

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 23.01.2023

Version number 58 (replaces version 57)

Revision: 18.01.2023

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

1.1 Product identifier

Trade name: **MS Steel HS**

Article number: 86066

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

FOR PROFESSIONAL AND INDUSTRIAL USE ONLY

Application of the substance / the mixture **Sealer**

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:

KENT (United Kingdom) Ltd

Forsyth House

Pitreavie Drive

Pitreavie Business Park

Dunfermline

Fife

KY11 8US

Tel: +44 01383 723344 / 0800 136925 Monday - Thursday 8.30am - 5.30pm, Friday 9.00am - 3.00pm

Fax: +44 1383 620079

SDS@kenteurope.com

1.4 Emergency telephone number:

Tel: +44 01383 723344 During normal office hours - Monday - Thursday 8.30am - 5.30pm, Friday 9.00am - 3.00pm

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 The product is not classified, according to the GB CLP regulation.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 Void

Hazard pictograms Void

Signal word Void

Hazard statements Void

Additional information:

Contains trimethoxyvinylsilane. May produce an allergic reaction.

Safety data sheet available on request.

2.3 Other hazards Small amounts of methanol (CAS 67-56-1) are formed by hydrolysis and released during curing.

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Description: Mixture of the substances listed below with harmless additions.

Dangerous components:

CAS: 7429-90-5 EINECS: 231-072-3 Reg.nr.: 01-2119529243-45	aluminium powder (stabilized)	⚠ Flam. Sol. 1, H228; Water-react. 2, H261	<3%
CAS: 13822-56-5 EINECS: 237-511-5 Reg.nr.: 01-2119510159-45	3-(trimethoxysilyl)propylamine	⚠ Eye Dam. 1, H318; ⚠ Skin Irrit. 2, H315	<3%
CAS: 2768-02-7 EINECS: 220-449-8 Reg.nr.: 01-2119513215-52	trimethoxyvinylsilane	⚠ Flam. Liq. 3, H226; ⚠ Acute Tox. 4, H332; Skin Sens. 1B, H317	<1%

Additional information For the wording of the listed hazard phrases refer to section 16.

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SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **After inhalation** Supply fresh air; consult doctor in case of symptoms.
- **After skin contact**
Instantly wash with water and soap and rinse thoroughly.
Generally the product is not skin irritating.
- **After eye contact** Rinse opened eye for several minutes under running water.
- **After swallowing** Rinse out mouth and then drink plenty of water.
- **4.2 Most important symptoms and effects, both acute and 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: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents** Use fire fighting measures that suit the environment.
- **5.2 Special hazards arising from the substance or mixture**
Formation of toxic gases is possible during heating or in case of fire.
Carbon monoxide and carbon dioxide
- **5.3 Advice for firefighters**
- **Protective equipment:**
Do not inhale explosion gases or combustion gases.
Wear self-contained breathing apparatus.
- **Additional information** Collect contaminated fire fighting water separately. It must not enter drains.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** Not required.
- **6.2 Environmental precautions:** Do not allow to enter drainage system, surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- **6.4 Reference to other sections**
No dangerous materials are released.
See Section 7 for information on safe handling
See Section 8 for information on personal protection equipment.
See Section 13 for information on disposal.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling** No special measures required.
- **Information about protection against explosions and fires:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and containers:** Store in cool location.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Protect from heat and direct sunlight.
Store container in a well ventilated position.
Protect from humidity and keep away from water.
- **Storage class** 12
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **8.1 Control parameters**
- **Components with limit values that require monitoring at the workplace:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

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· DNELs**13822-56-5 3-(trimethoxysilyl)propylamine**

Dermal	Acute systemic effect	8.3 mg/kg bw/day (Worker)
	Long term systemic effect	8.3 mg/kg/dy (Worker)
Inhalative	Long term systemic effect	58 mg/m ³ /1h (Worker)
	Acute systemic effect	58 mg/m ³ (Worker)

2768-02-7 trimethoxyvinylsilane

Dermal	Long term systemic effect	3.9 mg/kg bw/day (Worker)
Inhalative	Long term systemic effect	27.6 mg/m ³ (Worker)

· PNECs**13822-56-5 3-(trimethoxysilyl)propylamine**

PNEC	0.33 mg/l (Aqua (freshwater))
	0.033 mg/l (Aqua (marine water))
	0.26 mg/kg (Freshwater sediment)
	13 mg/l (Sewage treatment plant)
	0.04 mg/kg (Soil)

2768-02-7 trimethoxyvinylsilane

PNEC	0.34 mg/l (Aqua (freshwater))
	3.4 mg/l (Aqua (intermittent))
	0.034 mg/l (Aqua (marine water))
	0.27 mg/l (Freshwater sediment)
	110 mg/l (Sewage treatment plant)
	0.046 mg/kg (Soil)

· Ingredients with biological limit values:**· Additional Occupational Exposure Limit Values for possible hazards during processing:**

Small amounts of methanol (CAS 67-56-1) are formed by hydrolysis and released during curing.

67-56-1 methanol

WEL	Short-term value: 333 mg/m ³ , 250 ppm
	Long-term value: 266 mg/m ³ , 200 ppm
	Sk

· Additional information: The lists that were valid during the compilation were used as basis.

· 8.2 Exposure controls

· Appropriate engineering controls No further data; see item 7.

· Individual protection measures, such as personal protective equipment

· General protective and hygienic measures Wash hands during breaks and at the end of the work.

· Breathing equipment: Not necessary if room is well-ventilated.

· Hand protection

Protective gloves and protective skin cream.



Protective gloves.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· Material of gloves

Wear suitable gloves tested to EN 374

Nitrile rubber, NBR

Recommended thickness of the material: ≥ 0.8 mm

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· Penetration time of glove material

Value for the permeation: Level 6 > 480 minutes

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

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· **Eye/face protection**

Safety glasses (EN 166)

· **Body protection:** Protective work clothing (EN-13034/6)

SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**· **General Information**

· Physical state	Fluid
· Colour:	Transparent
· Odour:	Mild
· Odour threshold:	Not determined.
· Melting point/freezing point:	Not determined
· Boiling point or initial boiling point and boiling range	Not determined
· Flammability	Not applicable.
· Lower and upper explosion limit	
· Lower:	Not determined.
· Upper:	Not determined.
· Flash point:	Not applicable
· Decomposition temperature:	Not determined.
· pH	Mixture is non-polar/aprotic.
· Viscosity:	
· Kinematic viscosity	Not determined.
· dynamic:	Not determined.
· Solubility	
· Water:	Not miscible / difficult to mix
· Partition coefficient n-octanol/water (log value)	Not determined.
· Vapour pressure:	Not determined.
· Density and/or relative density	
· Density at 20 °C	1.100 g/cm ³
· Relative density	Not determined.
· Vapour density	Not determined.

· **9.2 Other information**

· Appearance:	
· Form:	Pasty
· Important information on protection of health and environment, and on safety.	
· Self-inflammability:	Product is not selfigniting.
· Explosive properties:	Product is not explosive.
· Solvent content:	
· Organic solvents:	NIL VOC
· Change in condition	
· Evaporation rate	Not determined.

· **Information with regard to physical hazard classes**

· Explosives	Void
· Flammable gases	Void
· Aerosols	Void
· Oxidising gases	Void
· Gases under pressure	Void
· Flammable liquids	Void
· Flammable solids	Void
· Self-reactive substances and mixtures	Void
· Pyrophoric liquids	Void
· Pyrophoric solids	Void
· Self-heating substances and mixtures	Void

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- | | |
|--|------|
| · Substances and mixtures, which emit flammable gases in contact with water | Void |
| · Oxidising liquids | Void |
| · Oxidising solids | Void |
| · Organic peroxides | Void |
| · Corrosive to metals | Void |
| · Desensitised explosives | Void |

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known

SECTION 11: Toxicological information

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
- **Acute toxicity** Based on available data, the classification criteria are not met.

- **LD/LC50 values that are relevant for classification:**

13822-56-5 3-(trimethoxysilyl)propylamine		
	OECD 437	<3 (Bovine Cornea) (OCED Test No. 437)
2768-02-7 trimethoxyvinylsilane		
Oral	LD50	7,120 mg/kg (Rat)
Sensitisation	OECD Test No. 406	Not a skin sensitiser (Guinea pig)
	OECD Test No. 405	(Rabbit) (Acute Eye irritation / corrosion: Non irritant)

- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation**
No classification is proposed, based on conclusive negative data. By analogy to another tested similar product:
No irritation after contact to the eyes. (H319 is void).
3-(trimethoxysilyl)propylamine CAS 13822-56-5
OECD 437 Bovine Corneal Opacity and Permeability (BCOP) test
Corneal / Bovine / Exposure time 10 mins; Product score <3 Non-irritant
Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation**
OECD Test No. 406: Skin Sensitisation. No sensitisation responses were observed. No classification is proposed, based on conclusive negative data.
May cause sensitisation in susceptible persons.
Trimethoxyvinylsilane CAS 2768-02-7
OECD Test No. 406 Skin sensitisation
Dermal / Guinea pig: Not a skin sensitiser
Based on available data, the classification criteria are not met.
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

- **11.2 Information on other hazards**

- **Endocrine disrupting properties**

870-08-6 dioctyltin oxide

List II

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SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity:

7429-90-5 aluminium powder (stabilized)

LC50 (96 hr) 12 mg/l (Fish) (Rainbow trout)

13822-56-5 3-(trimethoxysilyl)propylamine

EC50 (48 hr) 331 mg/l (Daphnia magna) (OECD 202)

EC50 (72 hr) >1,000 mg/l (Desmodesmus subspicatus) (EU Method C.3 (Algal Inhibition test))

LC50 (96 hr) >934 mg/l (Danio rerio (Zebra fish; semistatic)) (OECD 203)

2768-02-7 trimethoxyvinylsilane

EC10 1,000 (Pseudomonas Putida) (5 hours)

EC50 (48 hr) 169 mg/l (Daphnia magna)

EC50 (72 hr) 210 mg/l (Selenastrum capricornutum)

>957 mg/l (Desmodesmus subspicatus) (EU Method C.3)

LC50 (96 hr) 191 mg/l (Oncorhynchus mykiss)

NOEC (72 hr) 25 mg/l (Selenastrum capricornutum)

NOEC (21 days) 28 mg/l (Daphnia magna) (Reproduction)

12.2 Persistence and degradability No further relevant information available.

12.3 Bioaccumulative potential No further relevant information available.

12.4 Mobility in soil No further relevant information available.

12.5 Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

12.6 Endocrine disrupting properties For information on endocrine disrupting properties see section 11.

12.7 Other adverse effects

Additional ecological information:

General notes:

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water.

Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Recommendation Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

Uncleaned packagings:

Recommendation: Disposal must be made according to official regulations.

SECTION 14: Transport information

14.1 UN number or ID number

ADR, ADN, IMDG, IATA Void

14.2 UN proper shipping name

ADR, ADN, IMDG, IATA Void

14.3 Transport hazard class(es)

ADR, ADN, IMDG, IATA

Class Void

14.4 Packing group

ADR, IMDG, IATA Void

14.5 Environmental hazards:

Marine pollutant: No

14.6 Special precautions for user

Not applicable.

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14.7 Maritime transport in bulk according to IMO instruments

Not applicable.

Transport/Additional information:

Not dangerous according to the above specifications.

UN "Model Regulation":

Void

SECTION 15: Regulatory information

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

Directive 2012/18/EU

Named dangerous substances - ANNEX I None of the ingredients is listed.

National regulations

Water hazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.

15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Relevant phrases

H226 Flammable liquid and vapour.

H228 Flammable solid.

H261 In contact with water releases flammable gases.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H332 Harmful if inhaled.

Department issuing data specification sheet: Environment protection department

Abbreviations and acronyms:

RID: (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation

ADR: European Agreement Concerning the International Carriage of Dangerous Goods by Road

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

DNEL: Derived No-Effect Level (UK REACH)

PNEC: Predicted No-Effect Concentration (UK REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 3: Flammable liquids – Category 3

Flam. Sol. 1: Flammable solids – Category 1

Water-react. 2: Substances and mixtures which in contact with water emit flammable gases – Category 2

Acute Tox. 4: Acute toxicity – Category 4

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Dam. 1: Serious eye damage/eye irritation – Category 1

Skin Sens. 1B: Skin sensitisation – Category 1B

Data compared to the previous version altered. *