluoride Urine Prior to shift (16 hours after exposure ceases)	American Conference of Governmental Industrial Hygienists
Hydrofluoric acid	BEI	3 mg/l Fluoride Urine End of shift (As soon as possible after exposure ceases)	American Conference of Governmental Industrial Hygienists



REDACTED

Revision Date 04/12/2019

## 8.2 Exposure controls

### Control measures

#### **Engineering measures**

- Ensure adequate ventilation.
- Provide local ventilation appropriate to the product decomposition risk (see section 10).
- Refer to protective measures listed in sections 7 and 8.
- Apply technical measures to comply with the occupational exposure limits.

### Individual protection measures

#### **Respiratory protection**

- Use respirator when performing operations involving potential exposure to vapor of the product.
- Use only respiratory protection that conforms to international/ national standards.
- Use NIOSH approved respiratory protection.
- Comply with OSHA respiratory protection requirements.

#### **Hand protection**

- Handle in accordance with good industrial hygiene and safety practice.
- Protective gloves - impervious chemical resistant:
  - Nitrile rubber
- Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact).

#### **Eye protection**

- Safety glasses with side-shields
- If splashes are likely to occur, wear:
  - Tightly fitting safety goggles

#### **Skin and body protection**

- Wear chemical resistant oversuit
- Long sleeved clothing
- Chemical resistant apron

#### **Hygiene measures**

- Ensure that eyewash stations and safety showers are close to the workstation location.
- When using do not eat, drink or smoke.
- Wash hands before breaks and at the end of workday.
- Handle in accordance with good industrial hygiene and safety practice.

## **SECTION 9: Physical and chemical properties**

Physical and Chemical properties here represent typical properties of this product. Contact the business area using the Product information phone number in Section 1 for its exact specifications.

### **9.1 Information on basic physical and chemical properties**

#### Appearance

Physical state: liquid  
Color: colorless

#### Odor

odorless

#### Odor Threshold

No data available

P02000019776

Version : 3.00 / US ( Z8 )

www.solvay.com





# REDACTED

Revision Date 04/12/2019

<b><u>pH</u></b>	7.0 - 10.0
<b><u>Melting point/freezing point</u></b>	<u>Melting point/range:</u> Not applicable
<b><u>Initial boiling point and boiling range</u></b>	No data available
<b><u>Flash point</u></b>	The product is not flammable.
<b><u>Evaporation rate (Butylacetate = 1)</u></b>	No data available
<b><u>Flammability (liquids)</u></b>	The product is not flammable.
<b><u>Flammability / Explosive limit</u></b>	No data available
<b><u>Autoignition temperature</u></b>	No data available
<b><u>Vapor pressure</u></b>	No data available
<b><u>Vapor density</u></b>	No data available
<b><u>Density</u></b>	No data available
<b><u>Relative density</u></b>	No data available
<b><u>Solubility</u></b>	<u>Water solubility:</u> soluble  <u>Solubility in other solvents:</u> common organic solvents : insoluble
<b><u>Partition coefficient: n-octanol/water</u></b>	No data available
<b><u>Decomposition temperature</u></b>	> 482 °F (> 250 °C)
<b><u>Viscosity</u></b>	No data available
<b><u>Explosive properties</u></b>	Not explosive
<b><u>Oxidizing properties</u></b>	Not considered as oxidizing.

## 9.2 Other information

No data available

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

### 10.2 Chemical stability

P02000019776

Version : 3.00 / US ( Z8 )

www.solvay.com



REDACTED

Revision Date 04/12/2019

- Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

- No dangerous reaction known under conditions of normal use.

### 10.4 Conditions to avoid

- To avoid thermal decomposition, do not overheat.
- Keep away from flames and sparks.

### 10.5 Incompatible materials

- Combustible material
- Flammable materials
- Metals promote and lower decomposition temperature
- Lewis acids (Friedel-Crafts) above 100°C
- Aluminum and magnesium in powder form above 100°C

### 10.6 Hazardous decomposition products

- Gaseous hydrogen fluoride (HF).
- Fluorophosgene
- Gaseous hydrogen chloride (HCl).

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

##### **Acute oral toxicity**

1-Propene, 1,1,2,3,3,3-hexafluoro-,telomer with chlorotrifluoroethene, oxidized, reduced, hydrolyzed, ammonium salts

LD50 : - Rat , male and female  
Method: OECD Test Guideline 423  
This product is classified as acute toxicity category 3  
Unpublished internal reports

##### **Acute inhalation toxicity**

No data available

##### **Acute dermal toxicity**

1-Propene, 1,1,2,3,3,3-hexafluoro-,telomer with chlorotrifluoroethene, oxidized, reduced, hydrolyzed, ammonium salts

LD50 : 600 mg/kg - Rat , male and female

LD50 : - Rat , male and female  
Method: OECD Test Guideline 402  
This product is classified as acute toxicity category 3  
Unpublished internal reports

##### **Acute toxicity (other routes of administration)**

No data available

# REDACTED

Revision Date 04/12/2019

## Skin corrosion/irritation

1-Propene, 1,1,2,3,3,3-hexafluoro-  
telomer with chlorotrifluoroethene,  
oxidized, reduced, hydrolyzed,  
ammonium salts

Rabbit  
No skin irritation  
Method: OECD Test Guideline 404  
Test substance: 5 % solution  
Solvent  
Water  
Unpublished internal reports

Not classified as irritating to skin  
By analogy

Test substance: Sodium salts

Test substance: 20 % solution

Test substance: Water

## Serious eye damage/eye irritation

No data available

## Respiratory or skin sensitization

No data available

# REDACTED

Revision Date 04/12/2019

## Mutagenicity

### **Genotoxicity in vitro**

1-Propene, 1,1,2,3,3,3-hexafluoro-  
telomer with chlorotrifluoroethene,  
oxidized, reduced, hydrolyzed,  
ammonium salts

By analogy  
Product is not considered to be genotoxic

Mutagenicity (Salmonella typhimurium - reverse mutation assay)  
Strain: Salmonella typhimurium and Escherichia coli  
with and without metabolic activation

negative  
Method: OECD Test Guideline 471  
Information given is based on data obtained from similar substances.  
Unpublished reports

By analogy

Chromosome aberration test in vitro  
Strain: Chinese hamster ovary cells  
with and without metabolic activation

negative  
Method: OECD Test Guideline 473  
Information given is based on data obtained from similar substances.  
Unpublished internal reports

By analogy

Gene mutation assays in mammalian cells.  
Strain: mouse lymphoma cells  
with and without metabolic activation

negative  
Method: OECD Test Guideline 476  
Information given is based on data obtained from similar substances.  
Unpublished internal reports

### **Genotoxicity in vivo**

No data available

## Carcinogenicity

No data available

This product does not contain any ingredient designated as probable or suspected human carcinogens by:

NTP  
IARC  
OSHA

## Toxicity for reproduction and development

### **Toxicity to reproduction / fertility**

No data available

### **Developmental Toxicity/Teratogenicity**

No data available



REDACTED

Revision Date 04/12/2019

## **STOT**

### **STOT-single exposure**

1-Propene, 1,1,2,3,3,3-hexafluoro-,telomer with chlorotrifluoroethene, oxidized, reduced, hydrolyzed, ammonium salts

The substance or mixture is not classified as specific target organ toxicant, single exposure according to GHS criteria.

### **STOT-repeated exposure**

1-Propene, 1,1,2,3,3,3-hexafluoro-,telomer with chlorotrifluoroethene, oxidized, reduced, hydrolyzed, ammonium salts

Target Organs: Liver

The substance or mixture is classified as specific target organ toxicant, repeated exposure, category 1 according to GHS criteria.

1-Propene, 1,1,2,3,3,3-hexafluoro-,telomer with chlorotrifluoroethene, oxidized, reduced, hydrolyzed, ammonium salts

Oral 28-day - Rat , male and female

NOEL: < 0.3 mg/kg

Target Organs: Liver

Method: OECD Test Guideline 407

Unpublished internal reports

Oral 90-day - Rat , male

NOAEL: 0.05 mg/kg bw/day

Target Organs: Liver

Method: OECD Test Guideline 408

Unpublished internal reports

Oral 90-day - Rat , female

NOAEL: 0.1 mg/kg bw/day

Target Organs: Liver

Method: OECD Test Guideline 408

Unpublished internal reports

### **Experience with human exposure**

No data available

## **CMR effects**

### **Mutagenicity**

1-Propene, 1,1,2,3,3,3-hexafluoro-,telomer with chlorotrifluoroethene, oxidized, reduced, hydrolyzed, ammonium salts

In vitro tests did not show mutagenic effects

### **Aspiration toxicity**

1-Propene, 1,1,2,3,3,3-hexafluoro-,telomer with chlorotrifluoroethene, oxidized, reduced, hydrolyzed, ammonium salts

Not applicable

### **Further information**

Description of possible hazardous to health effects is based on experience and/or toxicological characteristics of several ingredients.

# REDACTED

Revision Date 04/12/2019

## SECTION 12: Ecological information

### 12.1 Toxicity

#### Aquatic Compartment

Acute toxicity to fish No data available

Acute toxicity to daphnia and other aquatic invertebrates No data available

Toxicity to aquatic plants No data available

Toxicity to microorganisms No data available

Chronic toxicity to fish No data available

Chronic toxicity to daphnia and other aquatic invertebrates No data available

### 12.2 Persistence and degradability

Abiotic degradation No data available

Physical- and photo-chemical elimination No data available

Biodegradation No data available

### 12.3 Bioaccumulative potential

Partition coefficient: n-octanol/water No data available

Bioconcentration factor (BCF) No data available

### 12.4 Mobility in soil

Adsorption potential (Koc) No data available

Known distribution to environmental compartments No data available

### 12.5 Results of PBT and vPvB assessment

No data available

# REDACTED

Revision Date 04/12/2019

## 12.6 Other adverse effects

No data available

## Remarks

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment., Avoid release to the environment.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

#### Product Disposal

- Do not dump into any sewers, on the ground, or into any body of water. All disposal methods must be in compliance with all Federal, State/Provincial and local laws and regulations. Regulations may vary in different locations.
- Waste characterizations and compliance with applicable laws and regulations are the responsibility of the waste generator.
- Can be incinerated, when in compliance with local regulations.
- The incinerator must be equipped with a system for the neutralization or recovery of HF.

#### Advice on cleaning and disposal of packaging

- Empty containers can be landfilled, when in accordance with the local regulations.

## SECTION 14: Transport information

Transportation status: IMPORTANT! Statements below provide additional data on listed transport classification. The listed Transportation Classification does not address regulatory variations due to changes in package size, mode of shipment or other regulatory descriptors.

### DOT

<b>14.1 UN number</b>	UN 2810
<b>14.2 Proper shipping name</b>	TOXIC, LIQUIDS, ORGANIC, N.O.S., Mixture (Chlorofluoropolyether, ammonium salt)
<b>14.3 Transport hazard class</b>	6.1
<b>Label(s)</b>	6.1
<b>14.4 Packing group</b>	III
<b>Packing group</b>	153
<b>ERG No</b>	
<b>14.5 Environmental hazards</b>	YES
<b>Marine pollutant</b>	Marine Pollutant

### TDG

<b>14.1 UN number</b>	UN 2810
<b>14.2 Proper shipping name</b>	TOXIC LIQUID, ORGANIC, N.O.S., Mixture (Chlorofluoropolyether, ammonium salt)

P02000019776

Version : 3.00 / US ( Z8 )

www.solvay.com



# REDACTED

Revision Date 04/12/2019

<b>14.3 Transport hazard class</b>	6.1
Label(s)	6.1
<b>14.4 Packing group</b>	
Packing group	III
ERG No	153
<b>14.5 Environmental hazards</b>	YES
Marine pollutant	Marine Pollutant

## NOM

<b>14.1 UN number</b>	UN 2810
<b>14.2 Proper shipping name</b>	TOXIC LIQUID, ORGANIC, N.O.S., Mixture (Chlorofluoropolyether, ammonium salt)
<b>14.3 Transport hazard class</b>	6.1
Label(s)	6.1
<b>14.4 Packing group</b>	
Packing group	III
ERG No	153
<b>14.5 Environmental hazards</b>	YES
Marine pollutant	

## IMDG

<b>14.1 UN number</b>	UN 2810
<b>14.2 Proper shipping name</b>	TOXIC LIQUID, ORGANIC, N.O.S., Mixture (Chlorofluoropolyether, ammonium salt)
<b>14.3 Transport hazard class</b>	6.1
Label(s)	6.1
<b>14.4 Packing group</b>	
Packing group	III
<b>14.5 Environmental hazards</b>	YES
Marine pollutant	
<b>14.6 Special precautions for user</b>	
EmS	F-A , S-A

For personal protection see section 8.



# REDACTED

Revision Date 04/12/2019

## IATA

<b>14.1 UN number</b>	UN 2810
<b>14.2 Proper shipping name</b>	TOXIC LIQUID, ORGANIC, N.O.S., Mixture (Chlorofluoropolyether, ammonium salt)
<b>14.3 Transport hazard class</b>	6.1
Label(s):	6.1
<b>14.4 Packing group</b>	III
Packing instruction (cargo aircraft)	663
Max net qty / pkg	220.00 L
Packing instruction (passenger aircraft)	655
Max net qty / pkg	60.00 L
<b>14.5 Environmental hazards</b>	YES
<b>14.6 Special precautions for user</b>	
For personal protection see section 8.	

Note: The above regulatory prescriptions are those valid on the date of publication of this sheet. Given the possible evolution of transportation regulations for hazardous materials, it would be advisable to check their validity with your sales office.

REDACTED

Revision Date 04/12/2019

## SECTION 15: Regulatory information

### 15.1 Notification status

Inventory Information	Status
United States TSCA Inventory	<ul style="list-style-type: none"> <li>- In compliance with the inventory</li> <li>- Low volume exemption</li> <li>- Uses are restricted to a surfactant and/or surface treatment.</li> <li>- No spray applications are permitted.</li> <li>- No consumer applications are allowed.</li> </ul>
Canadian Domestic Substances List (DSL)	<ul style="list-style-type: none"> <li>- One or more components not listed on inventory</li> </ul>
Canadian Non-Domestic Substances List (NDSL)	<ul style="list-style-type: none"> <li>- One or more components not listed on inventory</li> </ul>
Australia Inventory of Chemical Substances (AICS)	<ul style="list-style-type: none"> <li>- One or more components not listed on inventory</li> </ul>
Korea. Korean Existing Chemicals Inventory (KECI)	<ul style="list-style-type: none"> <li>- One or more components not listed on inventory</li> </ul>
China. Inventory of Existing Chemical Substances in China (IECSC)	<ul style="list-style-type: none"> <li>- One or more components not listed on inventory</li> </ul>
Japan. ISHL - Inventory of Chemical Substances	<ul style="list-style-type: none"> <li>- One or more components is/are in Small Quantity Exemption (SQE).</li> <li>- This exemption is valid only for manufacture or import by Solvay. Contact Solvay for further details.</li> </ul>
Japan. CSCL - Inventory of Existing and New Chemical Substances	<ul style="list-style-type: none"> <li>- One or more components is/are in Small Quantity Exemption (SQE).</li> <li>- This exemption is valid only for manufacture or import by Solvay. Contact Solvay for further details.</li> </ul>
Philippines Inventory of Chemicals and Chemical Substances (PICCS)	<ul style="list-style-type: none"> <li>- One or more components not listed on inventory</li> </ul>
New Zealand. Inventory of Chemical Substances	<ul style="list-style-type: none"> <li>- One or more components not listed on inventory</li> </ul>
Taiwan. Chemical Substance Inventory (TCSI)	<ul style="list-style-type: none"> <li>- One or more components not listed on inventory</li> </ul>
EU. European Registration, Evaluation, Authorisation and Restriction of Chemical (REACH)	<ul style="list-style-type: none"> <li>- If product is purchased from Solvay in Europe it is in compliance with REACH, if not please contact the supplier.</li> </ul>

### 15.2 Federal Regulations

#### US. EPA EPCRA SARA Title III

#### SARA HAZARD DESIGNATION SECTIONS 311/312 (40 CFR 370)

Acute toxicity (any route of exposure)	Yes
--	-----

P02000019776

Version : 3.00 / US ( Z8 )

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Revision Date 04/12/2019

Specific target organ toxicity (single or repeated exposure)	Yes
--	-----

The categories not mentioned are not relevant for the product.

## Section 313 Toxic Chemicals (40 CFR 372.65)

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

## Section 302 Emergency Planning Extremely Hazardous Substance Threshold Planning Quantity (40 CFR 355)

This material does not contain any components with a section 302 EHS TPQ.

## Section 302 Emergency Planning Extremely Hazardous Substance Reportable Quantity (40 CFR 355)

This material does not contain any components with a SARA 302 RQ.

## Section 304 Emergency Release Notification Reportable Quantity (40 CFR 355)

This material does not contain any components with a section 304 EHS RQ.

## US. EPA CERCLA Hazardous Substances and Reportable Quantities (40 CFR 302.4)

This material does not contain any components with a CERCLA RQ.

## 15.3 State Regulations

### US. California Safe Drinking Water & Toxic Enforcement Act (Proposition 65)

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

## SECTION 16: Other information

### Further information

- Product evaluated under the US GHS format.

Date Prepared: 04/12/2019

### Key or legend to abbreviations and acronyms used in the safety data sheet

- |         |  |
|---------|--|
| - C     | Ceiling limit  |
| - PEL   | Permissible exposure limit   |
| - ST    | STEL - 15-minute TWA exposure that should not be exceeded at any time during a workday |
| - STEL  | Short term exposure limit  |
| - TWA   | 8-hour, time-weighted average  |
| - SAEL  | Solvay Acceptable Exposure Limit   |
| - ACGIH | American Conference of Governmental Industrial Hygienists                              |
| - OSHA  | Occupational Safety and Health Administration  |
| - NTP   | National Toxicology Program  |
| - IARC  | International Agency for Research on Cancer  |
| - NIOSH | National Institute for Occupational Safety and Health                                  |

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information, and belief at the date of its publication. Such information is only given as a guidance to help the user handle, use, process, store, transport, dispose, and release the product in satisfactory safety conditions and is not to be considered as a warranty or quality specification. It should be used in conjunction with technical sheets but do not replace them. Thus, the information only relates to the designated specific product and may not be applicable if such product is used in combination with other materials or in any other manufacturing process, unless otherwise specifically indicated. It does not release the user from ensuring he is in conformity with all regulations linked to its activity.

P02000019776

Version : 3.00 / US ( Z8 )

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# REDACTED

Revision Date 04/12/2019

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifier

- Trade name REDACTED

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

#### Uses of the Substance / Mixture

- For industrial use only

### 1.3 Details of the supplier of the safety data sheet

#### Company

SOLVAY SPECIALTY POLYMERS USA, LLC  
4500 McGINNIS FERRY ROAD  
30005-3914, ALPHARETTA  
USA  
Tel: +1-770-7728200  
Fax: +1-770-7728213  
Product Information:  
+1-800-2210553

### 1.4 Emergency telephone

FOR EMERGENCIES INVOLVING A SPILL, LEAK, FIRE, EXPOSURE OR ACCIDENT, CONTACT CHEMTREC (24-Hour Number): 800-424-9300 within the United States and Canada, or 703-527-3887 for international collect calls.

## SECTION 2: Hazards identification

Although OSHA has not adopted the environmental portion of the GHS regulations, this document may include information on environmental effects.

### 2.1 Classification of the substance or mixture

#### HCS 2012 (29 CFR 1910.1200)

Acute toxicity, Category 4  
Acute toxicity, Category 4  
Specific target organ systemic toxicity - repeated exposure, Category 1

H302: Harmful if swallowed.  
H312: Harmful in contact with skin.  
H372: Causes damage to organs through prolonged or repeated exposure. (Liver)

### 2.2 Label elements

#### HCS 2012 (29 CFR 1910.1200)

#### Pictogram



#### Signal Word

- Danger

#### Hazard Statements

P00000034030

Version : 3.00 / US ( Z8 )

www.solvay.com





# REDACTED

Revision Date 04/12/2019

- H302 + H312
- H372

Harmful if swallowed or in contact with skin.  
Causes damage to organs (Liver) through prolonged or repeated exposure.

## Precautionary Statements

### Prevention

- P260
- P264
- P270
- P280

Do not breathe dust/ fume/ gas/ mist/ vapors/ spray.  
Wash skin thoroughly after handling.  
Do not eat, drink or smoke when using this product.  
Wear protective gloves/ protective clothing.

### Response

- P301 + P312 + P330
- P302 + P352 + P312
- P314
- P363

IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.  
IF ON SKIN: Wash with plenty of water. Call a POISON CENTER/doctor if you feel unwell.  
Get medical advice/ attention if you feel unwell.  
Wash contaminated clothing before reuse.

### Disposal

- P501

Dispose of contents/ container to an approved waste disposal plant.

## 2.3 Other hazards which do not result in classification

- H412: Harmful to aquatic life with long lasting effects.
- Acute toxicity for the perfluoropolyether ammonium salt: LD50 oral (rat) - 83 mg/kg; LD50 dermal (rat) - 600 mg/kg

## SECTION 3: Composition/information on ingredients

### 3.1 Substance

- Not applicable, this product is a mixture.

### 3.2 Mixture

#### Hazardous Ingredients and Impurities

Chemical name	Identification number CAS-No.	Concentration [%]
1-Propene, 1,1,2,3,3,3-hexafluoro-,telomer with chlorotrifluoroethene, oxidized, reduced, hydrolyzed, ammonium salts	330809-92-2	>= 10 - < 25

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

#### Non Hazardous Ingredients and Impurities

Chemical name	Identification number CAS-No.	Concentration [%]
Water	7732-18-5	75- 90

## SECTION 4: First aid measures

### 4.1 Description of first-aid measures

#### In case of inhalation

- Move to fresh air in case of accidental inhalation of fumes from overheating or combustion.
- Oxygen or artificial respiration if needed.

#### In case of skin contact

- Wash off immediately with plenty of water.

P00000034030

Version : 3.00 / US ( Z8 )

www.solvay.com



# REDACTED

Revision Date 04/12/2019

- Consult a physician.

#### **In case of eye contact**

- Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
- If eye irritation persists, consult a specialist.

#### **In case of ingestion**

- If accidentally swallowed obtain immediate medical attention.

### **4.2 Most important symptoms and effects, both acute and delayed**

#### **In case of skin contact**

##### **Effects**

- Harmful in contact with skin.

##### **Symptoms**

- Redness

#### **In case of eye contact**

##### **Effects**

- May cause permanent eye injury.

##### **Symptoms**

- Redness

#### **In case of ingestion**

##### **Symptoms**

- Ingestion may provoke the following symptoms:
- Nausea
- Vomiting
- Abdominal pain

#### **In case of skin contact**

##### **Effects**

- May cause skin irritation and/or dermatitis.
- Redness

#### **In case of eye contact**

##### **Effects**

- Contact with eyes may cause irritation.
- Redness

#### **In case of ingestion**

##### **Symptoms**

- Ingestion may provoke the following symptoms:
- Nausea
- Vomiting
- Abdominal pain

#### **In case of inhalation**

##### **Symptoms**

- Inhalation may provoke the following symptoms:
- Nausea
- Headache

# REDACTED

Revision Date 04/12/2019

## Effects

- irritation of the upper respiratory tract

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

- no data available

## SECTION 5: Firefighting measures

### Flash point

The product is not flammable.

### Autoignition temperature

No data available

### Flammability / Explosive limit

No data available

## 5.1 Extinguishing media

### Suitable extinguishing media

- Water
- powder
- Foam
- Dry chemical
- Carbon dioxide (CO<sub>2</sub>)

### Unsuitable extinguishing media

- None.

## 5.2 Special hazards arising from the substance or mixture

### Specific hazards during fire fighting

- The product is not flammable.
- Not explosive
- In case of fire hazardous decomposition products may be produced such as: Gaseous hydrogen fluoride (HF), Fluorophosgene

### Hazardous combustion products:

- Gaseous hydrogen fluoride (HF).
- Fluorophosgene
- Gaseous hydrogen chloride (HCl).

## 5.3 Advice for firefighters

### Special protective equipment for fire-fighters

- Wear self-contained breathing apparatus and protective suit.
- When intervention in close proximity wear acid resistant over suit.

### Further information

- Evacuate personnel to safe areas.
- Approach from upwind.
- Protect intervention team with a water spray as they approach the fire.
- Keep containers and surroundings cool with water spray.
- Keep product and empty container away from heat and sources of ignition.

P00000034030

Version : 3.00 / US ( Z8 )

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# REDACTED

Revision Date 04/12/2019

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

#### Advice for non-emergency personnel

- Prevent further leakage or spillage if safe to do so.

#### Advice for emergency responders

- Ensure adequate ventilation.
- Sweep up to prevent slipping hazard.
- Keep away from open flames, hot surfaces and sources of ignition.

### 6.2 Environmental precautions

- Should not be released into the environment.
- Do not flush into surface water or sanitary sewer system.
- The product should not be allowed to enter drains, water courses or the soil.
- In case of accidental release or spill, immediately notify the appropriate authorities if required by Federal, State/Provincial and local laws and regulations.

### 6.3 Methods and materials for containment and cleaning up

- Soak up with inert absorbent material.
- Suitable material for picking up.
- Earth
- Dry sand
- Shovel into suitable container for disposal.

### 6.4 Reference to other sections

- Refer to protective measures listed in sections 7 and 8.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

- Ensure adequate ventilation.
- Use personal protective equipment.
- Keep away from heat and sources of ignition.
- To avoid thermal decomposition, do not overheat.
- Take measures to prevent the build up of electrostatic charge.
- Clean and dry piping circuits and equipment before any operations.
- Ensure all equipment is electrically grounded before beginning transfer operations.

#### Hygiene measures

- Ensure that eyewash stations and safety showers are close to the workstation location.
- When using do not eat, drink or smoke.
- Wash hands before breaks and at the end of workday.
- Handle in accordance with good industrial hygiene and safety practice.

### 7.2 Conditions for safe storage, including any incompatibilities

P00000034030

Version : 3.00 / US ( Z8 )

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# REDACTED

Revision Date 04/12/2019

## Technical measures/Storage conditions

- Keep container closed.
- Keep away from heat and sources of ignition.
- Keep in properly labeled containers.
- Keep away from combustible material.
- Keep away from incompatible products
- Provide tight electrical equipment well protected against corrosion.
- Refer to protective measures listed in sections 7 and 8.

## Packaging material

### Suitable material

- Plastic materials.
- glass

## 7.3 Specific end use(s)

- Contact your supplier for additional information

## SECTION 8: Exposure controls/personal protection

Introductory Remarks: These recommendations provide general guidance for handling this product. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. Assistance with selection, use and maintenance of worker protection equipment is generally available from equipment manufacturers.

## 8.1 Control parameters

### Components with workplace occupational exposure limits

Components	Value type	Value	Basis
1-Propene, 1,1,2,3,3,3-hexafluoro-, telomer with chlorotrifluoroethene, oxidized, reduced, hydrolyzed, ammonium salts	TWA	0.0035 mg/m3	Solvay Acceptable Exposure Limit
	Skin		

### Threshold limit values of by-products from thermal decomposition:

### Components with workplace occupational exposure limits

Components	Value type	Value	Basis
Hydrofluoric acid	TWA	3 ppm 2.5 mg/m3	National Institute for Occupational Safety and Health
Hydrofluoric acid	C	6 ppm 5 mg/m3	National Institute for Occupational Safety and Health
		15 minute ceiling value	
Hydrofluoric acid	TWA	3 ppm	Occupational Safety and Health Administration - Table Z-2
		Z37.28-1969	
Hydrofluoric acid	TWA	0.5 ppm	American Conference of Governmental Industrial Hygienists
		Danger of cutaneous absorption Expressed as :Fluorine	

P00000034030

Version : 3.00 / US ( Z8 )

www.solvay.com



REDACTED

Revision Date 04/12/2019

Hydrofluoric acid	C	2 ppm	American Conference of Governmental Industrial Hygienists
Danger of cutaneous absorption Expressed as :Fluorine			
Hydrofluoric acid			Occupational Safety and Health Administration - Table Z-1 Limits for Air Contaminants
See Table Z-2 Expressed as :Fluorine			
Hydrofluoric acid	PEL	0.4 ppm 0.33 mg/m3	
Skin Expressed as :Fluorine			
Hydrofluoric acid	STEL	1 ppm 0.83 mg/m3	
Skin Expressed as :Fluorine			
Carbonic difluoride	TWA	2 ppm	American Conference of Governmental Industrial Hygienists
Carbonic difluoride	STEL	5 ppm	American Conference of Governmental Industrial Hygienists
Carbonic difluoride	TWA	2 ppm 5 mg/m3	National Institute for Occupational Safety and Health
Carbonic difluoride	ST	5 ppm 15 mg/m3	National Institute for Occupational Safety and Health
Carbonic difluoride	PEL	2 ppm 5 mg/m3	
Carbonic difluoride	STEL	5 ppm 15 mg/m3	

#### Biological Exposure Indices

Components	Value type	Value	Basis
Hydrofluoric acid	BEI	2 mg/l Fluoride Urine Prior to shift (16 hours after exposure ceases)	American Conference of Governmental Industrial Hygienists
Hydrofluoric acid	BEI	3 mg/l Fluoride Urine End of shift (As soon as possible after exposure ceases)	American Conference of Governmental Industrial Hygienists

P00000034030

Version : 3.00 / US ( Z8 )

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# REDACTED

Revision Date 04/12/2019

## 8.2 Exposure controls

### Control measures

#### **Engineering measures**

- Ensure adequate ventilation.
- Provide local ventilation appropriate to the product decomposition risk (see section 10).
- Refer to protective measures listed in sections 7 and 8.
- Apply technical measures to comply with the occupational exposure limits.

### Individual protection measures

#### **Respiratory protection**

- Use respirator when performing operations involving potential exposure to vapor of the product.
- Use only respiratory protection that conforms to international/ national standards.
- Use NIOSH approved respiratory protection.
- Comply with OSHA respiratory protection requirements.

#### **Hand protection**

- Handle in accordance with good industrial hygiene and safety practice.
- Protective gloves - impervious chemical resistant:
- Nitrile rubber
- Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact).

#### **Eye protection**

- Safety glasses with side-shields
- If splashes are likely to occur, wear:
- Tightly fitting safety goggles

#### **Skin and body protection**

- Wear chemical resistant oversuit
- Long sleeved clothing
- Chemical resistant apron

#### **Hygiene measures**

- Ensure that eyewash stations and safety showers are close to the workstation location.
- When using do not eat, drink or smoke.
- Wash hands before breaks and at the end of workday.
- Handle in accordance with good industrial hygiene and safety practice.

## SECTION 9: Physical and chemical properties

Physical and Chemical properties here represent typical properties of this product. Contact the business area using the Product information phone number in Section 1 for its exact specifications.

### 9.1 Information on basic physical and chemical properties

#### Appearance

Physical state: liquid  
Color: colorless

#### Odor

odorless

#### Odor Threshold

No data available

P00000034030

Version : 3.00 / US ( Z8 )

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# REDACTED

Revision Date 04/12/2019

<b><u>pH</u></b>	7.0 - 10.0
<b><u>Melting point/freezing point</u></b>	<b><u>Melting point/range:</u></b> Not applicable
<b><u>Initial boiling point and boiling range</u></b>	No data available
<b><u>Flash point</u></b>	The product is not flammable.
<b><u>Evaporation rate (Butylacetate = 1)</u></b>	No data available
<b><u>Flammability (liquids)</u></b>	The product is not flammable.
<b><u>Flammability / Explosive limit</u></b>	No data available
<b><u>Autoignition temperature</u></b>	No data available
<b><u>Vapor pressure</u></b>	No data available
<b><u>Vapor density</u></b>	No data available
<b><u>Density</u></b>	1.04 g/cm <sup>3</sup> ( 68 °F (20 °C))
<b><u>Relative density</u></b>	No data available
<b><u>Solubility</u></b>	<b><u>Water solubility:</u></b> completely soluble
<b><u>Partition coefficient: n-octanol/water</u></b>	No data available
<b><u>Decomposition temperature</u></b>	> 482 °F (> 250 °C)
<b><u>Viscosity</u></b>	No data available
<b><u>Explosive properties</u></b>	Not explosive
<b><u>Oxidizing properties</u></b>	Not considered as oxidizing.

## 9.2 Other information

No data available

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

### 10.2 Chemical stability

P00000034030

Version : 3.00 / US ( Z8 )

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# REDACTED

Revision Date 04/12/2019

- Stable under recommended storage conditions.

## 10.3 Possibility of hazardous reactions

- No dangerous reaction known under conditions of normal use.

## 10.4 Conditions to avoid

- To avoid thermal decomposition, do not overheat.
- Keep away from flames and sparks.

## 10.5 Incompatible materials

- Lewis acids (Friedel-Crafts) above 100°C
- Aluminum and magnesium in powder form above 100°C
- Ammonia
- alkaline hydroxides
- non-aqueous alkalis

## 10.6 Hazardous decomposition products

- Gaseous hydrogen fluoride (HF).
- Fluorophosgene
- Gaseous hydrogen chloride (HCl).

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

##### **Acute oral toxicity**

1-Propene, 1,1,2,3,3,3-hexafluoro-,telomer with chlorotrifluoroethene, oxidized, reduced, hydrolyzed, ammonium salts

LD50 : - Rat , male and female  
Method: OECD Test Guideline 423  
This product is classified as acute toxicity category 3  
Unpublished internal reports

##### **Acute inhalation toxicity**

No data available

##### **Acute dermal toxicity**

1-Propene, 1,1,2,3,3,3-hexafluoro-,telomer with chlorotrifluoroethene, oxidized, reduced, hydrolyzed, ammonium salts

LD50 : 600 mg/kg - Rat , male and female

LD50 : - Rat , male and female  
Method: OECD Test Guideline 402  
This product is classified as acute toxicity category 3  
Unpublished internal reports

##### **Acute toxicity (other routes of administration)**

No data available

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Revision Date 04/12/2019

## Skin corrosion/irritation

1-Propene, 1,1,2,3,3,3-hexafluoro-  
,telomer with chlorotrifluoroethene,  
oxidized, reduced, hydrolyzed,  
ammonium salts

Rabbit  
No skin irritation  
Method: OECD Test Guideline 404  
Test substance: 5 % solution  
Solvent  
Water  
Unpublished internal reports

Not classified as irritating to skin  
By analogy

Test substance: Sodium salts

Test substance: 20 % solution

Test substance: Water

## Serious eye damage/eye irritation

No data available

## Respiratory or skin sensitization

No data available

# REDACTED

Revision Date 04/12/2019

## Mutagenicity

### **Genotoxicity in vitro**

1-Propene, 1,1,2,3,3,3-hexafluoro-  
telomer with chlorotrifluoroethene,  
oxidized, reduced, hydrolyzed,  
ammonium salts

By analogy  
Product is not considered to be genotoxic

Mutagenicity (Salmonella typhimurium - reverse mutation assay)  
Strain: Salmonella typhimurium and Escherichia coli  
with and without metabolic activation

negative  
Method: OECD Test Guideline 471  
Information given is based on data obtained from similar substances.  
Unpublished reports

By analogy

Chromosome aberration test in vitro  
Strain: Chinese hamster ovary cells  
with and without metabolic activation

negative  
Method: OECD Test Guideline 473  
Information given is based on data obtained from similar substances.  
Unpublished internal reports

By analogy

Gene mutation assays in mammalian cells.  
Strain: mouse lymphoma cells  
with and without metabolic activation

negative  
Method: OECD Test Guideline 476  
Information given is based on data obtained from similar substances.  
Unpublished internal reports

### **Genotoxicity in vivo**

No data available

## Carcinogenicity

No data available

This product does not contain any ingredient designated as probable or suspected human carcinogens by:

NTP  
IARC  
OSHA

## Toxicity for reproduction and development

### **Toxicity to reproduction / fertility**

No data available

### **Developmental Toxicity/Teratogenicity**

No data available

P00000034030

Version : 3.00 / US ( Z8 )

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Revision Date 04/12/2019

## STOT

### **STOT-single exposure**

1-Propene, 1,1,2,3,3,3-hexafluoro-,telomer with chlorotrifluoroethene, oxidized, reduced, hydrolyzed, ammonium salts

The substance or mixture is not classified as specific target organ toxicant, single exposure according to GHS criteria.

### **STOT-repeated exposure**

1-Propene, 1,1,2,3,3,3-hexafluoro-,telomer with chlorotrifluoroethene, oxidized, reduced, hydrolyzed, ammonium salts

Target Organs: Liver

The substance or mixture is classified as specific target organ toxicant, repeated exposure, category 1 according to GHS criteria.

1-Propene, 1,1,2,3,3,3-hexafluoro-,telomer with chlorotrifluoroethene, oxidized, reduced, hydrolyzed, ammonium salts

Oral 28-day - Rat , male and female

NOEL: < 0.3 mg/kg

Target Organs: Liver

Method: OECD Test Guideline 407

Unpublished internal reports

Oral 90-day - Rat , male

NOAEL: 0.05 mg/kg bw/day

Target Organs: Liver

Method: OECD Test Guideline 408

Unpublished internal reports

Oral 90-day - Rat , female

NOAEL: 0.1 mg/kg bw/day

Target Organs: Liver

Method: OECD Test Guideline 408

Unpublished internal reports

## Experience with human exposure

No data available

## CMR effects

### **Mutagenicity**

1-Propene, 1,1,2,3,3,3-hexafluoro-,telomer with chlorotrifluoroethene, oxidized, reduced, hydrolyzed, ammonium salts

In vitro tests did not show mutagenic effects

### **Aspiration toxicity**

1-Propene, 1,1,2,3,3,3-hexafluoro-,telomer with chlorotrifluoroethene, oxidized, reduced, hydrolyzed, ammonium salts

Not applicable

## Further information

Description of possible hazardous to health effects is based on experience and/or toxicological characteristics of several ingredients.



# REDACTED

Revision Date 04/12/2019

## SECTION 12: Ecological information

### 12.1 Toxicity

#### Aquatic Compartment

Acute toxicity to fish No data available

Acute toxicity to daphnia and other aquatic invertebrates No data available

Toxicity to aquatic plants No data available

Toxicity to microorganisms No data available

Chronic toxicity to fish No data available

Chronic toxicity to daphnia and other aquatic invertebrates No data available

### 12.2 Persistence and degradability

Abiotic degradation No data available

Physical- and photo-chemical elimination No data available

Biodegradation No data available

### 12.3 Bioaccumulative potential

Partition coefficient: n-octanol/water No data available

Bioconcentration factor (BCF) No data available

### 12.4 Mobility in soil

Adsorption potential (Koc) No data available

Known distribution to environmental compartments No data available

### 12.5 Results of PBT and vPvB assessment

No data available

REDACTED

Revision Date 04/12/2019

**12.6 Other adverse effects**

No data available

**Remarks**

Harmful to aquatic life with long lasting effects.

Avoid release to the environment.

**SECTION 13: Disposal considerations**

**13.1 Waste treatment methods**

**Product Disposal**

- Do not dump into any sewers, on the ground, or into any body of water. All disposal methods must be in compliance with all Federal, State/Provincial and local laws and regulations. Regulations may vary in different locations.
- Waste characterizations and compliance with applicable laws and regulations are the responsibility of the waste generator.
- Can be incinerated, when in compliance with local regulations.
- The incinerator must be equipped with a system for the neutralization or recovery of HF.

**Advice on cleaning and disposal of packaging**

- Empty containers can be landfilled, when in accordance with the local regulations.

**SECTION 14: Transport information**

**DOT**

not regulated

**TDG**

not regulated

**NOM**

not regulated

**IMDG**

not regulated

**IATA**

not regulated

Note: The above regulatory prescriptions are those valid on the date of publication of this sheet. Given the possible evolution of transportation regulations for hazardous materials, it would be advisable to check their validity with your sales office.

REDACTED

Revision Date 04/12/2019

## SECTION 15: Regulatory information

### 15.1 Notification status

Inventory Information	Status
United States TSCA Inventory	<ul style="list-style-type: none"> <li>- In compliance with the inventory</li> <li>- Low volume exemption</li> <li>- Uses are restricted to a surfactant and/or surface treatment.</li> <li>- No spray applications are permitted.</li> <li>- No consumer applications are allowed.</li> </ul>
Canadian Domestic Substances List (DSL)	<ul style="list-style-type: none"> <li>- One or more components not listed on inventory</li> </ul>
Canadian Non-Domestic Substances List (NDSL)	<ul style="list-style-type: none"> <li>- One or more components not listed on inventory</li> </ul>
Australia Inventory of Chemical Substances (AICS)	<ul style="list-style-type: none"> <li>- One or more components not listed on inventory</li> </ul>
Korea. Korean Existing Chemicals Inventory (KECI)	<ul style="list-style-type: none"> <li>- One or more components not listed on inventory</li> </ul>
China. Inventory of Existing Chemical Substances in China (IECSC)	<ul style="list-style-type: none"> <li>- One or more components not listed on inventory</li> </ul>
Japan. ISHL - Inventory of Chemical Substances	<ul style="list-style-type: none"> <li>- Small Quantity Exemption (SQE)</li> <li>- This exemption is valid only for manufacture or import by Solvay. Contact Solvay for further details.</li> </ul>
Japan. CSCL - Inventory of Existing and New Chemical Substances	<ul style="list-style-type: none"> <li>- Small Quantity Exemption (SQE)</li> <li>- This exemption is valid only for manufacture or import by Solvay. Contact Solvay for further details.</li> </ul>
Philippines Inventory of Chemicals and Chemical Substances (PICCS)	<ul style="list-style-type: none"> <li>- One or more components not listed on inventory</li> </ul>
New Zealand. Inventory of Chemical Substances	<ul style="list-style-type: none"> <li>- One or more components not listed on inventory</li> </ul>
Taiwan. Chemical Substance Inventory (TCSI)	<ul style="list-style-type: none"> <li>- One or more components not listed on inventory</li> </ul>
EU. European Registration, Evaluation, Authorisation and Restriction of Chemical (REACH)	<ul style="list-style-type: none"> <li>- If product is purchased from Solvay in Europe it is in compliance with REACH, if not please contact the supplier.</li> </ul>

### 15.2 Federal Regulations

#### US. EPA EPCRA SARA Title III

#### SARA HAZARD DESIGNATION SECTIONS 311/312 (40 CFR 370)

Acute toxicity (any route of exposure)	Yes
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P00000034030

Version : 3.00 / US ( Z8 )

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Revision Date 04/12/2019

Specific target organ toxicity (single or repeated exposure)	Yes
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The categories not mentioned are not relevant for the product.

#### Section 313 Toxic Chemicals (40 CFR 372.65)

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

#### Section 302 Emergency Planning Extremely Hazardous Substance Threshold Planning Quantity (40 CFR 355)

This material does not contain any components with a section 302 EHS TPQ.

#### Section 302 Emergency Planning Extremely Hazardous Substance Reportable Quantity (40 CFR 355)

This material does not contain any components with a SARA 302 RQ.

#### Section 304 Emergency Release Notification Reportable Quantity (40 CFR 355)

This material does not contain any components with a section 304 EHS RQ.

#### US. EPA CERCLA Hazardous Substances and Reportable Quantities (40 CFR 302.4)

This material does not contain any components with a CERCLA RQ.

### 15.3 State Regulations

#### US. California Safe Drinking Water & Toxic Enforcement Act (Proposition 65)

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

## SECTION 16: Other information

#### Further information

- Product evaluated under the US GHS format.

Date Prepared: 04/12/2019

#### Key or legend to abbreviations and acronyms used in the safety data sheet

- C	Ceiling limit
- PEL	Permissible exposure limit
- ST	STEL - 15-minute TWA exposure that should not be exceeded at any time during a workday
- STEL	Short term exposure limit
- TWA	8-hour, time-weighted average
- SAEL	Solvay Acceptable Exposure Limit
- ACGIH	American Conference of Governmental Industrial Hygienists
- OSHA	Occupational Safety and Health Administration
- NTP	National Toxicology Program
- IARC	International Agency for Research on Cancer
- NIOSH	National Institute for Occupational Safety and Health

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information, and belief at the date of its publication. Such information is only given as a guidance to help the user handle, use, process, store, transport, dispose, and release the product in satisfactory safety conditions and is not to be considered as a warranty or quality specification. It should be used in conjunction with technical sheets but do not replace them. Thus, the information only relates to the designated specific product and may not be applicable if such product is used in combination with other materials or in any other manufacturing process, unless otherwise specifically indicated. It does not release the user from ensuring he is in conformity with all regulations linked to its activity.

P00000034030

Version : 3.00 / US ( Z8 )

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