

According to Taiwan Ministry of Labour Lao-zhi Shou-tzu No. 10702052242, "Regulations for the Labeling and Hazard Communication of Hazardous

Chemicals"

Issue date: 2024/11/12 Revision date: 2024/11/12 Supersedes: 2022/11/15 Version: 7.4

1. Identification of the chemical and of the business entity

Chemical name CFS-S SIL / CP 601S
Product code BU Fire Protection



Other Names

Recommended use Adhesives, sealants

Restrictions on use

Names, addresses, and phone numbers of manufacturer, importer or supplier

Supplier

喜利得股份有限公司

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Department issuing data specification sheet

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2. Hazard(s) identification

GHS classification (Taiwan)

-

Label content

Hazard pictograms (GHS TW) Signal word (GHS TW) Hazard statements (GHS TW) Precautionary statements Prevention precautionary statements Response Precautionary Statements Storage precautionary statements Disposal precautionary statements -

Other hazards which do not result in

classification

Product hydrolyses under formation of methanol (CAS no. 67-56-1). Methanol is toxic by inhalation, in contact with skin and if swallowed. Methanol causes

damage to organs. Methanol is highly flammable.

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3. Composition/information on ingredients

Substance:

Not applicable

Mixture:

Chemical properties Refer to Section 9

Name		Concentrati on
diisobutoxy-bisethylacetoacetatotitanate	83877-91-2	< 2

4. First-aid measures

First aid measures for different exposure routes

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)

First-aid measures after inhalation Get medical advice/attention if you feel unwell. - Allow affected person to

breathe fresh air - Allow the victim to rest

First-aid measures after 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.

First-aid measures after 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

First-aid measures after ingestion Drink plenty of water - Do NOT induce vomiting. - Get immediate medical advice/attention. - Rinse mouth - Obtain emergency medical attention

Most Important Symptoms/Effects

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

normal use

Protection for the first aid staff

Personal Protection in First Aid and

Measures

Notes to physician

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.

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5. Firefighting measures

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

Specific hazards arising from firefighting measures

Fire hazard Explosion hazard General measures -

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.

Specific firefighting methods

fighting any chemical fire - Prevent fire fighting water from entering the

environment

Special protective equipment and precautions for fire-fighters

Protection during firefighting Self-contained breathing apparatus - Complete protective clothing - Do not enter

fire area without proper protective equipment, including respiratory protection

Personal protection (Emergency response)

6. Accidental release measures

Personal precautions

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

 $\label{eq:continuous} Evacuate \ unnecessary \ personnel$

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

Environmental precautions

Environmental precautions Avoid release to the environment

Prevent entry to sewers and public waters

Notify authorities if liquid enters sewers or public waters

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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.

7. Handling and storage

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

Storage

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~ – $~25~^{\circ}$ C

8. Exposure controls/personal protection

Appropriate engineering controls

Control parameters

No additional information available

Additional information	The product has a pasty consistency. Exposure limit values for respirable dusts
	are not relevant for this product.

Personal protective equipment

General:

 $Personal\ protective\ equipment:$

Protective clothing. Safety glasses. Gloves. Avoid all unnecessary exposure.

Respiratory protection:

Respiratory protection needed under normal use conditions. Where exposure

through inhalation may occur from use, respiratory protection equipment is

recommended. Wear appropriate mask

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Device	Filter type	Condition	Standard
Full face mask	ABEK		EN 136

Hand protection:

Hand protection Protective gloves. ISO 374-1. 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 $\frac{1}{2}$

effective duration. Wear protective gloves.

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

Eye protection:

Eye protection Chemical goggles or safety glasses

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

Skin and body protection:

Skin and body protection Wear suitable protective clothing

Personal protective equipment symbol(s):







Hygiene measures:

Wash contaminated clothing before reuse.

Do not eat, drink or smoke when using this product.

Always wash hands after handling the product

9. Physical and chemical properties

Appearance Pasty
Physical state Liquid

Molecular mass Not determined
Colour Various colours

Odour slight

Odour threshold [ppm] No data available Odour threshold Not determined рΗ \approx Not applicable Evaporation rate No data available No data available Melting point Boiling point No data available Flash point Pasty; Not relevant Auto-ignition temperature > 400 ° C (DIN 51794) > 300 ° C (Lit) Decomposition temperature Flammability (solid, gas) No data available No data available Vapour pressure Relative vapour density at 20° C No data available

Additional information Explosion limits for released methanol: 5.5 - 44% (V) Density $1.5 - 1.54 \text{ g/cm}^3 23^{\circ} \text{ C, } 1013\text{hPa (ISO } 1183-1 \text{ A)}$

Solubility insoluble in water.

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Partition coefficient n-octanol/water (Log

Kow)

Viscosity, dynamic

> 1000000 mPa • s (Brookfield)

Explosive limits (vol %)

No data available

No data available

10. Stability and reactivity

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

transport

Chemical stability Stable under normal conditions. Not established

Possibility of hazardous reactions
No dangerous reactions known under normal conditions of use

Not established

Conditions to avoid None under recommended storage and handling conditions (see section 7). Direct

sunlight. Extremely high or low temperatures

Incompatible materials Reacts with: water, basic substances and acids . Reaction causes the formation

of: methanol

Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products

should not be produced

fume

Carbon monoxide Carbon dioxide

11. Toxicological information

Routes	of	exposure
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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.

Symptoms

Potential adverse human health effects and

Based on available data, the classification criteria are not met

Acute toxicity

Acute toxicity (oral)

Acute toxicity (dermal)

Acute toxicity (inhalation)

Not classified

Not classified

CFS-S SIL / CP 601S

LD50 oral rat > 2000 mg/kg

diisobutoxy-bisethylacetoacetatotitanate (83877-91-2)

LD50 oral rat > 5000 mg/kg bodyweight (Rat, Oral)

Skin corrosion/irritation

Skin corrosion/irritation Not classified

pH: \approx Not applicable

Serious eye damage/irritation

Serious eye damage/irritation Not classified

Respiratory or skin sensitisation

Respiratory or skin sensitisation Not classified

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Chronic toxicity or long-term toxicity

Germ cell mutagenicity

Germ cell mutagenicity Not classified

Carcinogenicity

Carcinogenicity Not classified

Reproductive toxicity

Reproductive toxicity Not classified

STOT-single exposure

STOT-single exposure Not classified

diisobutoxy-bisethylacetoacetatotitanate (83877-91-2)			
STOT-single exposure	May cause drowsiness or dizziness. May cause respiratory irritation.		

STOT-repeated exposure

STOT-repeated exposure Not classified

Aspiration hazard

Aspiration hazard Not classified
Viscosity, kinematic No data available

12. Ecological information

Ecotoxicity

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)

Hazardous to the aquatic environment, Not classified

short-term (acute)

diisobutoxy-bisethylacetoacetatotitanate (8	3877-91-2)
	> 100 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Reaction product)

Hazardous to the aquatic environment, long-term (chronic)

Hazardous to the aquatic environment, \log - $\,\,$ Not classified

term (chronic)

Additional ecotoxicological information

No additional information available

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.			
diisobutoxy-bisethylacetoacetatotitanate (83877-91-2)			
Persistence and degradability Biodegradability: not applicable			

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Bioaccumulative potential

CFS-S SIL / CP 601S		
Bioaccumulative potential	Polymer component, No bioaccumulation expected	
diisobutoxy-bisethylacetoacetatotitanate (83877-91-2)		
diisobutoxy-bisethylacetoacetatotitanate (8	3877-91-2)	

Mobility in soil

diisobutoxy-bisethylacetoacetatotitanate (83877-91-2)		
Ecology - soil	No (test)data on mobility of the substance available.	

Other adverse effects

Ozone Not classified

Other information Avoid release to the environment.

13. Disposal considerations

Waste treatment methods Dispose of contents/container in accordance with licensed collector's sorting

instructions

Ecological information Avoid release to the environment.

Sewage disposal recommendations

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	14.1. UN number or ID number				
Not applicable	Not applicable	Not applicable	Not applicable		
14.2. UN proper shipping nam	е				
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		
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

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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

15. Regulatory information

Applicable regulations

- 1. Methods and Facilities Standards for the Storage, Clearance and Disposal of Industrial Waste
- 2. Traffic Safety Rule

16. Other information

Literature references 1. 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

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Section	Changed item	Change	Comments
			general update

Other information None

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.

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