

Safety Data Sheet

VOLTALEF® OIL S

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Document type	Name	Last data update	Version	Page
Safety data sheets	VOLTALEF® OIL S	2022-01-13	4.0	<u>3</u>
Inventories	<u>Inventory</u>	2022-01-13	2.0	<u>11</u>

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Product:

VOLTALEF® OIL S

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SDS No.: 000820-001 (Version 4.0)

Date 13.01.2022 (*Cancel and replace* : 25.05.2020)

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

Generic Safety Data Sheet

1.1. Identification of the product

Substance name: VOLTALEF® OIL S

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

Grades : VOLTALEF® 10S OIL / VOLTALEF® 1S OIL / VOLTALEF® 3S OIL /

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

Use of the Substance/Mixture : Oils and lubricants., Hydraulic fluids

1.3. Details of the supplier of the safety data sheet

Supplier	ARKEMA Fluorinated Polymers 420 rue d'Estienne d'Orves 92705 Colombes Cedex, FRANCE Telephone: +33 (0)1 49 00 80 80 Telefax: +33 (0)1 49 00 83 96 E-mail address: pars-drp-fds@arkema.com http://www.arkema.com
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1.4. Emergency telephone number

+ 33 1 49 00 77 77
European emergency phone number: 112
+44-870-8200418 (CHEMTREC United kingdom - Emergency phone number)

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008, as amended for Great Britain):

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

2.2. Label elements

Label elements (REGULATION (EC) No 1272/2008, as amended for Great Britain):

Additional information: No label necessary for this product.

2.3. 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 : Based on the available information, it is not possible to conclude on PBT and vPvB criteria according to REACH regulation, annex XIII.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Chemical name ¹	EC-No.	CAS-No.	Concentration	Classification REGULATION (EC) No 1272/2008, as amended for Great Britain
Ethylene, chlorotrifluoro, homopolymer	–	9002-83-9	100 %	

No hazardous ingredients

¹: See chapter 14 for Proper Shipping Name

SECTION 4: FIRST AID MEASURES

4.1. Description of necessary first-aid measures:

General advice:

No hazards which require special first aid measures.

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.

4.2. Most important symptoms and effects, both acute and delayed: No data available.

4.3. Indication of any immediate medical attention and special treatment needed: No data available.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

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

5.2. Special hazards arising from the substance or mixture:

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

5.3. 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.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures:

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

6.2. 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).

6.3. 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.

6.4. Reference to other sections: None.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling:

Technical measures/Precautions:

Storage and handling precautions applicable to products: Liquid, viscous
Provide appropriate exhaust ventilation at machinery. 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.

7.2. Conditions for safe storage, including any incompatibilities:

Provide a catch-tank in a bunded area.

Packaging material:

Recommended: Aluminium cans varnished inside

7.3. Specific end use(s): None.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters:

Exposure Limit Values

Not relevant

Products of decomposition:

Hydrogen chloride

Source	Date	Value type	Value (ppm)	Value (mg/m3)	Remarks
EH40 WEL	12 2011	TWA	1	2	Gas and aerosol mists.
EU ELV	12 2009	STEL	10	15	Indicative value
EU ELV	12 2009	TWA	5	8	Indicative value
EH40 WEL	12 2011		–	–	Gas and aerosol mists. Listed
EH40 WEL	01 2020	STEL	5	8	15 minutes Gas and aerosol mists.
ACGIH (US)	02 2012	Ceiling	2	–	–

Hydrogen fluoride

Source	Date	Value type	Value (ppm)	Value (mg/m3)	Remarks
EH40 WEL	12 2011	TWA	1,8	1,5	as Fluorine (F)
EU ELV	12 2009	TWA	1,8	1,5	Indicative value
EU ELV	12 2009	STEL	3	2,5	Indicative value
EH40 WEL	12 2011		–	–	Listed
EH40 WEL	12 2011		–	–	Listed
EH40 WEL	01 2020	STEL	3	2,5	15 minutes as Fluorine (F)
ACGIH (US)	02 2012	SKIN	–	–	Can be absorbed through the skin.
ACGIH (US)	02 2012	Ceiling	2	–	as Fluorine (F)
ACGIH (US)	02 2012	TWA	0,5	–	as Fluorine (F)

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.

8.2. 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

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance:

Physical state (20°C): liquid
Colour: colourless, to, yellow

Odour: odourless

Olfactory threshold: Not relevant

pH: Not applicable

Melting point/freezing point : According to grade < -55 °C
-45 °C
0 °C

Boiling point/boiling range : According to grade > 141 °C
> 256 °C
> 323 °C

Flash point: No flash point in test conditions

Evaporation rate: No data available.

Flammability (solid, gas):

Flammability: Not applicable
Lower flammable limit : Not relevant (due to its chemical structure)

Vapour pressure: According to grade
10 hPa , at 25 °C
0,03 hPa , at 25 °C
< 0,001 hPa , at 25 °C

Vapour density: No data available.

Relative density (Water=1): 1,86 at 20 °C
1,93 at 20 °C
1,96 at 20 °C

Water solubility: insoluble at 20 °C

Partition coefficient: n-octanol/water: No data available.

Auto-ignition temperature: Not relevant

Decomposition temperature: > 300 °C

Viscosity, kinematic: 5 cST , at 25 °C
60 cST , at 25 °C
800 cST , at 25 °C

Viscosity, dynamic: According to grade
9,3 mPa.s , at 25 °C
115 mPa.s , at 25 °C
1.550 mPa.s , at 25 °C

Explosive properties:

Explosivity: Not relevant (due to its chemical structure)

Oxidizing properties: Not relevant (due to its chemical structure)

9.2. Other information:

Solubility in other solvents: Soluble in: , Hydrocarbons , Chlorinated solvents , Alcohols , Ketones , Esters

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity: No data available.

10.2. Chemical stability:
The product is stable under normal handling and storage conditions.

10.3. Possibility of hazardous reactions: No data available.

10.4. Conditions to avoid:
High temperatures. Heat, flames and sparks.

10.5. Incompatible materials to avoid:
Oxidizing agents

10.6. Hazardous decomposition products:
Thermal decomposition:
Decomposition temperature: > 300 °C
Thermal decomposition into chlorinated and fluorinated toxic and corrosive products: , Hydrogen fluoride, hydrogen chloride

SECTION 11: TOXICOLOGICAL INFORMATION

All available and relevant data on this product and/or the components quoted in section 3 and/or the analogue substances/metabolites have been taken into account for the hazard assessment.

11.1. Information on toxicological effects:

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, Risk of pulmonary oedema, Severely irritating to respiratory system

HYDROGEN FLUORIDE :
At high vapour/mist concentrations, Severely irritating to respiratory system, Risk of pulmonary oedema, Delayed effects possible
• In animals :
LC50/10 min/Rat: 3,15 mg/l

Ingestion:
• In animals :
Practically not harmful if swallowed
LD0/Rat: > 5.000 mg/kg (Method: OECD Test Guideline 420)

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

Skin contact:
At high temperature, products of thermal decomposition can be irritating to skin, HF / HCl , Severely irritating, or even corrosive, to skin
• In animals :
Non irritating to skin (OECD Test Guideline 404, Rabbit)

HYDROGEN FLUORIDE :
Corrosive to skin
General failure if serious burns
Delayed effects
Secondary necrosis of tissues
• In animals :
Corrosive to skin (OECD Test Guideline 404, rabbit)
(5 %)

Eye contact:
At high temperature, products of thermal decomposition can be irritating to eyes
• In animals :
Not irritating to the eyes. (OECD Test Guideline 405, Rabbit)

Respiratory or skin sensitisation:

Inhalation: No data available.

Skin contact:

No data available.

CMR effects :

Mutagenicity:

In vitro

No data available.

In vivo

No data available.

Carcinogenicity:

No data available.

Reproductive toxicity:

No data available.

Specific target organ toxicity :

Single exposure :

Inhalation:

Inhalation of vapours due to thermal decomposition , Risk of pulmonary oedema, Possible irritation of respiratory system
At high temperature, products of thermal decomposition can be irritating to respiratory system , HF / HCl
Severely irritating to respiratory system , Risk of pulmonary oedema

HYDROGEN FLUORIDE :

Risk of irritation of respiratory system , Risk of pulmonary oedema

No data available.

Aspiration hazard:

Not applicable

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicology Assessment: All available and relevant data on this product and/or the components quoted in section 3 and/or the analogue substances/metabolites have been taken into account for the hazard assessment.

12.1. Toxicity :

Fish:

Based on the available information, it is not possible to conclude on the hazard potential of this product.

Aquatic invertebrates:

Based on the available information, it is not possible to conclude on the hazard potential of this product.

Aquatic plants:

Based on the available information, it is not possible to conclude on the hazard potential of this product.

12.2. Persistence and degradability :

Biodegradation (In water):

Based on the available information, it is not possible to conclude on the hazard potential of this product.

12.3. Bioaccumulative potential :

Bioaccumulation:

Based on the available information, it is not possible to conclude on the hazard potential of this product.

12.4. Mobility in soil - Distribution among environmental compartments:

Vapor pressure:

According to grade,
10 hPa, 25 °C
0,03 hPa, 25 °C
< 0,001 hPa, 25 °C

12.5. Results of PBT and vPvB assessment :

Based on the available information, it is not possible to conclude on PBT and vPvB criteria according to REACH regulation, annex XIII.

12.6. Other adverse effects: None known.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods:

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

SECTION 14: TRANSPORT INFORMATION

Not classified as dangerous in the meaning of transport regulations.

SECTION 15: REGULATORY INFORMATION

Safety data sheets: accordance with Annex II of Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758

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

Major Accident Hazard Legislation Not applicable

15.2. Chemical safety assessment:

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

INVENTORIES:

For the inventory details, see Appendix.

SECTION 16: OTHER INFORMATION

Update:

Safety datasheet sections which have been updated:		Type:
	General update of Safety Data Sheet.	
15	Inventories	Revisions
	REGULATION N°2020/878	Revisions

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).

Product:

VOLTALEF® OIL S

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SDS No.: 000820-001 (Version 2.0)

Date 13.01.2022 (*Cancel and replace* : 25.05.2020)

Name	Inventory	REACH (EU/EEA)	TSCA (USA)	DSL (Canada)	IECSC (China)	ENCS (Japan)	ISHL (Japan)	KECI (Korea)	PICCS (Philippines)	AIIC (Australia)	NZIOC (New Zealand)	TCSI (Taiwan)
VOLTALEF® 10S OIL		Listed or exempted (A)	(B)	(F)	Listed or exempted (D)	Listed or exempted (D)	Listed or exempted (D)	Listed or exempted (D)	Listed or exempted (D)	Listed or exempted (D)	(K)	Listed or exempted (D)
VOLTALEF® 1S OIL		Listed or exempted (A)	(B)	(F)	Listed or exempted (D)	Listed or exempted (D)	Listed or exempted (D)	Listed or exempted (D)	Listed or exempted (D)	Listed or exempted (D)	(K)	Listed or exempted (D)
VOLTALEF® 3S OIL		Listed or exempted (A)	(B)	(F)	Listed or exempted (D)	Listed or exempted (D)	Listed or exempted (D)	Listed or exempted (D)	Listed or exempted (D)	Listed or exempted (D)	(K)	Listed or exempted (D)

(A) In the event of purchase from an Arkema legal entity based in the European Economic Area (EEA), it is established that this product complies with the registration provisions of REACH Regulation (EC) No. 1907/2006, given that all of its components are excluded, exempted and / or registered. If purchasing from a legal entity established outside the EEA, please contact your local representative for more information.	(B) The components of this product are all on the TSCA Inventory
(C) This product contains one or several components that are not on the TSCA inventory	(D) All components of this product are listed or exempted
(E) Not all components of this product are listed or exempted	(F) All components of this product are on the Canadian DSL
(G) This product contains one or several components listed in the Canadian NDSL list. All other components are on the DSL list.	(H) This product contains one or several components that are not on the Canadian DSL nor NDSL lists.
(I) This product contains at least one component covered by an exemption available only for our company - Please consult us for more information	(J) This product contains at least one component covered by a polymer exemption available only for our company - Please consult us for more information
(K) or (N) Consult ARKEMA	(M) The mixture contains a polymer. All the monomers for this polymer & other substances are listed on the inventory - Please consult us for more information.
(O) Based on alternate CAS number(s).	(P) The TSCA Inventory status of the product has not been evaluated.
<i>In case of empty inventory, Consult ARKEMA</i>	
ARKEMA	420 rue d'Estienne d'Orves - 92705 - Colombes - FRANCE

