



## SAFETY DATA SHEET METALSEAL 20

According to REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758

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

#### 1.1. Product identifier

**Product name** METALSEAL 20

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

**Identified uses** Sprayable/Brushable Coating

**Uses advised against** Use only for intended applications.

#### 1.3. Details of the supplier of the safety data sheet

**Supplier** Liquasil Ltd  
Unit 3 Radway Industrial Estate  
Radway Road  
Solihull  
West Midlands  
B90 4NR  
0121 709 5352  
info@liquasil.com

#### 1.4. Emergency telephone number

**Emergency telephone** 0121 709 5352 (office hours only)

### SECTION 2: Hazards identification

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

##### Classification (EC 1272/2008)

**Physical hazards** Not Classified

**Health hazards** Not Classified

**Environmental hazards** Not Classified

#### 2.2. Label elements

**Hazard statements** NC Not Classified

**Supplemental label information** EUH066 Repeated exposure may cause skin dryness or cracking.  
EUH208 Contains N-(3-(Trimethoxysilyl)propyl)ethylenediamine. May produce an allergic reaction.  
EUH210 Safety data sheet available on request.

#### 2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB. Curing process releases 2-pentanone oxime. 2-Pentanone oxime is classified as harmful if swallowed, causes serious eye irritation, may cause damage to blood/spleen through prolonged/repeated exposure and is harmful to aquatic life with long lasting effects.

### SECTION 3: Composition/information on ingredients

#### 3.2. Mixtures

## METALSEAL 20

<b>Hydrocarbons, C11-C13, isoalkanes, &lt;2% aromatics</b>	<b>10 - &lt;20%</b>
CAS number: —	EC number: 920-901-0
	REACH registration number: 01-2119456810-40-XXXX
<b>Classification</b>	
Asp. Tox. 1 - H304	
<b>O,O',O''-(Methylsilylidyne)trioxime 2-pentanone</b>	<b>&lt; 5%</b>
CAS number: 37859-55-5	EC number: 484-460-1
	REACH registration number: 01-2120004323-76-XXXX
<b>Classification</b>	
Acute Tox. 4 - H302	
Eye Irrit. 2 - H319	

The full text for all hazard statements is displayed in Section 16.

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

<b>General information</b>	In all cases of doubt, or if symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.
<b>Inhalation</b>	Move affected person to fresh air at once. Get medical attention if any discomfort continues.
<b>Ingestion</b>	Rinse mouth thoroughly with water. Do not induce vomiting. Get medical attention if any discomfort continues.
<b>Skin contact</b>	Remove contaminated clothing. Wash skin thoroughly with soap and water. Get medical attention if any discomfort continues. In the event of any sensitisation symptoms developing, ensure further exposure is avoided.
<b>Eye contact</b>	Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

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

<b>General information</b>	Curing process releases 2-pentanone oxime. 2-Pentanone oxime is classified as harmful if swallowed, causes serious eye irritation, may cause damage to blood/spleen through prolonged/repeated exposure. Curing process releases a small amount of methanol.
<b>Inhalation</b>	No specific symptoms known.
<b>Ingestion</b>	May cause stomach pain or vomiting.
<b>Skin contact</b>	Prolonged contact may cause redness, irritation and dry skin. May cause an allergic skin reaction.
<b>Eye contact</b>	May cause temporary eye irritation.

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

<b>Notes for the doctor</b>	Treat symptomatically.
<b>Specific treatments</b>	Antidote for methanol poisoning is ethanol.

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

## METALSEAL 20

<b>Suitable extinguishing media</b>	Water spray. Foam, carbon dioxide or dry powder.
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.

### 5.2. Special hazards arising from the substance or mixture

<b>Specific hazards</b>	No unusual fire or explosion hazards noted.
<b>Hazardous combustion products</b>	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

### 5.3. Advice for firefighters

<b>Protective actions during firefighting</b>	Avoid breathing fire gases or vapours. Keep up-wind to avoid fumes.
<b>Special protective equipment for firefighters</b>	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

## SECTION 6: Accidental release measures

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

<b>Personal precautions</b>	In case of spills, beware of slippery floors and surfaces. Wear appropriate protective clothing.
-----------------------------	--

### 6.2. Environmental precautions

<b>Environmental precautions</b>	Do not discharge into drains or watercourses or onto the ground.
----------------------------------	--

### 6.3. Methods and material for containment and cleaning up

<b>Methods for cleaning up</b>	Absorb in vermiculite, dry sand or earth and place into containers.
--------------------------------	---

### 6.4. Reference to other sections

<b>Reference to other sections</b>	For personal protection, see Section 8. See Section 11 for additional information on health hazards. For waste disposal, see section 13.
------------------------------------	--

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

<b>Usage precautions</b>	Avoid contact with eyes and prolonged skin contact. Provide adequate ventilation.
--------------------------	---

### 7.2. Conditions for safe storage, including any incompatibilities

<b>Storage precautions</b>	Store in tightly-closed, original container in a dry, cool and well-ventilated place.
----------------------------	---

### 7.3. Specific end use(s)

<b>Specific end use(s)</b>	The identified uses for this product are detailed in Section 1.2.
<b>Usage description</b>	Sprayable/Brushable Coating

## SECTION 8: Exposure controls/Personal protection

### 8.1. Control parameters

#### Occupational exposure limits

##### **Diocetyl tin dilaurate**

Long-term exposure limit (8-hour TWA): WEL 0.1 mg/m<sup>3</sup>

Short-term exposure limit (15-minute): WEL 0.2 mg/m<sup>3</sup>

as Sn

Sk

**Toluene**

## METALSEAL 20

Long-term exposure limit (8-hour TWA): WEL 50 ppm 191 mg/m<sup>3</sup>

Short-term exposure limit (15-minute): WEL 100 ppm 384 mg/m<sup>3</sup>

Sk

### Methanol

Long-term exposure limit (8-hour TWA): WEL 200 ppm 266 mg/m<sup>3</sup>

Short-term exposure limit (15-minute): WEL 250 ppm 333 mg/m<sup>3</sup>

Sk

WEL = Workplace Exposure Limit.

Sk = Can be absorbed through the skin.

### O,O',O''-(Methylsilylidyne)trioxime 2-pentanone (CAS: 37859-55-5)

<b>DNEL</b>	Workers - Inhalation; Long term systemic effects: 0.229 mg/m <sup>3</sup> Workers - Dermal; Long term systemic effects: 0.065 mg/kg
<b>PNEC</b>	Fresh water; 0.1 mg/l marine water; 0.01 mg/l STP; 2.15 mg/l Sediment (Freshwater); 0.569 mg/kg Sediment (Marinewater); 0.057 mg/kg Soil; 0.044 mg/kg

### Diocetyl tin dilaurate (CAS: 3648-18-8)

<b>DNEL</b>	Workers - Inhalation; Long term systemic effects: 0.004 mg/m <sup>3</sup>
<b>PNEC</b>	Fresh water; 0.002 µg/l Fresh water, Intermittent release; 0.018 µg/l marine water; 0.0002 µg/l STP; 100 mg/l Sediment (Freshwater); 0.028 mg/kg Sediment (Marinewater); 0.003 mg/kg Soil; 0.006 mg/kg Oral (food); 0.02 mg/kg

### Toluene (CAS: 108-88-3)

<b>DNEL</b>	Workers - Inhalation; Long term systemic effects: 192 mg/m <sup>3</sup> Workers - Inhalation; Short term systemic effects: 384 mg/m <sup>3</sup> Workers - Inhalation; Long term local effects: 192 mg/m <sup>3</sup> Workers - Inhalation; Short term systemic effects: 384 mg/m <sup>3</sup> Workers - Dermal; Long term systemic effects: 384 mg/kg/day
<b>PNEC</b>	- Fresh water; 0.68 mg/l - marine water; 0.68 mg/l - Intermittent release; 0.68 mg/l - STP; 13.61 mg/l - Sediment (Freshwater); 16.39 mg/kg - Sediment (Marinewater); 16.39 mg/kg - Soil; 2.89 mg/kg

### Methanol (CAS: 67-56-1)

## METALSEAL 20

### DNEL

Workers - Inhalation; Long term systemic effects: 130 mg/m<sup>3</sup>  
 Workers - Inhalation; Short term systemic effects: 130 mg/m<sup>3</sup>  
 Workers - Inhalation; Long term local effects: 130 mg/m<sup>3</sup>  
 Workers - Inhalation; Short term local effects: 130 mg/m<sup>3</sup>  
 Workers - Dermal; Long term systemic effects: 20 mg/kg/day  
 Workers - Dermal; Short term systemic effects: 20 mg/kg/day

### 8.2. Exposure controls

#### Protective equipment



#### Appropriate engineering controls

Provide adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment.

#### Eye/face protection

Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. Personal protective equipment for eye and face protection should comply with European Standard EN166.

#### Hand protection

Use protective gloves. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material.

#### Hygiene measures

Wash at the end of each work shift and before eating, smoking and using the toilet. Wash promptly if skin becomes contaminated.

#### Respiratory protection

Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible.

## SECTION 9: Physical and chemical properties

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

Appearance	Viscous liquid.
Colour	Various colours.
Odour	Mild (or faint).
Odour threshold	No information available.
pH	No information available.
Melting point	EC No.: 927-285-2: < -60°C
Initial boiling point and range	EC No.: 927-285-2: >185 - <255°C @ 1013 hPa
Flash point	EC No.: 927-285-2: 67°C Closed cup.
Evaporation rate	No information available.
Evaporation factor	No information available.
Flammability (solid, gas)	No information available.
Upper/lower flammability or explosive limits	Lower flammable/explosive limit: EC No.: 927-285-2: 0.5 % Upper flammable/explosive limit: EC No.: 927-285-2: 5 %
Vapour pressure	EC No.: 927-285-2: 0.035 kPa @ 20°C
Vapour density	No information available.
Relative density	~ 1.0 @ 20°C

## METALSEAL 20

<b>Solubility(ies)</b>	Insoluble in water.
<b>Partition coefficient</b>	No information available.
<b>Auto-ignition temperature</b>	EC No.: 927-285-2: 232°C
<b>Decomposition Temperature</b>	Not determined.
<b>Viscosity</b>	<300 P @ 20°C
<b>Explosive properties</b>	Not considered to be explosive.
<b>Oxidising properties</b>	The mixture itself has not been tested but none of the ingredient substances meet the criteria for classification as oxidising.

### 9.2. Other information

<b>Other information</b>	Not known.
--------------------------	------------

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

<b>Reactivity</b>	See the other subsections of this section for further details.
-------------------	--

### 10.2. Chemical stability

<b>Stability</b>	Stable at normal ambient temperatures.
------------------	--

### 10.3. Possibility of hazardous reactions

<b>Possibility of hazardous reactions</b>	Will not polymerise.
---	----------------------

### 10.4. Conditions to avoid

<b>Conditions to avoid</b>	Avoid excessive heat for prolonged periods of time.
----------------------------	---

### 10.5. Incompatible materials

<b>Materials to avoid</b>	Strong oxidising agents. Strong acids.
---------------------------	--

### 10.6. Hazardous decomposition products

<b>Hazardous decomposition products</b>	Does not decompose when used and stored as recommended. Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.
---	--

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

<b>Toxicological effects</b>	There are no data available on this product.
------------------------------	--

#### Acute toxicity - oral

<b>Notes (oral LD<sub>50</sub>)</b>	Based on available data the classification criteria are not met.
-------------------------------------	--

<b>ATE oral (mg/kg)</b>	35,436.35
-------------------------	-----------

#### Acute toxicity - dermal

<b>Notes (dermal LD<sub>50</sub>)</b>	Based on available data the classification criteria are not met.
---------------------------------------	--

#### Acute toxicity - inhalation

<b>Notes (inhalation LC<sub>50</sub>)</b>	Based on available data the classification criteria are not met.
---	--

#### Skin corrosion/irritation

<b>Skin corrosion/irritation</b>	Based on available data the classification criteria are not met.
----------------------------------	--

#### Serious eye damage/irritation

## METALSEAL 20

<b>Serious eye damage/irritation</b>	Based on available data the classification criteria are not met.
<b><u>Respiratory sensitisation</u></b>	
<b>Respiratory sensitisation</b>	Based on available data the classification criteria are not met.
<b><u>Skin sensitisation</u></b>	
<b>Skin sensitisation</b>	Based on available data the classification criteria are not met. May cause sensitisation or allergic reactions in sensitive individuals.
<b><u>Germ cell mutagenicity</u></b>	
<b>Summary</b>	Based on available data the classification criteria are not met.
<b><u>Carcinogenicity</u></b>	
<b>Carcinogenicity</b>	Based on available data the classification criteria are not met.
<b><u>Reproductive toxicity</u></b>	
<b>Reproductive toxicity - fertility</b>	Based on available data the classification criteria are not met.
<b>Reproductive toxicity - development</b>	Based on available data the classification criteria are not met.
<b><u>Specific target organ toxicity - single exposure</u></b>	
<b>STOT - single exposure</b>	Based on available data the classification criteria are not met.
<b><u>Specific target organ toxicity - repeated exposure</u></b>	
<b>STOT - repeated exposure</b>	Based on available data the classification criteria are not met.
<b><u>Aspiration hazard</u></b>	
<b>Aspiration hazard</b>	Based on available data the classification criteria are not met.
<b>General information</b>	Curing process releases 2-pentanone oxime. 2-Pentanone oxime is classified as harmful if swallowed, causes serious eye irritation, may cause damage to blood/spleen through prolonged/repeated exposure. Curing process may release a small amount of methanol which is irritating to mucous membranes and has skin drying and narcotic effects.
<b>Inhalation</b>	No specific symptoms known.
<b>Ingestion</b>	May cause stomach pain or vomiting.
<b>Skin contact</b>	May cause skin sensitisation or allergic reactions in sensitive individuals. Prolonged contact may cause dryness of the skin.
<b>Eye contact</b>	May cause temporary eye irritation.
<b>Acute and chronic health hazards</b>	Product may cause an allergic reaction in hypersensitive persons.
<b>Route of exposure</b>	Skin and/or eye contact
<b>Target organs</b>	Skin
<b>Medical symptoms</b>	Allergic rash.
<b>Medical considerations</b>	Skin disorders and allergies.

### Toxicological information on ingredients.

#### O,O',O''-(Methylsilylidyne)trioxime 2-pentanone

##### Acute toxicity - oral

**Summary** Harmful if swallowed.

## METALSEAL 20

<b>Acute toxicity oral (LD<sub>50</sub> mg/kg)</b>	1,234.0
<b>Species</b>	Rat
<b>ATE oral (mg/kg)</b>	1,234.0
<b><u>Acute toxicity - dermal</u></b>	
<b>Notes (dermal LD<sub>50</sub>)</b>	LD <sub>50</sub> >1782 mg/kg, Dermal, Rat Read-across data.
<b><u>Serious eye damage/irritation</u></b>	
<b>Summary</b>	Causes serious eye irritation.
<b>Serious eye damage/irritation</b>	OECD 405 Acute eye irritation / corrosion: Irritating (rabbit)

### SECTION 12: Ecological information

**Ecotoxicity** Not regarded as dangerous for the environment. Curing process releases 2-pentanone oxime. 2-Pentanone oxime is classified as harmful to aquatic life with long lasting effects.

#### 12.1. Toxicity

**Toxicity** There are no data for the product.

#### Ecological information on ingredients.

##### O,O',O''-(Methylsilylidyne)trioxime 2-pentanone

#### Acute aquatic toxicity

**Acute toxicity - fish** LC<sub>50</sub>, 96 hours: >113 mg/l, Oncorhynchus mykiss (Rainbow trout)  
Read-across data.

**Acute toxicity - aquatic invertebrates** EC<sub>50</sub>, 48 hours: >113 mg/l, Daphnia magna  
Read-across data.

**Acute toxicity - aquatic plants** EC<sub>50</sub>, 72 hours: 100 mg/l, Pseudokirchneriella subcapitata

#### 12.2. Persistence and degradability

**Persistence and degradability** The product is not readily biodegradable.

#### Ecological information on ingredients.

##### O,O',O''-(Methylsilylidyne)trioxime 2-pentanone

**Persistence and degradability** Not readily biodegradable.

#### 12.3. Bioaccumulative potential

**Bioaccumulative potential** No data available on bioaccumulation.

**Partition coefficient** No information available.

#### Ecological information on ingredients.

##### O,O',O''-(Methylsilylidyne)trioxime 2-pentanone

**Bioaccumulative potential** BCF: 3.103 L/kg, QSAR

#### 12.4. Mobility in soil



## METALSEAL 20

**Mobility** The product is insoluble in water.

### Ecological information on ingredients.

#### O,O',O''-(Methylsilyldiylidene)trioxime 2-pentanone

**Adsorption/desorption coefficient** - Koc: 20.9 @ 20°C

### 12.5. Results of PBT and vPvB assessment

**Results of PBT and vPvB assessment** This product does not contain any substances classified as PBT or vPvB.

### 12.6. Other adverse effects

**Other adverse effects** None known.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

**General information** When handling waste, the safety precautions applying to handling of the product should be considered.

**Disposal methods** Dispose of contents/container in accordance with national regulations.

**Waste class** Recommended EWC Code 08 04 10

## SECTION 14: Transport information

**General** The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

### 14.1. UN number

Not applicable.

### 14.2. UN proper shipping name

Not applicable.

### 14.3. Transport hazard class(es)

No transport warning sign required.

### 14.4. Packing group

Not applicable.

### 14.5. Environmental hazards

**Environmentally hazardous substance/marine pollutant**

No.

### 14.6. Special precautions for user

Not applicable.

### 14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

**Transport in bulk according to** Not applicable.

**Annex II of MARPOL 73/78 and the IBC Code**

## SECTION 15: Regulatory information

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

## METALSEAL 20

### National regulations

The REACH etc. (Amendment etc.) (EU Exit) Regulations 2019, UK SI 2019/758, UK SI 2019/858 and UK SI 2019/1144. The REACH etc. (Amendment etc.) (EU Exit) Regulations 2020, UK SI 2020/1577.

The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use) (Amendment etc.) (EU Exit) Regulations 2019, UK SI 2019/720. The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use) (Amendment etc.) (EU Exit) Regulations 2020, UK SI 2020/1567.

Health and Safety at Work etc. Act 1974 (as amended).

The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 (SI 2009 No. 1348) (as amended) ["CDG 2009"].

Control of Substances Hazardous to Health Regulations 2002 (as amended).

### EU legislation

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).

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 (as amended).

### Guidance

Workplace Exposure Limits EH40.

### Health and environmental listings

Diocetyl tin dilaurate is on the EU Candidate List of Substances of Very High Concern (SVHCs) for Authorisation.

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

## SECTION 16: Other information

## METALSEAL 20

<b>Abbreviations and acronyms used in the safety data sheet</b>	<p>ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.</p> <p>ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.</p> <p>ATE: Acute Toxicity Estimate.</p> <p>BCF: Bioconcentration Factor.</p> <p>CAS: Chemical Abstracts Service.</p> <p>DNEL: Derived No Effect Level.</p> <p>EC<sub>50</sub>: 50% of maximal Effective Concentration.</p> <p>GHS: Globally Harmonized System.</p> <p>IATA: International Air Transport Association.</p> <p>IBC: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk (International Bulk Chemical Code).</p> <p>ICAO: Technical Instructions for the Safe Transport of Dangerous Goods by Air.</p> <p>IMDG: International Maritime Dangerous Goods.</p> <p>Kow: Octanol-water partition coefficient.</p> <p>LC<sub>50</sub>: Lethal Concentration to 50 % of a test population.</p> <p>LD<sub>50</sub>: Lethal Dose to 50% of a test population (Median Lethal Dose).</p> <p>LOAEC: Lowest Observed Adverse Effect Concentration.</p> <p>LOAEL: Lowest Observed Adverse Effect Level.</p> <p>LOEC: Lowest Observed Effect Concentration.</p> <p>MARPOL 73/78: International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978.</p> <p>NOAEC: No Observed Adverse Effect Concentration.</p> <p>NOAEL: No Observed Adverse Effect Level.</p> <p>NOEC: No Observed Effect Concentration.</p> <p>PBT: Persistent, Bioaccumulative and Toxic substance.</p> <p>PNEC: Predicted No Effect Concentration.</p> <p>REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006.</p> <p>RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.</p> <p>SVHC: Substances of Very High Concern.</p> <p>UN: United Nations.</p> <p>vPvB: Very Persistent and Very Bioaccumulative.</p>
<b>Key literature references and sources for data</b>	SDS from supplier. Source: European Chemicals Agency, <a href="http://echa.europa.eu/">http://echa.europa.eu/</a>
<b>Revision comments</b>	Revised formulation. Revised classification.
<b>Revision date</b>	22/02/2022
<b>Revision</b>	3
<b>Supersedes date</b>	18/02/2022
<b>SDS number</b>	20337
<b>SDS status</b>	Approved.
<b>Hazard statements in full</b>	<p>H302 Harmful if swallowed.</p> <p>H304 May be fatal if swallowed and enters airways.</p> <p>H319 Causes serious eye irritation.</p>

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.