

Revision: 2.1

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Section 1. Identification

1.1 Product Identifier 2476

Product Name ORGANOFUNCTIONAL SILANE A-187
CAS Number 2530-83-8
REACH Registration No 01-2119513212-58-XXXX

1.2 Relevant identified uses of the substance or mixture & uses advised against

Uses of Material Chemical for industrial and laboratory use. Not suitable for domestic use.

1.3 Supplier Vickers Laboratories Ltd



Grangefield Industrial Estate
Richardshaw Road
Pudsey
West Yorkshire
LS28 6QW
UNITED KINGDOM

Phone 44 0113 2362811
Fax +44(0)113 2362703
Email safety@viclabs.co.uk
Website www.viclabs.co.uk

1.4 Emergency Telephone (08:00-16:30) +44(0) 113 2362811 (24hr) 112 (Have this document to hand)

Section 2. Hazards Identification

2.1 Classification of the substance or mixture

Classification according to regulation 1272/2008/EC

Serious eye damage/irritation, category 1
Hazard to aquatic environment, category 3

H318: Causes serious eye damage.
H412: Harmful to aquatic life with long lasting effects.

2.2 Label elements

Labelling according to regulation 1272/2008/EC

Signal word Danger

Hazard Pictograms



Hazard Statements Causes serious eye damage. Harmful to aquatic life with long lasting effects.

Precautionary Statements Wash thoroughly after handling. Wear protective gloves / protective clothing / eye protection. IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse. Avoid release to the environment.

Section 3. Composition

3.1 Substances

Component	CAS No.	EEC No.	REACH No.	Conc w/w	CLP Classification (1272/2008/CE)
gamma-Glycidoxypropyltrimeth	2530-83-8	219-784-2	01-2119513212-58-XXXX	>99%	Eye Dam. 1, Aquatic Chronic 3
Methanol	67-56-1	200-659-6	01-2119433307-44-XXXX	<0.2%	Flam. Liq. 2, Acute Tox. 3 (O), Acute Tox. 3 (D), Acute Tox. 3 (I), STOT SE 1

Section 4. First Aid

4.1 Description of first aid measures

Eyes	Irrigate thoroughly with plenty of water for at least 10 minutes, holding the eye open. OBTAIN MEDICAL ATTENTION.
Skin	Wash off skin thoroughly with water. Remove contaminated clothing immediately and wash before re-use.
Inhalation	Remove from exposure.
Ingestion	If conscious give plenty of water to drink. Induce vomiting. OBTAIN MEDICAL ATTENTION URGENTLY.
Personal protection for first aiders	Wear protective gloves / eye protection.

4.2 Most important symptoms and effects, both acute & delayed.

No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed.

No further relevant information available.

Section 5. Fire Fighting

5.1 Extinguishing media

Extinguishing Media	Alcohol resistant foam, dry powder, or carbon dioxide. Use water spray to keep fire exposed containers cool.
Unsuitable Media	Do not use water jet.

5.2 Special hazards arising from the substance or mixture

Hazards	Presents no specific fire danger.
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5.3 Advice for firefighters

Advice for firefighters	Evacuate area immediately. Keep up wind. Avoid exposure to toxic vapours and fumes. Fire-fighters should wear protective clothing and breathing apparatus.
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Section 6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Protection	Ensure no sources of ignition. Avoid breathing vapour. Use approved personal protective equipment. Evacuate area immediately. Do not allow general use of area until it is safe to do so. Beware : vapour is heavier than air and will tend to accumulate at low spots.
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6.2 Environmental precautions

Environmental	Keep material out of sewers, storm drains, surface waters and soil. Notify the Environmental Agency and local Environmental Health Officer if major spillage occurs.
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6.3 Methods and material for containment and cleaning up

Major Spillage	Contain and absorb on inert material. Transfer absorbent to salvage container for removal. Wash area down with copious amounts of water.
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Minor Spillage

Contain and absorb on inert material. Transfer absorbent to container for removal. Allow solvent to evaporate in remote area, then dispose of absorbent as solid chemical waste. Wash area down with copious amounts of water.

6.4 Reference to other sections

See section 8.2 for information on protective equipment and section 13 for information on disposal.

Section 7. Storage & Handling

7.1 Precautions for safe handling

All transfer systems should be earthed to prevent accumulation of static electricity. Avoid contact with skin and eyes. Do not breath vapours. Do not allow to contaminate clothing.

Ensure Local Exhaust Ventilation maintains vapour concentrations below the recommended limits.

7.2 Conditions for safe storage, including any incompatibilities

Well ventilated, cool, dry storage . Protect from direct sun and store away from sources of ignition. Keep containers closed when not in use. Protect against moisture to prevent decomposition and corrosion.

7.3 Specific end use(s)

See section 1.2.

Section 8. Workplace Exposure & Personal Protection

8.1 Control parameters

Component	CAS No	Concentration	Workplace Exposure Limits			
			Long Term (8hr TWA)		Short Term 15min period	
gamma-Glycidoxypropyltrim eth	2530-83-8	>99%	-	-	-	-
Methanol	67-56-1	<0.2%	200.0 ppm	266.0 mg/m-3	250.0 ppm	333.0 mg/m-3

Exposure data source(s) IOELV: Indicative Occupational Exposure Limit Value.

8.2 Exposure controls

Respiratory Protection	Use L.E.V. or natural ventilation to maintain vapour concentrations below exposure limits. If not, use a well maintained chemical cartridge organic vapour respirator, or use self contained breathing apparatus.
Hand Protection	Use solvent resistant gloves.
Eye Protection	Use tightly fitting chemical splash proof glasses or goggles.
Skin Protection	Avoid contact with skin. If skin contact or contamination of clothing is likely, protective clothing must be worn.
Special Hazards	No special precautions required.

Section 9. Physical & Chemical Properties

9.1 Information on basic physical and chemical properties

Appearance	Pale straw coloured liquid.
Odour	Characteristic ester type odour.
pH	Not applicable
Boiling Point	260.4 °C
Melting Point	-97.8 °C
Flash Point	110°C (Closed cup)
Upper Flammable Limit	Not applicable
Lower Flammable Limit	Not applicable
Auto Ignition	Not applicable
Explosive Properties	No.
Oxidising Properties	No.
Vapour Pressure	Not applicable
Relative Density	1.0710
Water Solubility	Reacts slowly with water.

9.2 Other information

No data available.

Section 10. Stability & Reactivity

10.1	Reactivity	No data available.
10.2	Chemical Stability	Stable under normal conditions
10.3	Possibility of hazardous reactions	No data available.
10.4	Conditions to Avoid	Hot surfaces, naked flames or other sources of ignition.
10.5	Incompatible Materials	Strong oxidising agents.
10.6	Hazardous Decomposition Products	Burning can produce carbon monoxide,dioxide and oxides of silicon.

Section 11. Toxicological Information

11.1 Information on toxicological effects

Eyes	Depending on exposure there may be mild to moderate conjunctivitis with possible corneal injury.
Skin	Repeated or prolonged contact may defat the skin producing irritation and dermatitis.
LD50 Skin	>4000 mg/Kg Rabbit
Ingestion	Ingestion will cause symptoms resembling those of alcoholic intoxication ie excitation and irritability. After a latent period of 10-15 hours more serious damage to the central nervous system especially to the optic nerve occurs. Even if death does not occur permanent blindness may occur.
LD50 Oral	>24000 mg/Kg Rat
Inhalation	Presents no significant health hazard by inhalation.
LD50 Inhalation	Not available
TCLo	Not available
Carcinogenicity	Not considered to be a carcinogen.
Mutagenicity	Not considered to be a mutagen.
Reproductive Effects	No information is available.
Other Information	The major health hazard is that on ingestion it decomposes to form methanol.

Section 12. Ecological

12.1	Toxicity	Toxic to aquatic organisms. Very toxic to fish. Marine pollutant- may cause long term adverse effects in the aquatic environment.
	LC50 Algal	288 mg/L Algae (96 hours)
	LC50 Crustacea	266 mg/L (48 hours)
	LC50 Fish	45 mg/L Fish (96 hours)
12.2	Persistence and degradability	No data available.
12.3	Bioaccumulative potential	No data available.
12.4	Mobility in soil	No data available.
12.5	Results of PBT & vPvB assessment	Assessment not required.
12.6	Other adverse effects	None known at present.

Section 13. Disposal Considerations

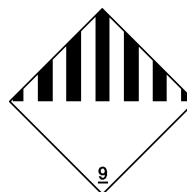
13.1 Waste treatment methods

Disposal Methods Dispose of in a licensed incinerator for organic solvents. Do not dispose of as domestic waste. Never dispose of into water courses or sewerage systems due to high risk of explosion.

Contaminated Packaging Use a licensed waste disposer. Do not attempt to burn any residual liquids due to risk of explosion.

Section 14. Transport Information

14.1 UN Number 3082
14.2 Proper Shipping Name Environmentally hazardous substance, liquid,
N.O.S. (Gamma-Glycidoxypropyltrimethoxysilane)



14.3 Transport classes
UN classification 9
Subsidiary hazard(s) None
Transport category 3
ADR Hazard ID 90
Tunnel Restriction Code E

Single packs and combination packages containing inner packs of up to 5L or 5Kg are excluded from regulation (ADR 2.2.9.1.10, IMDG code 2.10.3).

14.4 Packing Group III
14.5 Environment hazards Marine pollutant.
14.6 Special precautions for user No special precautions required.
14.7 Transport in bulk Not transported in bulk.

Section 15. Regulatory Information

15.1 Safety, health and environment regulations specific for substance/mixture.

Classification, Labeling & Packaging of Substances & Mixtures Regulations (1272/2008/CE)

Classification Serious eye damage/irritation, category 1; Hazard to aquatic environment, category 3

Signal word Danger

Hazard Pictograms



Hazard Statements H318, H412
Causes serious eye damage. Harmful to aquatic life with long lasting effects.

Precautionary Statements P264, P280, P302+P352, P332+P313, P362, P273
Wash thoroughly after handling. Wear protective gloves / protective clothing / eye protection. IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse. Avoid release to the environment.

15.2 Chemical safety assessment

Assessment not required.

Section 16. Other Information

The information contained in this document only covers the hazards presented by this material, it DOES NOT constitute a workplace risk assessment. See sections 11 for toxicological information and section 12 for ecological information.

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