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

1.1 Product identifier
Trade name : Vertrel™ SDG specialty fluid
SDS-Identcode : 130000033958

1.2 Relevant identified uses of the substance or mixture and uses advised against
Use of the Substance/Mixture : Cleaning agent
Recommended restrictions on use : For professional and industrial installation and use only.

1.3 Details of the supplier of the safety data sheet
Company : Chemours Netherlands B.V.
Baanhoekweg 22
3313 LA Dordrecht Netherlands

Telephone : +31-(0)-78-630-1011
Telefax : +31-78-6163737
E-mail address of person responsible for the SDS : sds-support@chemours.com

1.4 Emergency telephone number
+(44)-870-8200418 (CHEMTREC - Recommended)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
Classification (REGULATION (EC) No 1272/2008)
Acute toxicity, Category 4 : H332: Harmful if inhaled.
Eye irritation, Category 2 : H319: Causes serious eye irritation.
Specific target organ toxicity - single exposure, Category 3 : H336: May cause drowsiness or dizziness.
Long-term (chronic) aquatic hazard, Category 3 : H412: Harmful to aquatic life with long lasting effects.

2.2 Label elements
Labelling (REGULATION (EC) No 1272/2008)
Hazard pictograms : ![Hazard Pictogram]

Signal word : Warning

Hazard statements : H319 Causes serious eye irritation.
                   H332 Harmful if inhaled.
                   H336 May cause drowsiness or dizziness.
                   H412 Harmful to aquatic life with long lasting effects.

Supplemental Hazard Statements : EUH018 In use may form flammable/explosive vapour-air mixture.

Precautionary statements : Prevention:
                          P264 Wash skin thoroughly after handling.
                          P271 Use only outdoors or in a well-ventilated area.
                          P273 Avoid release to the environment.
                          P280 Wear eye protection/ face protection.

Response: IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.
          P304 + P340 + P312 If eye irritation persists: Get medical advice/ attention.

Hazardous components which must be listed on the label:
trans-Dichloroethylene

Additional Labelling
Contains fluorinated greenhouse gases. (HFC-43-10 mee)

EUH209 Can become highly flammable in use.

2.3 Other hazards
Vapours are heavier than air and can cause suffocation by reducing oxygen available for breathing.
Misuse or intentional inhalation abuse may cause death without warning symptoms, due to cardiac effects.
Rapid evaporation of the product may cause frostbite.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>EC-No.</th>
<th>Index-No.</th>
<th>Registration number</th>
<th>Classification</th>
<th>Concentration (% w/w)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical name</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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SECTION 4: First aid measures

4.1 Description of first aid measures

General advice: In the case of accident or if you feel unwell, seek medical advice immediately. When symptoms persist or in all cases of doubt seek medical advice.

Protection of first-aiders: First Aid responders should pay attention to self-protection, and use the recommended personal protective equipment when the potential for exposure exists.

If inhaled: If inhaled, remove to fresh air. Get medical attention if symptoms occur.

In case of skin contact: In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.

In case of eye contact: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lens, if worn. Get medical attention.

If swallowed: If swallowed, DO NOT induce vomiting. Get medical attention if symptoms occur. Rinse mouth thoroughly with water.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms: May cause cardiac arrhythmia.

Skin contact may provoke the following symptoms: Dermatitis
Vertrel™ SDG specialty fluid

Irritation
Pain
superficial burning sensation
Itching
Redness
Swelling of tissue
Rash
Discomfort

Eye contact may provoke the following symptoms
Irritation
tearing
Discomfort
Redness

Effects of breathing high concentrations of vapour may include:
Tiredness
Drowsiness
central nervous system effects
Convulsions
Dizziness
confusion

Adverse effects from repeated inhalation may include central nervous system effects
Aspiration may cause pulmonary oedema and pneumonitis.

Risks: Causes serious eye irritation.
Harmful if inhaled.
May cause drowsiness or dizziness.

4.3 Indication of any immediate medical attention and special treatment needed
Treatment: Treat symptomatically and supportively.

SECTION 5: Firefighting measures

5.1 Extinguishing media
Suitable extinguishing media: Water spray
Alcohol-resistant foam
Carbon dioxide (CO2)
Dry chemical

Unsuitable extinguishing media: None known.

5.2 Special hazards arising from the substance or mixture
Specific hazards during firefighting: Vapours may form explosive mixtures with air.
Exposure to combustion products may be a hazard to health.
5.3 Advice for firefighters

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.
Specific extinguishing methods : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Use water spray to cool unopened containers. Remove undamaged containers from fire area if it is safe to do so. Evacuate area.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Use personal protective equipment. Follow safe handling advice and personal protective equipment recommendations.

6.2 Environmental precautions

Environmental precautions : Discharge into the environment must be avoided. Prevent further leakage or spillage if safe to do so. Prevent spreading over a wide area (e.g. by containment or oil barriers). Retain and dispose of contaminated wash water. Local authorities should be advised if significant spillages cannot be contained.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Soak up with inert absorbent material. For large spills, provide dyking or other appropriate containment to keep material from spreading. If dyked material can be pumped, store recovered material in appropriate container. Clean up remaining materials from spill with suitable absorbent. Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable. Sections 13 and 15 of this SDS provide information regarding certain local or national requirements.

6.4 Reference to other sections

See sections: 7, 8, 11, 12 and 13.
7.1 Precautions for safe handling

Technical measures : See Engineering measures under EXPOSURE CONTROLS/PERSO NAL PROTECTION section.

Local/Total ventilation : Use with local exhaust ventilation. Use only in an area equipped with explosion-proof exhaust ventilation if advised by assessment of the local exposure potential.

Advice on safe handling : Do not get on skin or clothing. Do not breathe vapours or spray mist. Do not swallow. Do not get in eyes. Handle in accordance with good industrial hygiene and safety practice, based on the results of the workplace exposure assessment. Keep away from heat and sources of ignition. Take precautionary measures against static discharges. Take care to prevent spills, waste and minimize release to the environment.

Hygiene measures : Ensure that eye flushing systems and safety showers are located close to the working place. When using do not eat, drink or smoke. Wash contaminated clothing before re-use.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Do not expose drums to direct heat or temperature above 46°C (115°F) to avoid pressurizing and possibly distorting the drums. Material should not be dispensed by pouring from pail/drum shipping containers containing 5 gallons or more. The use of a drum pump is recommended for dispensing from pail/drum shipping containers with 5 gallons or more, except for smaller containers where adequate ventilation can be used to manage the exposure. Keep in properly labelled containers. Store locked up. Keep in a cool, well-ventilated place. Store in accordance with the particular national regulations.

Advice on common storage : No special restrictions on storage with other products.

Storage period : > 10 yr

Recommended storage temperature : < 46 °C

Further information on storage stability : The product has an indefinite shelf life when stored properly.

7.3 Specific end use(s)

Specific use(s) : No data available
SECTION 8: Exposure controls/personal protection

8.1 Control parameters
Contains no substances with occupational exposure limit values.

**Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:**

<table>
<thead>
<tr>
<th>Substance name</th>
<th>End Use</th>
<th>Exposure routes</th>
<th>Potential health effects</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>trans-Dichloroethylene</td>
<td>Workers</td>
<td>Inhalation</td>
<td>Long-term systemic effects</td>
<td>797 mg/m³</td>
</tr>
<tr>
<td></td>
<td>Consumers</td>
<td>Inhalation</td>
<td>Long-term systemic effects</td>
<td>198 mg/m³</td>
</tr>
<tr>
<td></td>
<td>Consumers</td>
<td>Ingestion</td>
<td>Long-term systemic effects</td>
<td>57 mg/kg bw/day</td>
</tr>
</tbody>
</table>

**Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:**

<table>
<thead>
<tr>
<th>Substance name</th>
<th>Environmental Compartment</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>trans-Dichloroethylene</td>
<td>Fresh water</td>
<td>0.0364 mg/l</td>
</tr>
<tr>
<td></td>
<td>Marine water</td>
<td>0.0036 mg/l</td>
</tr>
<tr>
<td></td>
<td>Intermittent use/release</td>
<td>0.3636 mg/l</td>
</tr>
<tr>
<td></td>
<td>Fresh water sediment</td>
<td>0.5483 mg/kg dry weight (d.w.)</td>
</tr>
<tr>
<td></td>
<td>Marine sediment</td>
<td>0.0548 mg/kg dry weight (d.w.)</td>
</tr>
<tr>
<td></td>
<td>Sewage treatment plant</td>
<td>17 mg/l</td>
</tr>
<tr>
<td></td>
<td>Soil</td>
<td>0.0563 mg/kg dry weight (d.w.)</td>
</tr>
</tbody>
</table>

8.2 Exposure controls

**Engineering measures**
Minimize workplace exposure concentrations.
Use only in an area equipped with explosion-proof exhaust ventilation if advised by assessment of the local exposure potential.
Use with local exhaust ventilation.

**Personal protective equipment**

- **Eye protection**: Wear the following personal protective equipment:
  - Safety goggles
  - Equipment should conform to BS EN 166

- **Hand protection**
  - **Material**: Viton (R)
  - **Glove thickness**: 0.7 mm
  - **Wearing time**: 120 min

- **Remarks**: Choose gloves to protect hands against chemicals depending on the concentration and quantity of the hazardous substance and specific to place of work. For special applications, we recommend clarifying the resistance to chemicals of the
aforementioned protective gloves with the glove manufacturer. Wash hands before breaks and at the end of workday. Breakthrough time is not determined for the product. Change gloves often!

**Skin and body protection:**
Wear the following personal protective equipment:
Flame retardant antistatic protective clothing, unless assessment demonstrates that the risk of explosive atmospheres or flash fires is low.

**Respiratory protection:**
Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines.

**Filter type:**
Organic gas and low boiling vapour type (AX)

### SECTION 9: Physical and chemical properties

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

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Appearance</strong></td>
<td>liquid</td>
</tr>
<tr>
<td><strong>Colour</strong></td>
<td>clear, colourless</td>
</tr>
<tr>
<td><strong>Odour</strong></td>
<td>slight, ether-like</td>
</tr>
<tr>
<td><strong>Odour Threshold</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>pH</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Melting point/freezing point</strong></td>
<td>&lt; -50 °C</td>
</tr>
<tr>
<td><strong>Initial boiling point and boiling range</strong></td>
<td>43 °C</td>
</tr>
<tr>
<td><strong>Flash point</strong></td>
<td>Method: Pensky-Martens closed cup does not flash</td>
</tr>
<tr>
<td><strong>Evaporation rate</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Flammability (solid, gas)</strong></td>
<td>Not applicable</td>
</tr>
<tr>
<td><strong>Upper explosion limit / Upper flammability limit</strong></td>
<td>Upper flammability limit 14 % (V) Method: ASTM E681</td>
</tr>
<tr>
<td><strong>Lower explosion limit / Lower flammability limit</strong></td>
<td>Lower flammability limit 7 % (V) Method: ASTM E681</td>
</tr>
<tr>
<td><strong>Vapour pressure</strong></td>
<td>517 hPa (25 °C)</td>
</tr>
<tr>
<td><strong>Relative vapour density</strong></td>
<td>2.1</td>
</tr>
</tbody>
</table>
Vertrel™ SDG specialty fluid

Density : 1.29 g/cm³ (25 °C)

Solubility(ies)
Water solubility : No data available

Partition coefficient: n-octanol/water : Not applicable

Auto-ignition temperature : No data available

Decomposition temperature : No data available

Viscosity
Viscosity, dynamic : 0.59 mPa.s (25 °C)
Viscosity, kinematic : No data available

Explosive properties : In use may form flammable/explosive vapour-air mixture.

Oxidizing properties : The substance or mixture is not classified as oxidizing.

9.2 Other information
Flammability (liquids) : No data available

Particle size : Not applicable

SECTION 10: Stability and reactivity

10.1 Reactivity
Not classified as a reactivity hazard.

10.2 Chemical stability
Stable under normal conditions.

10.3 Possibility of hazardous reactions
Hazardous reactions : Vapours may form flammable mixture with air
In use may form flammable/explosive vapour-air mixture.

10.4 Conditions to avoid
Conditions to avoid : None known.

10.5 Incompatible materials
Materials to avoid : None.

10.6 Hazardous decomposition products
No hazardous decomposition products are known.
SECTION 11: Toxicological information

11.1 Information on toxicological effects

Information on likely routes of exposure:
- Inhalation
- Skin contact
- Ingestion
- Eye contact

**Acute toxicity**
Harmful if inhaled.

**Product:**
Acute inhalation toxicity:
- Acute toxicity estimate: 13.25 mg/l
- Exposure time: 4 h
- Test atmosphere: vapour
- Method: Calculation method

**Components:**

**trans-Dichloroethylene:**
- Acute oral toxicity: LD50 (Rat): 7,902 mg/kg
- Acute inhalation toxicity:
  - Acute toxicity estimate (Not tested on animals): 11 mg/l
  - Exposure time: 4 h
  - Test atmosphere: vapour
  - Method: Expert judgement
  - Lowest observed adverse effect concentration (Dog): 250000 ppm
  - Cardiac sensitisation threshold limit (Dog): 991,309 mg/m3
- Acute dermal toxicity: LD50 (Rabbit): > 5,000 mg/kg

Reaction mass of (3R,4R)-1,1,2,2,3,4,5,5-decafluoropentane and (3S,4S)- 1,1,2,2,3,4,5,5-decafluoropentane:
- Acute oral toxicity: LD50 (Rat): > 5,000 mg/kg
- Acute inhalation toxicity:
  - LC50 (Rat): 114 mg/l
  - Exposure time: 4 h
  - Test atmosphere: vapour
- Acute dermal toxicity: LD50 (Rabbit): > 5,000 mg/kg

**1,1,2,2,3,3,4-Heptafluorocyclopentane:**
- Acute oral toxicity: LD50 (Rat): > 2,000 mg/kg
Skin corrosion/irritation
Not classified based on available information.

Components:

trans-Dichloroethylene:
Species : Rabbit  
Result : Mild skin irritation

Reaction mass of (3R,4R)-1,1,1,2,2,3,4,5,5,5-decafluoropentane and (3S,4S)- 1,1,1,2,2,3,4,5,5,5-decafluoropentane
Species : Rabbit  
Result : No skin irritation

1,1,2,2,3,3,4-Heptafluorocyclopentane:
Species : Rabbit  
Result : No skin irritation

Serious eye damage/eye irritation
Causes serious eye irritation.

Components:

trans-Dichloroethylene:
Species : Rabbit  
Result : Irritation to eyes, reversing within 21 days

Reaction mass of (3R,4R)-1,1,1,2,2,3,4,5,5,5-decafluoropentane and (3S,4S)- 1,1,1,2,2,3,4,5,5,5-decafluoropentane
Species : Rabbit  
Result : No eye irritation

1,1,2,2,3,3,4-Heptafluorocyclopentane:
Species : Rabbit  
Result : No eye irritation

Respiratory or skin sensitisation

Skin sensitisation
Not classified based on available information.

Respiratory sensitisation
Not classified based on available information.
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according to Regulation (EC) No. 1907/2006

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Components:
Reaction mass of (3R,4R)-1,1,1,2,2,3,4,5,5,5-decafluoropentane and (3S,4S)-1,1,1,2,2,3,4,5,5,5-decafluoropentane

Exposure routes: Skin contact
Species: Guinea pig
Result: negative

1,1,2,2,3,3,4-Heptafluorocyclopentane:
Test Type: Maximisation Test
Exposure routes: Skin contact
Species: Guinea pig
Result: negative

Germ cell mutagenicity
Not classified based on available information.

Components:
trans-Dichloroethylene:
Germ cell mutagenicity: Weight of evidence does not support classification as a germ cell mutagen.

Reaction mass of (3R,4R)-1,1,1,2,2,3,4,5,5,5-decafluoropentane and (3S,4S)-1,1,1,2,2,3,4,5,5,5-decafluoropentane

Germ cell mutagenicity: Weight of evidence does not support classification as a germ cell mutagen.

1,1,2,2,3,3,4-Heptafluorocyclopentane:
Genotoxicity in vitro: Test Type: Bacterial reverse mutation assay (AMES)
Result: negative

Carcinogenicity
Not classified based on available information.

Reproductive toxicity
Not classified based on available information.

Components:
Reaction mass of (3R,4R)-1,1,1,2,2,3,4,5,5,5-decafluoropentane and (3S,4S)-1,1,1,2,2,3,4,5,5,5-decafluoropentane

Reproductive toxicity: Weight of evidence does not support classification for reproductive toxicity
STOT - single exposure
May cause drowsiness or dizziness.

Components:

trans-Dichloroethylene:
Assessment : May cause drowsiness or dizziness.

STOT - repeated exposure
Not classified based on available information.

Components:

trans-Dichloroethylene:
Assessment : No significant health effects observed in animals at concentrations of 250 ppmV/6h/d or less.

Reaction mass of (3R,4R)-1,1,1,2,2,3,4,5,5,5-decafluoropentane and (3S,4S)-1,1,1,2,2,3,4,5,5,5-decafluoropentane
Assessment : No significant health effects observed in animals at concentrations of 1 mg/l/6h/d or less.

Repeated dose toxicity

Components:

trans-Dichloroethylene:
Species : Rat
NOAEL : 4000 ppm
LOAEL : > 4000 ppm
Application Route : inhalation (gas)
Exposure time : 90 d
Method : OECD Test Guideline 413
Remarks : No significant adverse effects were reported

Species : Rat
NOAEL : 3,000 mg/kg
LOAEL : > 3,000 mg/kg
Application Route : Ingestion
Exposure time : 90 d
Remarks : No significant adverse effects were reported

Reaction mass of (3R,4R)-1,1,1,2,2,3,4,5,5,5-decafluoropentane and (3S,4S)-1,1,1,2,2,3,4,5,5,5-decafluoropentane
Species : Rat
NOAEL : 15.463 mg/l
LOAEL : 3.6081 mg/l
Application Route : inhalation (vapour)
Exposure time : 90 d
Vertrel™ SDG specialty fluid

Method:
OECD Test Guideline 413

Remarks:
No significant adverse effects were reported

Aspiration toxicity
Not classified based on available information.

SECTION 12: Ecological information

12.1 Toxicity

Components:

trans-Dichloroethylene:
Toxicity to fish:
LC50 (Lepomis macrochirus (Bluegill sunfish)): 135 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates:
EC50 (Daphnia magna (Water flea)): 220 mg/l
Exposure time: 48 h

Toxicity to algae/aquatic plants:
EC50 (Pseudokirchneriella subcapitata (green algae)): 36.36 mg/l
Exposure time: 72 h

Reaction mass of (3R,4R)-1,1,1,2,2,3,4,5,5,5-decafluoropentane and (3S,4S)-1,1,1,2,2,3,4,5,5,5-decafluoropentane:
LC50 (Oncorhynchus mykiss (rainbow trout)): 13.9 mg/l
Exposure time: 96 h
LC50 (Pimephales promelas (fathead minnow)): 27.2 mg/l
Exposure time: 96 h
LC50 (Danio rerio (zebra fish)): 13 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates:
LC50 (Daphnia magna (Water flea)): 11.7 mg/l
Exposure time: 48 h

Toxicity to algae/aquatic plants:
EC50 (Pseudokirchneriella subcapitata (green algae)): > 120 mg/l
Exposure time: 72 h

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity):
NOEC: 1.72 mg/l
Exposure time: 21 d
Species: Daphnia magna (Water flea)

1,1,2,2,3,3,4-Heptafluorocyclopentane:
Toxicity to daphnia and other aquatic invertebrates:
EC50 (Daphnia magna (Water flea)): 66.3 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202
Toxicity to algae/aquatic plants: ErC50 (Pseudokirchneriella subcapitata (green algae)): > 3.75 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

12.2 Persistence and degradability

Components:

trans-Dichloroethylene:
Biodegradability: Result: Not readily biodegradable.
Method: OECD Test Guideline 301D

Reaction mass of (3R,4R)-1,1,2,2,3,4,5,5,5-decafluoropentane and (3S,4S)-1,1,1,2,2,3,4,5,5,5-decafluoropentane:
Biodegradability: Result: Not readily biodegradable.

1,1,2,2,3,3,4-Heptafluorocyclopentane:
Biodegradability: Result: Not readily biodegradable.
Biodegradation: 0 %
Exposure time: 28 d
Method: OECD Test Guideline 301C

12.3 Bioaccumulative potential

Components:

trans-Dichloroethylene:
Partition coefficient: n-octanol/water: log Pow: 2.06

Reaction mass of (3R,4R)-1,1,1,2,2,3,4,5,5,5-decafluoropentane and (3S,4S)-1,1,1,2,2,3,4,5,5,5-decafluoropentane:
Bioaccumulation: Remarks: Bioaccumulation is unlikely.

1,1,2,2,3,3,4-Heptafluorocyclopentane:
Partition coefficient: n-octanol/water: log Pow: 2.4

12.4 Mobility in soil
No data available

12.5 Results of PBT and vPvB assessment
Not relevant
12.6 Other adverse effects

Global warming potential

Regulation (EU) No 517/2014 on fluorinated greenhouse gases

Product:
100-year global warming potential: 164

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product:
Dispose of in accordance with local regulations. According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities.

Contaminated packaging:
Empty containers should be taken to an approved waste handling site for recycling or disposal. If not otherwise specified: Dispose of as unused product.

SECTION 14: Transport information

14.1 UN number
Not regulated as a dangerous good

14.2 UN proper shipping name
Not regulated as a dangerous good

14.3 Transport hazard class(es)
Not regulated as a dangerous good

14.4 Packing group
Not regulated as a dangerous good

14.5 Environmental hazards
Not regulated as a dangerous good

14.6 Special precautions for user
Not applicable

14.7 Transport in bulk according to IMO instruments
Remarks:
Not applicable for product as supplied.

SECTION 15: Regulatory information

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

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59):
Not applicable

REACH - List of substances subject to authorisation:
Not applicable
SAFETY DATA SHEET
according to Regulation (EC) No. 1907/2006

Vertrel™ SDG specialty fluid

Version 10.1  Revision Date: 08.04.2019  SDS Number: 1333449-00036  Date of last issue: 22.08.2018
Date of first issue: 27.02.2017

(Annex XIV)

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer : Not applicable
Regulation (EC) No 850/2004 on persistent organic pollutants : Not applicable
Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals : Not applicable

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII) : Conditions of restriction for the following entries should be considered: Number on list 3

Not applicable

15.2 Chemical safety assessment
A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

Other information : Vertrel™ and any associated logos are trademarks or copyrights of The Chemours Company FC, LLC.
Chemours™ and the Chemours Logo are trademarks of The Chemours Company.
Before use read Chemours safety information.
For further information contact the local Chemours office or nominated distributors.

Items where changes have been made to the previous version are highlighted in the body of this document by two vertical lines.

Full text of H-Statements

H225 : Highly flammable liquid and vapour.
H319 : Causes serious eye irritation.
H332 : Harmful if inhaled.
H336 : May cause drowsiness or dizziness.
H412 : Harmful to aquatic life with long lasting effects.

Full text of other abbreviations

Acute Tox. : Acute toxicity
Aquatic Chronic : Long-term (chronic) aquatic hazard
Eye Irrit. : Eye irritation
Flam. Liq. : Flammable liquids
STOT SE : Specific target organ toxicity - single exposure
SAFETY DATA SHEET
according to Regulation (EC) No. 1907/2006

Vertrel™ SDG specialty fluid

Version: 10.1
Revision Date: 08.04.2019
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ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways;
ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road;
AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials;
bw - Body weight; CLP - Classification Labelling Packaging Regulation;
CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation;
DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number;
ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule;
ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response;
GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer;
IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration;
ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China;
IDMG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan);
ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration
to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose);
MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified;
NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level;
NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development;
OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance;
PIECS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship;
REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration,
Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Road;
SDADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern;
TCSI - Taiwan Chemical Substance Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States);
UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Further information


Classification of the mixture:

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<th>Classification</th>
<th>Classification procedure</th>
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<td>Acute Tox. 4</td>
<td>H332 Calculation method</td>
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<td>Eye Irrit. 2</td>
<td>H319 Calculation method</td>
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<td>STOT SE 3</td>
<td>H336 Calculation method</td>
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<tr>
<td>Aquatic Chronic 3</td>
<td>H412 Calculation method</td>
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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. The information is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and shall not be considered a warranty or quality specification of any type. The information provided relates only to the specific material identified at the top of this SDS and may not be valid when the SDS material is used in combination with any other materials or in any process, unless specified in the text. Material users should review the information and recommendations in the specific context of their use.
Vertrel™ SDG specialty fluid

intended manner of handling, use, processing and storage, including an assessment of the appropriateness of the SDS material in the user’s end product, if applicable.

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