

# CFS-SP SIL

## Safety Data Sheet

According to SS 586 Part 3 (2022)  
Issue date: 12.02.2025

Revision date: 12.02.2025

Supersedes: 23.12.2021

Version: 5.0

### SECTION 1: Identification

#### 1.1. Product identifier

Name CFS-SP SIL  
Product code BU Fire Protection

#### 1.2. Other means of identification

No additional information available

#### 1.3. Recommended use of the chemical and restrictions on use

No additional information available

#### 1.4. Supplier's details

##### Supplier

Hilti Far East Private Ltd.  
80 Pasir Panjang Road, #16-83/84 Mapletree Business City Singapore  
Singapur 117372  
T +65 6777 7887 - F +65 6777 3057  
[sg-customerservice@hilti.com](mailto:sg-customerservice@hilti.com)

##### Department issuing data specification sheet

Hilti AG  
Feldkircherstraße 100 Schaan Liechtenstein 9494  
T +423 234 2111  
[product.compliance-fire.protection@hilti.com](mailto:product.compliance-fire.protection@hilti.com)

#### 1.5. Emergency phone number

Emergency number GBK GmbH Global Regulatory Compliance  
+49 (0)6132-84463

### SECTION 2: Hazard identification

#### 2.1. Classification of the substance or mixture

Health hazards Skin sensitisation, Category 1  
Carcinogenicity, Category 1B

#### 2.2. GHS label elements, including precautionary statements

##### Hazard pictograms (GHS SG)



##### Signal word (GHS SG)

Danger

##### Hazard statements (GHS SG)

H317 : May cause an allergic skin reaction  
H350 : May cause cancer

##### Precautionary statements

##### Prevention

P261 : Avoid breathing mist, vapours.  
P280 : Wear eye protection, protective clothing, protective gloves.

##### Response

P302+P352 : IF ON SKIN: Wash with plenty of water.  
P308+P313 : IF exposed or concerned: Get medical advice/attention.  
P333+P313 : If skin irritation or rash occurs: Get medical advice/attention.

#### 2.3. Other hazards which do not result in classification

No additional information available

### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Not applicable

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### 3.2. Mixtures

Name	Concentration (%)	Formula	Product identifier
butan-2-one O,O',O''-(methylsilyldiylidene)trioxime	1 – 2.5	C13H27N3O3Si	CAS-No.: 22984-54-9 EC-No.: 245-366-4
Vinyltris(methylethylketoxime)silane	0.1 – 1	C14H27N3O3Si	CAS-No.: 2224-33-1 EC-No.: 218-747-8
2-butanone oxime; ethyl methyl ketoxime; ethyl methyl ketone oxime	0.1 – 1	C4H9NO	CAS-No.: 96-29-7 EC-No.: 202-496-6 EC Index-No.: 616-014-00-0

## SECTION 4: First-aid measures

### 4.1. Description of necessary first aid measures

First-aid measures general	Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
Inhalation	Remove person to fresh air and keep comfortable for breathing. Allow affected person to breathe fresh air. Allow the victim to rest.
Skin contact	Wash skin with plenty of water. If skin irritation or rash occurs: Get medical advice/attention. Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Take off contaminated clothing. Wash contaminated clothing before reuse.
Eye contact	Rinse eyes with water as a precaution. Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persists.
Ingestion	Call a poison center or a doctor if you feel unwell. Rinse mouth. Do NOT induce vomiting.

### 4.2. Most important symptoms/effects, acute and delayed

Symptoms/effects after inhalation	May cause an allergic skin reaction.
Symptoms/effects after skin contact	May cause an allergic skin reaction.

### 4.3. Indication of immediate medical attention and special treatment needed, if necessary

Other medical advice or treatment	Treat symptomatically.
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## SECTION 5: Fire-fighting measures

### 5.1. Suitable extinguishing media

Suitable extinguishing media	Foam. Dry powder. Carbon dioxide. Water spray. Sand.
Unsuitable extinguishing media	Do not use a heavy water stream.

### 5.2. Specific hazards arising from the chemical

No additional information available

### 5.3. Special protective actions for fire fighters

Firefighting instructions	Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment.
Protection during firefighting	Do not enter fire area without proper protective equipment, including respiratory protection. Self-contained breathing apparatus. Complete protective clothing.

## SECTION 6: Accidental release measures

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

No additional information available



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Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment. In order to avoid inhalation of mist/vapour, all spraying must be done wearing adequate respirator. Wear appropriate mask

Device	Filter type	Condition	Standard
	Type A - High-boiling (>65 °C) organic compounds		

### Personal protective equipment symbol(s)



Environmental exposure controls

Avoid release to the environment.

## SECTION 9: Physical and chemical properties

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

Physical state	Liquid
Appearance	Pasty.
Colour	white
Odour	characteristic
Odour threshold	No data available
pH	Not applicable.
Relative evaporation rate (butylacetate=1)	No data available
Evaporation rate	No data available
Melting point	Not applicable
Freezing point	No data available
Boiling point	> 35 °C
Flash point	> 93 °C Not applicable.
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Flammability	≈ 435 °C Not applicable, Non flammable.
Vapour pressure	No data available
Relative vapour density at 20°C	No data available
Relative density	No data available
Density	1.3 g/cm <sup>3</sup>
Solubility	insoluble in water.
Partition coefficient n-octanol/water (Log Pow)	No data available
Partition coefficient n-octanol/water (Log Kow)	No data available
Viscosity, dynamic	No data available
Explosive properties	Product is not explosive.
Oxidising properties	No data available
Explosive limits	No data available
Particle size	No data available
Particle size distribution	No data available
Particle shape	No data available
Particle aspect ratio	No data available
Particle specific surface area	No data available

### 9.2. Other information

No additional information available

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### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

#### 10.2. Chemical stability

Stable under normal conditions. Not established.

#### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use. Not established.

#### 10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7). Direct sunlight. Extremely high or low temperatures.

#### 10.5. Incompatible materials

Strong acids. Strong bases.

#### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. fume. Carbon monoxide. Carbon dioxide.

### SECTION 11: Toxicological information

#### 11.1. Acute toxicity

Acute toxicity (oral)	Not classified
Acute toxicity (dermal)	Not classified
Acute toxicity (inhalation)	Not classified

Vinyltris(methylethylketoxime)silane (2224-33-1)	
LD50 oral rat	> 2000 mg/kg bodyweight (OECD 425: Acute Oral Toxicity: Up-and-Down Procedure, Rat, Male, Experimental value, Oral, 14 day(s))
LD50 dermal rat	> 2009 mg/kg bodyweight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, Dermal, 14 day(s))

butan-2-one O,O',O''-(methylsilylidyne)trioxime (22984-54-9)	
LD50 oral rat	2463 mg/kg bodyweight (OECD 401: Acute Oral Toxicity, Rat, Male / female, Experimental value, Oral, 14 day(s))
LD50 dermal rat	> 2000 mg/kg bodyweight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, Dermal, 14 day(s))

2-butanone oxime; ethyl methyl ketoxime; ethyl methyl ketone oxime (96-29-7)	
LD50 oral rat	2326 mg/kg bodyweight (Equivalent or similar to OECD 401, Rat, Male, Experimental value, Oral)
LD50 oral	930 mg/kg
LD50 dermal rabbit	> 1000 mg/kg bodyweight (Equivalent or similar to OECD 402, 24 h, Rabbit, Male / female, Experimental value, Dermal, 14 day(s))
LD50 dermal	> 1000 mg/kg
LC50 Inhalation - Rat	> 4.83 mg/l air (Equivalent or similar to OECD 403, 4 h, Rat, Male / female, Experimental value, Inhalation (vapours), 14 day(s))
LC50 Inhalation - Rat (Dust/Mist)	20 mg/l/4h

Skin corrosion/irritation	Not classified pH: Not applicable.
Serious eye damage/irritation	Not classified
Respiratory or skin sensitisation	May cause an allergic skin reaction.
Germ cell mutagenicity	Not classified
Carcinogenicity	May cause cancer.
Reproductive toxicity	Not classified

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STOT-single exposure Not classified

### 2-butanone oxime; ethyl methyl ketoxime; ethyl methyl ketone oxime (96-29-7)

STOT-single exposure Causes damage to organs. May cause drowsiness or dizziness.

STOT-repeated exposure Not classified

### Vinyltris(methylethylketoxime)silane (2224-33-1)

STOT-repeated exposure May cause damage to organs through prolonged or repeated exposure.

### 2-butanone oxime; ethyl methyl ketoxime; ethyl methyl ketone oxime (96-29-7)

STOT-repeated exposure May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard Not classified

### CFS-SP SIL

Density 1.3 g/cm<sup>3</sup>

Potential adverse human health effects and symptoms Based on available data, the classification criteria are not met.

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.

Hazardous to the aquatic environment, short-term (acute) Not classified

Hazardous to the aquatic environment, long-term (chronic) Not classified

Other information Avoid release to the environment.

### Vinyltris(methylethylketoxime)silane (2224-33-1)

LC50 - Fish [1] 1011.11 mg/l (96 h, Pisces, Fresh water, Read-across)

EC50 - Crustacea [1] 241.08 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia sp., Fresh water, Read-across)

EC50 72h - Algae [1] 19.19 mg/l (Algae, Fresh water, Read-across, Growth rate)

BCF - Other aquatic organisms [1] 364.8 l/kg (BCFBAF v3.01, Estimated value, Fresh weight)

Partition coefficient n-octanol/water (Log Pow) 10.19 (Estimated value, KOWWIN)

Organic Carbon Normalized Adsorption Coefficient (Log Koc) 5.773 (log Koc, SRC PCKOCWIN v2.0, Calculated value)

### butan-2-one O,O',O''-(methylsilyldiyl)trioxime (22984-54-9)

LC50 - Fish [1] ≈ 972.34 mg/l (Pimephales promelas) (freshwater, stat., anal. OECD 203, read-across)

EC50 - Crustacea [1] 231.84 mg/l (Daphnia magna) (freshwater, stat., OECD 202, read-across)

BCF - Fish [1] 0.5 – 5.8 (6 week(s), Cyprinus carpio, Flow-through system, Experimental value)

Partition coefficient n-octanol/water (Log Pow) 0.36 (Experimental value)

Organic Carbon Normalized Adsorption Coefficient (Log Koc) 5.481 (log Koc, SRC PCKOCWIN v2.0, Calculated value)

### 2-butanone oxime; ethyl methyl ketoxime; ethyl methyl ketone oxime (96-29-7)

LC50 - Fish [1] > 100 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Oryzias latipes, Semi-static system, Fresh water, Experimental value, Nominal concentration)

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<b>2-butanone oxime; ethyl methyl ketoxime; ethyl methyl ketone oxime (96-29-7)</b>	
EC50 - Crustacea [1]	201 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect)
ErC50 algae	11.8 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Selenastrum capricornutum, Static system, Fresh water, Experimental value, Nominal concentration)
BCF - Fish [1]	0.5 – 5.8 (OECD 305: Bioconcentration: Flow-Through Fish Test, 42 day(s), Cyprinus carpio, Fresh water, Experimental value, GLP)
Partition coefficient n-octanol/water (Log Pow)	0.63 (Experimental value, Equivalent or similar to OECD 117)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	0.55 (log Koc, SRC PCKOCWIN v2.0, QSAR)

### 12.2. Persistence and degradability

<b>CFS-SP SIL</b>	
Persistence and degradability	Not established.
<b>Vinyltris(methylethylketoxime)silane (2224-33-1)</b>	
Not rapidly degradable	
Persistence and degradability	Not readily biodegradable in water.
<b>butan-2-one O,O',O''-(methylsilylidyne)trioxime (22984-54-9)</b>	
Not rapidly degradable	
Persistence and degradability	Not readily biodegradable in water.
<b>2-butanone oxime; ethyl methyl ketoxime; ethyl methyl ketone oxime (96-29-7)</b>	
Not rapidly degradable	
Persistence and degradability	Not readily biodegradable in water. Inherently biodegradable.

### 12.3. Bioaccumulative potential

<b>CFS-SP SIL</b>	
Bioaccumulative potential	Not established.
<b>Vinyltris(methylethylketoxime)silane (2224-33-1)</b>	
BCF - Other aquatic organisms [1]	364.8 l/kg (BCFBAF v3.01, Estimated value, Fresh weight)
Partition coefficient n-octanol/water (Log Pow)	10.19 (Estimated value, KOWWIN)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	5.773 (log Koc, SRC PCKOCWIN v2.0, Calculated value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
<b>butan-2-one O,O',O''-(methylsilylidyne)trioxime (22984-54-9)</b>	
BCF - Fish [1]	0.5 – 5.8 (6 week(s), Cyprinus carpio, Flow-through system, Experimental value)
Partition coefficient n-octanol/water (Log Pow)	0.36 (Experimental value)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	5.481 (log Koc, SRC PCKOCWIN v2.0, Calculated value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
<b>2-butanone oxime; ethyl methyl ketoxime; ethyl methyl ketone oxime (96-29-7)</b>	
BCF - Fish [1]	0.5 – 5.8 (OECD 305: Bioconcentration: Flow-Through Fish Test, 42 day(s), Cyprinus carpio, Fresh water, Experimental value, GLP)
Partition coefficient n-octanol/water (Log Pow)	0.63 (Experimental value, Equivalent or similar to OECD 117)

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<b>2-butanone oxime; ethyl methyl ketoxime; ethyl methyl ketone oxime (96-29-7)</b>	
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	0.55 (log Koc, SRC PCKOCWIN v2.0, QSAR)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

### 12.4. Mobility in soil

<b>CFS-SP SIL</b>	
Mobility in soil	No additional information available

<b>Vinyltris(methylethylketoxime)silane (2224-33-1)</b>	
Partition coefficient n-octanol/water (Log Pow)	10.19 (Estimated value, KOWWIN)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	5.773 (log Koc, SRC PCKOCWIN v2.0, Calculated value)
Ecology - soil	Adsorbs into the soil.

<b>butan-2-one O,O',O''-(methylsilylidyne)trioxime (22984-54-9)</b>	
Partition coefficient n-octanol/water (Log Pow)	0.36 (Experimental value)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	5.481 (log Koc, SRC PCKOCWIN v2.0, Calculated value)
Ecology - soil	Adsorbs into the soil.

<b>2-butanone oxime; ethyl methyl ketoxime; ethyl methyl ketone oxime (96-29-7)</b>	
Surface tension	30.29 mN/m (16 °C)
Partition coefficient n-octanol/water (Log Pow)	0.63 (Experimental value, Equivalent or similar to OECD 117)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	0.55 (log Koc, SRC PCKOCWIN v2.0, QSAR)
Ecology - soil	Highly mobile in soil.

### 12.5. Other adverse effects

Ozone	Not classified
Other adverse effects	No additional information available

## SECTION 13: Disposal considerations

Waste treatment methods	Dispose of contents/container in accordance with licensed collector's sorting instructions.
Product/Packaging disposal recommendations	Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

## SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / RID /

ADR	IMDG	IATA	RID
<b>14.1. UN number or ID number</b>			
Not applicable	Not applicable	Not applicable	Not applicable
<b>14.2. UN proper shipping name</b>			
Not applicable	Not applicable	Not applicable	Not applicable
<b>14.3. Transport hazard class(es)</b>			
Not applicable	Not applicable	Not applicable	Not applicable



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ADR	IMDG	IATA	RID
<b>14.4. Packing group</b>			
Not applicable	Not applicable	Not applicable	Not applicable
<b>14.5. Environmental hazards</b>			
Not applicable	Not applicable	Not applicable	Not applicable
No supplementary information available			

### 14.6. Special precautions for user

#### Overland transport

Not applicable

#### Transport by sea

Not applicable

#### Air transport

Not applicable

#### Rail transport

Not applicable

### 14.7. Maritime transport in bulk according to IMO instruments

Not applicable

## SECTION 15: Regulatory information

### 15.1. Safety, health and environmental regulations specific for the product in question

Regulation	Component / Mixture
Arms and Explosives Act	Not applicable
Chemical Weapons Prohibition Act	
Environmental Protection and Management (Air Impurities) Regulations	
Environmental Protection and Management Act (Hazardous Substances)	
Environmental Public Health (Quality of Piped Drinking Water) Regulations	
Fire Safety Act/Fire Safety (Petroleum and Flammable Materials) Regulations	
Maritime and Port Authority of Singapore (Dangerous, Petroleum and Explosives) Regulations	
Misuse of Drugs Act	
Poisons Act	
Poisons Rules	
Hazardous waste (Control of export, import and transit) Act	
Strategic goods (Control) Act	

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### 15.2. International regulations

No additional information available

### 15.3 Chemical inventory status

No additional information available

## SECTION 16: Other information

Issue date	12/02/2025
Revision date	12/02/2025
Data sources	REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.
Other information	None.

Indication of changes			
Section	Changed item	Change	Comments
	Regulations Singapore	Modified	
1	Emergency number	Modified	

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This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.