

Product Metal Shield
 Revision date 01 October 2018
 Revision 1



Safety Data Sheet (SDS)

Section 1: Identification of the substance/preparation and of the company/undertaking

1.1 Product identifier

Product name Metal Shield
Synonyms, Trade names No information available.

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

Identified uses Paint or paint related material. For industrial use.
Uses advised against Any other purpose.

1.3 Details of the supplier of the safety data sheet

Supplier FSW Coatings Ltd
 Virginia
 Co Cavan
 Ireland
 Tel: 353 49854 7209
Contact person info@fsw.ie

1.4 Emergency telephone number

Emergency telephone + 353 49854 7209 (Between 0900 and 1700 hrs Monday-Friday)

Section 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (EC 1272/2008)
 Physical and chemical hazards Flam. Liq 3 - H226
 Human health STOT SE 3 - H336
 Environment Aquatic Chronic 3 - H412

2.2 Label elements

Contains Not applicable

Label in accordance with (EC) no. 1272/2008



Signal word Warning

Hazard statements H226 Flammable liquid and vapour.
 H336 May cause drowsiness or dizziness.
 H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

Prevention

P240 Ground/bond container and receiving equipment.
 P243 Take precautionary measures against static discharge.
 P261 Avoid breathing dust/fume/ gas/mist/vapours/spray.
 P271 Use only outdoors or in a well-ventilated area.

Response

P312 Call a POISON CENTER or doctor/physician if you feel unwell.

Storage

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

2.3 Other hazards

None known.

Section 3: Composition/identification of ingredients

3.1 Substance

Not applicable.

3.2 Mixtures

Name	Product identifier	Reg. EU 1272/2008	%
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics	CAS-No.: EC No.: 919-857-5	Asp. Tox - H304, Flam. Liq 3- H226, STOT SE 3 - H336	30-60%
titanium dioxide	CAS-No.: 13463-67-7 EC No.: 236-675-5 REACH Reg No.: 01-2119489379-17-0002		10-30%
1-methoxy-2-propanol monopropylene glycol methyl ether	CAS-No.: 107-98-2 EC No.: 203-539-1	Flam. Liq 3- H226, STOT SE 3 - H336	1-10%
Hydrocarbons, C9-C12, n-Alkanes, Isoalkanes, Cyclics, Aromatics (5-25%) / Naphtha (petroleum), hydrodesulfurized heavy (benzene < 0,1 %)	CAS-No.: 64742-82-1 EC No.: 919-446-0 REACH Reg No.: 01-2119458049-33	STOT SE 3 - H336, Asp. Tox - H304, Flam. Liq 3- H226, Aquatic Chronic 2 - H411	1-10%
2-butanone oxime ethyl methyl ketoxime ethyl methyl ketone oxime	CAS-No.: 96-29-7 EC No.: 202-496-6	Acute Tox 4 - H312, Skin. Sens 1 - H317, Eye Dam. 1 - H318, Carc. 2 - H351	0-1%
2-ethylhexanoic acid, zirconium salt	CAS-No.: 22464-99-9 EC No.: 245-018-1	Repr. 2 - H361d	0-1%
naphthalene	CAS-No.: 91-20-3 EC No.: 202-049-5	Acute Tox 4 - H302, Carc. 2 - H351, Aquatic Acute 1 - H400, Aquatic Chronic 1 - H410	0-1%
nonane	CAS-No.: 111-84-2 EC No.: 203-913-4	Aquatic Chronic 1 - H410, Skin Irrit.2 - H315, Asp. Tox - H304, Flam. Liq 3- H226, STOT SE 3 - H336	0-1%
dodecane-1-thiol	CAS-No.: 112-55-0 EC No.: 203-984-1	Skin Corr. 1C - H314, Skin. Sens 1 A- H317, Aquatic Chronic 1 - H410	0-1%
Nonane	CAS-No.: 111-84-2 EC No.: 203-913-4	Acute Tox 4 - H332, Flam. Liq 3- H226	0-1%
Propionic acid	CAS-No.: 79-09-4 EC No.: 201-176-3	Skin Corr. 1B - H314, Eye Dam. 1 - H318, STOT SE 3 - H335, Flam. Liq 3- H226	0-1%
octane n-octane	CAS-No.: 111-65-9 EC No.: 203-892-1	Flam. Liq 2- H225, Asp. Tox - H304, Skin Irrit.2 - H315, STOT SE 3 - H336, Aquatic Acute 1 - H400, Aquatic Chronic 1 - H410	0-1%

The full text for all hazard statements are displayed in section 16.

Composition comments

The data shown are in accordance with the latest EC Directives.

Section 4: First aid measures

4.1 Description of first aid measures

General information

Provide general first aid, rest, warmth and fresh air. As a general rule, in case of doubt or if symptoms persist, always call a doctor. Seek medical attention for all eye injuries, regardless how minor they may seem. First aid personnel must be aware of own risk during rescue.

Inhalation

If this product is inhaled and symptoms occur, move the exposed person to fresh air promptly. If breathing is difficult, give oxygen. If breathing has stopped or the exposed person experiences difficulty in breathing, administer artificial respiration and seek immediate medical assistance.

Ingestion

Rinse mouth thoroughly. Provide fresh air, warmth and rest. Do not induce vomiting. Never give anything by mouth if victim is unconscious, is rapidly losing consciousness or is convulsing. Seek medical advice (show the label where possible). If vomiting occurs, the head should be kept low so that stomach content doesn't enter the lungs.

Skin contact

Remove affected person from source of contamination. Remove contaminated clothing. Wash the skin immediately with soap and water. Get medical attention if any discomfort continues after rinsing.

Eye contact

Do not rub eye. Avoid contaminating unaffected eye. Remove contact lenses if present and

easy to do so. Promptly wash eye(s) with plenty of water while lifting the eye lids. Rinse with a gentle stream water for at least 15 minutes. Get prompt medical attention.

4.2 Most important symptoms and effects, both acute and delayed

General information	The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
Inhalation	Exposure to product spray mists may be irritating to the respiratory system. Inhalation of vapours may cause headache, fatigue, dizziness and central nervous system effects.
Ingestion	May cause discomfort if swallowed. May cause stomach pain or vomiting.
Skin contact	Prolonged contact may cause redness, irritation and dry skin.
Eye contact	May cause irritation of eyes.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to the physician	Treat symptomatically.
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Section 5: Fire-fighting measures

5.1 Extinguishing media

Extinguishing media	Use fire-extinguishing media appropriate for surrounding materials. Extinguish with foam, carbon dioxide, dry powder or water fog.
Unsuitable extinguishing media	Do not use water jet to extinguish fire.

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products	Combustion may lead to the release of harmful vapours, including but not limited to oxides of carbon.
Unusual fire & explosion hazards	The product is classified as a flammable liquid and vapour. Vapours are heavier than air and may spread near ground to sources of ignition. Do not allow to enter drains, sewers, basements and workpits, or any place where its accumulation can be dangerous.
Specific hazards	Vapours may be ignited by a spark, a hot surface or an ember. Flash back possible over considerable distance.

5.3 Advice for firefighters

Special fire fighting procedures	Ventilate closed spaces before entering them. Water spray should be used to cool containers. If possible, fight fire from protected position. Keep up-wind to avoid fumes.
Protective equipment for firefighters	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

Section 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions	Provide adequate ventilation. In case of inadequate ventilation, use respiratory protection. Wear protective clothing as described in Section 8 of this safety data sheet. If necessary evacuate surrounding areas. Eliminate all sources of ignition. Avoid inhalation of vapours and contact with skin and eyes. Use non-sparking hand tools and explosion proof electrical equipment. Do not touch or walk through spilled material. Read and follow manufacturer's recommendations. Do not smoke, eat or drink while using this product.
For emergency responders	Follow safe handling advice and personal protective equipment recommendations for normal use of product.

6.2 Environmental precautions

Environmental precautions	Prevent any material from entering drains or waterways.
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6.3 Methods and material for containment and cleaning up

Spill clean up methods	Prevent further leakage or spillage if safe to do so. Ventilate and evacuate the area. Eliminate all sources of ignition. Wear necessary protective equipment. Dam and absorb spillage using a spill kit, sand, earth or other non-combustible material. Prevent entry to into
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sewers, water course, basement or confined areas. Use non sparking tools or equipment. Recover by pumping or with suitable absorbent. Place spilled material into suitable labelled sealed containers. Remove waste promptly to a safe area.

6.4 Reference to other sections

Reference to other sections

See section 1 for emergency contact. For personal protection, see section 8. For waste disposal, see section 13.

Section 7: Handling and storage

7.1 Precautions for safe handling

Handling

Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Wear suitable personal protective equipment, as detailed in Section 8. Keep away from heat, sparks and open flame. Formation of sparks and static electricity must be prevented. Earth all equipment. Use only non-sparking tools. Read and follow manufacturer's recommendations. Keep container tightly closed.

7.2 Conditions for safe storage, including any incompatibilities

Storage precautions

Store in tightly closed original container in a cool, dry and well-ventilated place. Keep upright, locked up and out of reach of children. Keep away from incompatible materials (see section 10). Protect against static discharge and keep away from sources of ignition.

Storage class

Flammable liquid storage.

7.3 Specific end use(s)

Specific end use(s)

The identified uses for this product are detailed in Section 1.2.

Usage description

Use only according to directions. Replace and tighten cap after use.

Section 8: Exposure controls/Personal protection

8.1 Control parameters

Component	STD	TWA (8 Hrs)		STEL (15mins)		Notes
titanium dioxide	OEL		10 mg/m ³			
titanium dioxide	OEL		4 mg/m ³			
1-methoxy-2-propanol monopropylene glycol methyl ether	OEL	100 ppm	375 mg/m ³	150 ppm	568 mg/m ³	
2-butanone oxime ethyl methyl ketoxime ethyl methyl ketone oxime	OEL	3 ppm	10 mg/m ³	10 ppm	33 mg/m ³	
naphthalene	OEL	10 ppm	50 mg/m ³	15 ppm	75 mg/m ³	
nonane	OEL	200 ppm	1050 mg/m ³			
dodecane-1-thiol	OEL	0.1 ppm				
Nonane	OEL	200 ppm	1050 mg/m ³			
Propionic acid	OEL	10 ppm	31 mg/m ³	20 ppm	62 mg/m ³	
octane n-octane	OEL	300 ppm	1450 mg/m ³			

Ingredient comments

Ireland, Occupational Exposure Limits 2018.

8.2 Exposure Controls

Protective equipment



Engineering measures

Provide adequate ventilation, including appropriate local extraction, to ensure that the defined occupational exposure limit is not exceeded. Where necessary use lighting and electrical equipment designed for use in atmospheres where flammable vapours are present.

Respiratory equipment	Where risk assessment shows air-purifying respirators are appropriate a full face respirator conforming to EN 143 should be used, and suitable respirator cartridges as a backup to engineering controls. The specific respirator selected must be based on contamination levels found in the work place. Use respiratory protection as specified by qualified professional if concentrations exceed the limits listed in Section 8. Use respiratory equipment with gas filter, type A: organic vapours (EN141). Consult manufacturer for specific advice.
Hand protection	Where hand contact with the product may occur the use of gloves approved to relevant standards (e.g. Europe: EN374) is recommended. Use chemical resistant gloves to minimize skin contact. Gloves must be inspected prior to use. Suggested material: Nitrile rubber. Break through time: 480 min. Layer thickness: 0.33 mm. Consult manufacturer for advice. Selection of the glove material depends on consideration of the penetration times, rates of diffusion and degradation, and concentration specific to the workplace. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices.
Eye protection	Wear safety goggles to prevent any possibility of eye contact. Use equipment for eye protection tested and approved under appropriate government standards such as EN 166(EU).
Other protection	Complete suit protecting against chemicals, flame retardant/anti-static.
Hygiene measures	Observe normal hygiene standards. DO NOT SMOKE! Wash hands after use. Wash promptly if skin becomes contaminated. When using do not eat, drink or smoke.
Process conditions	Ensure that eye flushing systems and safety showers are located close by in the work place.

Section 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	Viscous liquid.
Colour	Various.
Odour	Slight solvent smell.
Odour threshold - lower	No information available.
Odour threshold - upper	No information available.
pH-Value, Conc. Solution	No information available.
pH-Value, Diluted solution	No information available.
Melting point	No information available.
Initial boiling point and boiling range	No information available.
Flash point	Closed cup: 400C
Evaporation rate	No information available.
Flammability state	No information available.
Flammability limit - lower(%)	Lower: 1.48%
Flammability limit - upper(%)	Upper: 13.74%
Vapour pressure	No information available.
Vapour density (air=1)	Highest known value: 1.1 kPa (8.5 mm Hg) (at 20°C)
Relative density	1.10 g/l
Bulk density	No information available.
Solubility	No information available.
Decomposition temperature	No information available.
Partition coefficient; n-Octanol/Water	No information available.
Auto ignition temperature (°C)	Lowest known value: 270°C

Viscosity	Kinematic (25°C): = 5.63 cm ² /s
Explosive properties	No information available.
Oxidising properties	No information available.

9.2 Other information

Molecular weight	No information available.
Volatile organic compound	415.00 g/litre
Other information	None noted.

Section 10: Stability and reactivity**10.1 Reactivity**

Reactivity	Stable under recommended transport and storage conditions and under recommended use.
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10.2 Chemical stability

Stability	Stable under normal temperature conditions and recommended use.
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10.3 Possibility of hazardous reactions

Hazardous reactions	Avoid contact with oxidising agents, strong alkalis, and strong acids.
Hazardous polymerisation	No information available.
Polymerisation description	Unknown.

10.4 Conditions to Avoid

Conditions to avoid	Heat, sparks, open flames, temperature extremes and direct sunlight.
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10.5 Incompatible materials

Materials to avoid	Avoid contact with oxidising agents, strong alkalis, and strong acids.
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10.6 Hazardous decomposition products

Hazardous decomposition products	Thermal decomposition or combustion may liberate carbon oxides and other harmful gases or vapors.
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Section 11: Toxicological information**11.1 Information on toxicological effects**

Toxicological information	No toxicological information for the overall finished product.
Acute toxicity (Oral LD50)	No information available.
Acute toxicity (Dermal LD50)	No information available.
Acute toxicity (Inhalation LD50)	No information available.
Serious eye damage/irritation	No information.
Skin corrosion/irritation	No information available.
Respiratory sensitisation	No information available.
Skin sensitisation	No information available.
Germ cell mutagenicity	No information available.
Carcinogenicity	No information available.
Specific target organ toxicity - Single exposure:	
STOT - Single exposure	No information available.
Specific target organ toxicity - Repeated exposure:	

STOT - Repeated exposure	No information available.
Inhalation	Exposure to product spray mists may be irritating to the respiratory system. Inhalation of vapours may cause headache, fatigue, dizziness and central nervous system effects.
Ingestion	May cause discomfort if swallowed. May cause stomach pain or vomiting.
Skin contact	Prolonged contact may cause redness, irritation and dry skin.
Eye contact	May cause irritation of eyes.
Waste management	Contaminated packaging should be disposed of according to local authority guidelines. Empty containers retain residue (liquid and/or vapour) and can be dangerous. Do not burn. When handling waste, consideration should be made to the safety precautions applying to handling of the product.
Routes of entry	No information available.
Target organs	Respiratory system, lungs.
Aspiration hazards:	No information available.
Reproductive toxicity:	No information available.

Section 12: Ecological information

12.1 Toxicity

Acute toxicity - Fish	No information available.
Acute toxicity - Aquatic invertebrates	No information available.
Acute toxicity - Aquatic plants	No information available.
Acute toxicity - Microorganisms	No information available.
Chronic toxicity - Fish	No information available.
Chronic toxicity - Aquatic invertebrates	No information available.
Chronic toxicity - Aquatic plants	No information available.
Chronic toxicity - Microorganisms	No information available.
Ecotoxicity	No Ecological information on the finished product.
Eco toxicological information	No information.

12.2 Persistence and degradability

Degradability	The degradability of the product has not been stated.
Biological oxygen demand	No information available.
Chemical oxygen demand	No information available.

12.3 Bioaccumulative potential

Bioaccumulative potential	No data available on bioaccumulation.
Bioaccumulation factor	No information available.
Partition coefficient; n-Octanol/Water	No information available.

12.4 Mobility in soil

Mobility	No information available.
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12.5 Results of PBT and vPvB assessment

Results of PBT and vPvB assessment	Product is not identified as PBT or vPvB.
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12.6 Other adverse effects

Other adverse effects	None known.
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Section 13: Disposal considerations

Waste management	Contaminated packaging should be disposed of according to local authority guidelines. Empty containers retain residue (liquid and/or vapour) and can be dangerous. Do not burn. When handling waste, consideration should be made to the safety precautions applying to
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handling of the product.

13.1 Waste treatment methods

Disposal methods

Dispose of waste and residues in accordance with local authority requirements. For waste disposal, use a licensed industrial waste disposal agent.

Section 14: Transport information

14.1 UN number

UN no. (ADR)	UN1263
UN no. (IMDG)	UN1263
UN no. (IATA)	UN1263

14.2 UN proper shipping name

ADR proper shipping name	PAINT or PAINT RELATED MATERIAL
IMDG proper shipping name	PAINT or PAINT RELATED MATERIAL
IATA proper shipping name	PAINT

14.3 Transport hazard class(es)

ADR class	3
IMDG class	3
IATA class	3

Transport labels



14.4 Packing group

ADR/RID/ADN packing group	III
IMDG packing group	III
IATA packing group	III

14.5 Environmental hazards

ADR	No
IMDG	No
IATA	No

14.6 Special precautions for user

EMS	F-E, S-E
Emergency action code	A3 A72 A192
Hazard no. (ADR)	30
Tunnel restriction code	(D/E)

14.7 Transport in bulk according to annex II of MARPOL73/78 and the IBC code

Not applicable.

Section 15: Regulatory information

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

EU legislation	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 with amendments. The UN Globally Harmonized System (GHS) Safety Data Sheet format (Annex IV) is implemented as Annex II of REACH EU No 453/2010 of 20th May 2010 amending regulation (EC) No 1907/2006.
Approved code of practice	2018 Code of Practice for the Chemical Agents Regulations in accordance with section 60 of the Safety, Health and Welfare at Work Act 2005 (No. 10 of 2005).

Chemical safety assessment No chemical safety assessment has been carried out.

Section 16: Other information

General information	This Safety Data Sheet is in accordance with Reach Regulation (EC) No 453/2010
Revision comments	This is a first issue.
Revision date	01 October 2018
Revision	1
Safety data sheet status	Approved.

Hazard statements in full

EUH066	Repeated exposure may cause skin dryness or cracking.
H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic life with long lasting effects.
H312	Harmful in contact with skin.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H351	Suspected of causing cancer .
H361	Suspected of damaging fertility or the unborn child .
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H302	Harmful if swallowed.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H360	May damage fertility or the unborn child .
H314	Causes severe skin burns and eye damage.
H332	Harmful if inhaled.
H225	Highly flammable liquid and vapour.
H412	Harmful to aquatic life with long lasting effects.

Disclaimer

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.