CFS-S SIL / CP 601S

Safety Data Sheet

According to SS 586 Part 3: 2014
Issue date: 15.11.2022 Revision date: 15.11.2022 Supersedes: 15.02.2018 Version: 7.2

SECTION 1: Identification

1.1. Product identifier

Name: CFS-S SIL / CP 601S
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

Recommended use: Adhesives, sealants

1.4. Supplier's details

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

1.5. Emergency phone number

Emergency number: Schweizerisches Toxikologisches Informationszentrum – 24h Service
+41 44 251 51 51 (international)
+65 6777 7887

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Not classified as hazardous according to GHS

2.2. GHS label elements including precautionary statements

No labelling applicable

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

3.2. Mixtures

Name	Synonyms	Concentration (%)	Formula	Product identifier
bis(ethyl acetoacetato-O1',O3)bis(2-methylpropan-1-olato)titanium	bis(ethyl acetoacetato-O-{1}-',O-{3}-)bis(2-methylpropan-1-olato)titanium / titanium, bis(ethyl 3-oxobutanoato-O(1')-,O(3))bis(2-methyl-1-propanolato)- / titaniumacetylacetate	< 2.5	C20H35O8Ti	CAS-No.: 83877-91-2 EC-No.: 281-161-6

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	Get medical advice/attention if you feel unwell. Allow affected person to breathe fresh air. Allow the victim to rest.
Skin contact	Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. If skin irritation occurs: Get medical advice/attention.
Eye contact	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persists.
Ingestion	Drink plenty of water. Do NOT induce vomiting. Get immediate medical advice/attention. Rinse mouth. Obtain emergency medical attention.

4.2. Most important symptoms/effects, acute and delayed

Symptoms/effects	Not expected to present a significant hazard under anticipated conditions of normal use.

4.3. Indication of immediate medical attention and special treatment needed

Other medical advice or treatment	Methanol (CAS 67-56-1) is readily and rapidly absorbed at all exposure routes and is toxic by all routes. Methanol may cause irritation of the mucosa, as well as nausea, vomiting, headaches, vertigo and visual disorders, including blindness (irreversible damage to the optic nerve), acidosis, spasms, narcosis and coma. There may be a delay in the onset of these effects after exposure. Further toxicology information in section 11 must be observed.

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media

Suitable extinguishing media	Water spray. Carbon dioxide. dry chemical powder, alcohol-resistant foam, carbon dioxide (CO2). Sand. Foam. Dry powder.
Unsuitable extinguishing media	Do not use a heavy water stream.

5.2. Specific hazards arising from the chemical

Reactivity in case of fire	Formation of toxic gases is possible during heating or in case of fire. Decomposition products may be a hazard to health.
Hazardous decomposition products in case of fire	Carbon dioxide. Carbon monoxide.

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	Self-contained breathing apparatus. Complete protective clothing. Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

No additional information available

6.1.1. For non-emergency personnel

Protective equipment	Wear recommended personal protective equipment.
Emergency procedures	Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapours/spray. Do not touch or walk on the spilled product. Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment	For further information refer to section 8: "Exposure controls/personal protection". Equip cleanup crew with proper protection.
Emergency procedures	Ventilate area.

6.2. Environmental precautions

Avoid release to the environment. Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment	Absorb spilled material with sand or earth. Collect spillage.
Methods for cleaning up	Take up mechanically (sweeping, shovelling) and collect in suitable container for disposal. Clean contaminated surfaces with an excess of water. On land, sweep or shovel into suitable containers. Minimise generation of dust. Store away from other materials.

6.4. Reference to other sections

For further information refer to section 13. See Section 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	Wear personal protective equipment. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour.
Hygiene measures	Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	Keep cool. Store in a dry place. Keep only in the original container in a cool, well ventilated place away from : Keep container closed when not in use.
Incompatible products	Strong bases. Strong acids.
Incompatible materials	Sources of ignition. Direct sunlight.
Storage temperature	5 – 25 °C

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters/Occupational exposure limits

No additional information available

8.2. Monitoring

No additional information available

8.3. Appropriate engineering control measures

No additional information available

8.4. Personal protection

Hand protection: Protective gloves. EN 374. The permeation time is not the maximum wearing time! Generally speaking, it must be reduced. Contact with either mixtures of substances or different substances may shorten the protective function's effective duration. Wear protective gloves.

Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Disposable gloves	Butyl rubber	6 (> 480 minutes)	>0.3		EN ISO 374
Disposable gloves	Nitrile rubber (NBR)	1 (> 10 minutes)	>0.4		EN ISO 374

Eye protection: Chemical goggles or safety glasses

Type	Field of application	Characteristics	Standard
Safety glasses			EN 166, EN 170

Skin and body protection: Wear suitable protective clothing

Respiratory protection	No respiratory protection needed under normal use conditions. Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. Wear appropriate mask

Device	Filter type	Condition	Standard
Full face mask	ABEK		EN 136

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.
Molecular mass	Not determined
Colour	Various colours
Odour	slight
Odour threshold	Not determined
pH	≈ Not applicable
Relative evaporation rate (butylacetate=1)	No data available
Melting point	No data available
Freezing point	No data available
Boiling point	No data available
Flash point	65 °C (ISO 3679)
Auto-ignition temperature	> 400 °C (DIN 51794)
Decomposition temperature	> 300 °C (Lit)
Flammability	No data available
Vapour pressure	No data available
Relative vapour density at 20°C	No data available
Relative density	No data available
Density	1.5 – 1.54 g/cm³ 23°C, 1013hPa (ISO 1183-1 A)
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	> 1000000 mPa.s (Brookfield)
Explosive properties	No data available
Oxidising properties	No data available
Explosive limits	No data available

9.2. Other information

Explosion limits for released methanol	5.5 - 44%(V)

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

Reacts with: water, basic substances and acids . Reaction causes the formation of: methanol.

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

CFS-S SIL / CP 601S	
LD50 oral rat	> 2000 mg/kg

bis(ethyl acetoacetato-O1',O3)bis(2-methylpropan-1-olato)titanium (83877-91-2)	
LD50 oral rat	> 5000 mg/kg bodyweight (Rat, Oral)

Skin corrosion/irritation	Not classified pH: ≈ Not applicable
Serious eye damage/irritation	Not classified
Respiratory or skin sensitisation	Not classified
Germ cell mutagenicity	Not classified
Carcinogenicity	Not classified
Reproductive toxicity	Not classified
STOT-single exposure	Not classified

bis(ethyl acetoacetato-O1',O3)bis(2-methylpropan-1-olato)titanium (83877-91-2)	
STOT-single exposure	May cause drowsiness or dizziness. May cause respiratory irritation.

STOT-repeated exposure	Not classified
Aspiration hazard	Not classified

CFS-S SIL / CP 601S	
Density	1.5 – 1.54 g/cm³ 23°C, 1013hPa (ISO 1183-1 A)

Potential adverse human health effects and symptoms	Based on available data, the classification criteria are not met.
Other information	Hydrolysis product / impurity: Methanol (CAS 67-56-1) is readily and rapidly absorbed at all exposure routes and is toxic by all routes. Methanol may cause irritation of the mucosa, as well as nausea, vomiting, headaches, vertigo and visual disorders, including blindness (irreversible damage to the optic nerve), acidosis, spasms, narcosis and coma. There may be a delay in the onset of these effects after exposure.

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.

bis(ethyl acetoacetato-O1',O3)bis(2-methylpropan-1-olato)titanium (83877-91-2)	
EC50 - Crustacea [1]	> 100 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Reaction product)

12.2. Persistence and degradability

CFS-S SIL / CP 601S	
Persistence and degradability	Polymer component. biologically not degradable. Elimination by adsorption to activated sludge. The product of hydrolysis (methanol) is readily biodegradable.

bis(ethyl acetoacetato-O1',O3)bis(2-methylpropan-1-olato)titanium (83877-91-2)	
Persistence and degradability	Biodegradability: not applicable.

12.3. Bioaccumulative potential

CFS-S SIL / CP 601S	
Bioaccumulative potential	Polymer component. No bioaccumulation expected.

bis(ethyl acetoacetato-O1',O3)bis(2-methylpropan-1-olato)titanium (83877-91-2)	
Bioaccumulative potential	Bioaccumulation: not applicable.

12.4. Mobility in soil

CFS-S SIL / CP 601S	
Mobility in soil	No additional information available

bis(ethyl acetoacetato-O1',O3)bis(2-methylpropan-1-olato)titanium (83877-91-2)	
Ecology - soil	No (test)data on mobility of the substance available.

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.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / RID /

ADR	IMDG	IATA	RID
14.1. UN number or ID number			
Not applicable	Not applicable	Not applicable	Not applicable
14.2. UN proper shipping name			
Not applicable	Not applicable	Not applicable	Not applicable
14.3. Transport hazard class(es)			
Not applicable	Not applicable	Not applicable	Not applicable
14.4. Packing group			
Not applicable	Not applicable	Not applicable	Not applicable

ADR	IMDG	IATA	RID
14.5. Environmental hazards			
Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: No	Dangerous for the environment: No	Dangerous for the environment: No
No supplementary information available			

14.6. Special precautions for user

Overland transport
No data available

Transport by sea
No data available

Air transport
No data available

Rail transport
No data available

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

No additional information available

15.2. International regulations

No additional information available

15.3 Chemical inventory status

No additional information available

SECTION 16: Other information

Issue date	15/11/2022
Revision date	15/11/2022
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**
			general update

SDS_SG_Hilti

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.