

**Product:** **VOLTALEF® OILS S**

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SDS No.: 000820-001 (Version 2.0 )

Date 06.04.2011 (Cancel and replace : 24.11.2009)

**1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**

Generic Safety Data Sheet

**Substance name:** VOLTALEF® OILS S

REACH Registration Number: According to REACH regulation, article 2(9), the substance does not require registration.

CAS-No.: 9002-83-9

**Grades :** 1S, 3 S, 10 S**Use of the Substance/Mixture :** Oils and lubricants., Hydraulic fluids**Company/Undertaking Identification:**

Supplier	Arkema France FLUORES 420 rue d'Estienne d'Orves 92705 Colombes Cedex, France Téléphone : +33 (0)1 49 00 80 80 Télécopie : +33 (0)1 49 00 83 96 http://www.arkema.com pars-drp-fds@arkema.com
E-mail address	

**Emergency telephone number** +33 1 49 00 77 77**2. HAZARDS IDENTIFICATION****Classification (Regulation (EC) No 1272/2008):**

This substance is not classified as dangerous according to Regulation (EC) No 1272/2008.

**Classification (Directive 67/548/EEC):**

This substance is not classified as dangerous according to Directive 67/548/EEC.

**Label elements (REGULATION (EC) No 1272/2008):****Hazardous components which must be listed on the label:**

This substance does not require a label.

**Other hazards:****Potential health effects:**

Irritation: At high temperature, products of thermal decomposition can be irritating to skin  
At high temperature, products of thermal decomposition can be irritating to eyes  
Inhalation: Inhalation of vapours due to thermal decomposition : Severely irritating to respiratory system  
Risk of pulmonary oedema

**Physical and chemical hazards:**

Thermal decomposition giving toxic and corrosive products  
Decomposition products: See chapter 10

**Other:**

Results of PBT and vPvB assessment : According to REACH regulation, article 2(9), the substance does not require registration.  
Therefore, this information is not required.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name of the substance<sup>1</sup>: VOLTALEF® OILS S

Chemical Name <sup>1</sup>	EC-No.	CAS-No.	Concentration	Classification Directive 67/548/EEC	Classification Regulation (EC) No 1272/2008
Ethene, chlorotrifluoro-, homopolymer	–	9002-83-9	100 %	–	

<sup>1</sup>: See chapter 14 for Proper Shipping Name

### 4. FIRST AID MEASURES

**Description of necessary first-aid measures, Most important symptoms/effects, acute and delayed:**

**Inhalation:**

Inhalation of vapours due to thermal decomposition : Move to fresh air.  
Oxygen or artificial respiration if needed. Hospitalize immediately. Delayed effects possible  
Put under medical surveillance, even if without initial problems

**Skin contact:**

Wash off immediately with soap and plenty of water.

**Eye contact:**

Wash immediately, abundantly and thoroughly with water. If irritation persists, consult an ophthalmologist.

**Ingestion:**

In case of problems : Consult a doctor.

**Protection of first-aiders:**

Products of thermal decomposition: In case of insufficient ventilation, wear suitable respiratory equipment.

### 5. FIRE-FIGHTING MEASURES

**Extinguishing media:**

**Suitable extinguishing media:** carbon dioxide, Dry powder, Water spray, alcohol-resistant foam

**Special hazards arising from the substance or mixture:**

Thermal decomposition into chlorinated and fluorinated toxic and corrosive products:, Hydrogen fluoride, hydrogen chloride

**Advice for firefighters:**

**Specific methods:**

Ensure a system for the rapid emptying of containers. In case of fire nearby, remove exposed containers.

**Special protective actions for fire-fighters:**

In the event of fire, wear self-contained breathing apparatus.

### 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures:**

Do not smoke. Avoid contact with skin and eyes and inhalation of vapours.

**Environmental precautions:**

Do not release into the environment. Do not let product enter drains. Dam up with sand or inert earth (do not use combustible materials).

**Methods and materials for containment and cleaning up:**

**Recovery:**

Soak up with inert absorbent material. Sand Diatomaceous earth. Rinse with water. Recover waste water for processing later.

**Elimination:**

Recycle if possible. Dispose of in accordance with local regulations.

## 7. HANDLING AND STORAGE

### Precautions for safe handling:

#### Technical measures/Precautions:

Storage and handling precautions applicable to products: Liquid, viscous  
Provide appropriate exhaust ventilation at machinery and at places where dust can be generated. Provide showers, eye-baths.

#### Safe handling advice:

Keep well away from naked flames.

#### Hygiene measures:

Avoid contact with skin and eyes and inhalation of vapours. When using do not eat, drink or smoke.  
Wash hands after handling. Remove contaminated clothing and protective equipment before entering eating areas.

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

Provide a catch-tank in a bunded area.

#### Packaging material:

**Recommended:** Aluminium cans varnished inside

**Specific use(s) (End Use):** None.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### CONTROL PARAMETERS:

#### Products of decomposition:

##### Hydrochloric acid

Source	Date	Value type	Value (ppm)	Value (mg/m3)	Remarks
EU ELV	12 2009	TWA	5	8	Indicative value
ACGIH (US)	2007	Ceiling	2	-	-

##### Hydrogen fluoride

Source	Date	Value type	Value (ppm)	Value (mg/m3)	Remarks
EU ELV	12 2009	STEL	3	2,5	Indicative value
EU ELV	12 2009	TLV	1,8	1,5	Indicative value
ACGIH (US)	2008	TWA	0,5	-	as F
ACGIH (US)	2008	Ceiling	2	-	as F
ACGIH (US)	2008	SKIN	-	-	Can be absorbed through the skin.

#### Derived No Effect Level (DNEL):

According to REACH regulation, article 2(9), the substance does not require registration. Therefore, this information is not required.

#### Predicted No Effect Concentration:

According to REACH regulation, article 2(9), the substance does not require registration. Therefore, this information is not required.

### EXPOSURE CONTROLS:

#### General protective measures:

Ensure sufficient air exchange and/or exhaust in work areas

#### Personal protective equipment:

Respiratory protection: In the case of hazardous fumes, wear self contained breathing apparatus.  
Hand protection: Rubber gloves  
Eye/face protection: Safety glasses  
Skin and body protection: Protective suit., Non-skid boots.

#### Environmental exposure controls:

See chapter 6

## 9. PHYSICAL AND CHEMICAL PROPERTIES

#### Appearance:

**Physical state (20°C):** liquid  
**Colour:** colourless

<b>Odour:</b>	none
<b>Olfactory threshold:</b>	No data available.
<b>pH:</b>	No data available.
<b>Melting point/range :</b>	According to grade < -55 °C -45 °C 0 °C
<b>Boiling point/boiling range :</b>	According to grade > 141 °C > 256 °C > 323 °C
<b>Flash point:</b>	No flash point in test conditions
<b>Evaporation rate:</b>	No data available.
<b><u>Flammability (solid, gas):</u></b>	
Flammability:	not applicable
<b>Vapour pressure:</b>	According to grade 10 hPa , at 25 °C 0,03 hPa < 0,001 hPa
<b>Vapour density:</b>	No data available.
<b>Density:</b>	1.860 - 1.930 kg/m <sup>3</sup> , at 20 °C
<b>Water solubility:</b>	insoluble at 20 °C
<b>Partition coefficient: n-octanol/water:</b>	log Kow : = 1,65 (calculated)
<b>Autoignition temperature:</b>	No data available.
<b>Decomposition temperature:</b>	> 300 °C
<b>Viscosity, dynamic:</b>	According to grade 9,3 mPa.s 115 mPa.s 1.550 mPa.s
<b><u>Explosive properties:</u></b>	
Explosivity:	Not relevant (due to the chemical structure)
<b>Oxidizing properties:</b>	Not relevant (due to the chemical structure)
<b><u>Other data:</u></b>	
<b>Solubility in other solvents:</b>	Soluble in: Hydrocarbons , Chlorinated solvents , Alcohols , Ketones , Esters

## 10. STABILITY AND REACTIVITY

### Reactivity & Chemical stability:

The product is stable under normal handling and storage conditions.

### Conditions to avoid:

High temperatures. Heat, flames and sparks.

### Thermal decomposition:

Decomposition temperature: > 300 °C

### Hazardous decomposition products:

Thermal decomposition into chlorinated and fluorinated toxic and corrosive products:, Hydrogen fluoride, hydrogen chloride

## 11. TOXICOLOGICAL INFORMATION

### Toxicological information:

#### Acute toxicity:

##### Inhalation:

Thermal decomposition over 350°C can provoke pseudo-flu condition with fever and muscular pains (polymer fever)  
Inhalation of vapours due to thermal decomposition:, HF / HCl

##### Ingestion:

• In animals:

**Slightly harmful by ingestion**  
LD50/rat: > 5.000 mg/kg

**Local effects ( Corrosion / Irritation / Serious eye damage ):**

**Skin contact:** At high temperature, products of thermal decomposition can be irritating to skin, HF / HCl  
Corrosive to skin

- In animals: Non irritating to skin (rabbit)

**Eye contact:** At high temperature, products of thermal decomposition can be irritating to eyes

- In animals: Not irritating to the eyes. (rabbit)

**Respiratory or skin sensitization:**

**Inhalation:** No data available.

**Skin contact:** No data available.

**CMR effects :**

**Mutagenicity:** No data available.

**Carcinogenicity:** No data available.

**Reproductive toxicity:** No data available.

**Specific target organ toxicity :**

**Single exposure :**

**Inhalation:** At high temperature, products of thermal decomposition can be irritating to respiratory system , HF / HCl  
Severely irritating to respiratory system , Risk of pulmonary oedema

**Repeated exposure:** No data available.

**Aspiration hazard:** No data available.

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**12. ECOLOGICAL INFORMATION**

**Acute toxicity**

**Aquatic invertebrates:** No data available.

**Microorganisms:** No data available.

**Persistence and degradability :**

**Biodegradation (In water):** Inert polymer No specific data but by analogy, the product is considered like : Not readily biodegradable.

**Bioaccumulative potential :**

**Bioaccumulation:** **Practically not bioaccumulable**  
Partition coefficient: n-octanol/water: log Kow : = 1,65 (Method: calculated)

**Mobility in soil - Distribution among environmental compartments:**

**Absorption / desorption:** Slight adsorption

**Results of PBT and vPvB assessment :**

According to REACH regulation, article 2(9), the substance does not require registration. Therefore, this information is not required.

### 13. DISPOSAL CONSIDERATIONS

**Waste treatment:**

**Disposal of product:** If recycling is not practicable, dispose of in compliance with local regulations.

### 14. TRANSPORT INFORMATION

Not classified as dangerous in the meaning of transport regulations.

### 15. REGULATORY INFORMATION

Safety data sheets: according to Regulation (EC) No. 1907/2006

**Chemical Safety Assessment:**

According to REACH regulation, article 2(9), the substance does not require registration. Therefore, this information is not required.

**INVENTORIES:**

EINECS: Conforms to  
TSCA: Conforms to  
AICS: Conforms to  
DSL: All components of this product are on the Canadian DSL list.  
ENCS (JP): Conforms to  
KECI (KR): Conforms to  
PICCS (PH): Conforms to  
IECSC (CN): Conforms to

### 16. OTHER INFORMATION

**Update:**

Safety datasheet sections which have been updated:		Type:
2	Classification and labelling, Potential health effects	Additions, Revisions
5	Suitable extinguishing media	Additions
6	Methods for cleaning up	Revisions
8	Derived No Effect Level (DNEL), Predicted No Effect Concentration, Respiratory protection, Hand protection, Skin and body protection	Additions, Revisions
9	Flammability (solid, gas), Explosive properties, Oxidizing properties	Additions
10	Conditions to avoid	Additions
12	Biodegradation, Bioaccumulation, Absorption / desorption, PBT assessment	Additions, Revisions
15	Chemical Safety Assessment	Additions

**Thesaurus:**

NOAEL : No Observed Adverse Effect Level (NOAEL)  
LOAEL : Lowest Observed Adverse Effect Level (LOAEL)  
bw : Body weight  
food : oral feed  
dw : Dry weight  
vPvB : very Persistent and very Bioaccumulative  
PBT : Persistent, Bioaccumulative and Toxic

This information applies to the PRODUCT AS SUCH and conforming to specifications of ARKEMA. In case of formulations or mixtures, it is necessary to ascertain that a new danger will not appear. The information contained is based on our knowledge of the product, at the date of publishing and it is given quite sincerely. Users are advised of possible additional hazards when the product is used in applications for which it was not intended. This sheet shall only be used and reproduced for prevention and security purposes. The references to legislative, regulatory and codes of practice documents cannot be considered as exhaustive. It is the responsibility of the person receiving the product to refer to the totality of the official documents concerning the use, the possession and the handling of the product. It is also the responsibility of the handlers of the product to pass on to any subsequent persons who will come into contact with the product (usage, storage, cleaning of containers, other processes) the totality of the information contained within this safety data sheet and necessary for safety at work, the protection of health and the protection of environment.

**NB: In this document the numerical separator of the thousands is the "." (point), the decimal separator is "," (comma).**