

SAFETY DATA SHEET (SDS)

SDS Compliant with REACH Regulation (EC) No 1907/2006 – N° 453/2010

MIRROR+ PRIMER

Version No. 1

Revision Date: 10/11/2015

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SECTION 1. IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY UNDERTAKING

1.1. Product identifier.	Product Name: Mirror+ Primer	
1.2. Relevant identified uses of the substance or mixture and uses advised against.	Identified uses: Surface preparation of mirror safety backing prior to bonding with Mirror+ Primer. Uses advised against: Any other uses other than the advised purpose.	
1.3. Details of the supplier of the datasheet.	Hodgson Sealants (Holdings) Limited Belprin Road Beverley East Yorkshire HU17 0LN	Tel: + 44 (0)1482 868321 Fax: + 44 (0)1482 679337 E-mail: SDS@hodgsonsealants.com
1.4. Emergency Phone Number (UK Office Hours Only: 9am to 5pm)	Tel: + 44 (0)1482 868321 E-mail: SDS@hodgsonsealants.com	

SECTION 2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture. <u>Classification according to regulation (EC) No 1272/2008 [CLP].</u>	Hazardous to the aquatic environment chronic, category 2 Aspiration hazard Category 1 Specific target organ toxicity (single exposure) Category 3 (narcotic effects) Reproductive toxicity Category 2 (developmental toxicity) Serious eye damage / eye irritation Category 1 Skin corrosion/irritation Category 2 Flammable liquids Category 2
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2.2. Label elements.

Classification according to regulation (EC) No 1272/2008 [CLP].



Signal word; **DANGER**

Hazard Statements;

- H225 Highly flammable liquid and vapour.
- H304 May be fatal if swallowed and enters airways.
- H315 Causes skin irritation.
- H318 Causes serious eye damage.
- H336 May cause drowsiness and dizziness.
- H361d Suspected of damaging the unborn child.
- H411 Toxic to aquatic life with long lasting effects.

Precautionary Statements

- P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
- P233 Keep container tightly closed.
- P243 Take precautionary measures against static discharge.
- P271 Use only outdoors or in a well-ventilated area.
- P280 Wear protective gloves/protective clothing/eye protection.
- P273 Avoid release to the environment.
- P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
- P310 Immediately call a POISON CENTER or doctor/physician.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P310 Immediately call a POISON CENTER or doctor/physician.
- P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P312 Call a POISON CENTER or doctor/physician if you feel unwell.
- P391 Collect spillage.
- P302+P352 IF ON SKIN: Wash with plenty of soap and water.
- P332+P313 If skin irritation occurs: Get medical advice/ attention.
- P370+P378 In case of fire: Use extinguishing powder, alcohol-resistant foam or carbon dioxide for extinction.
- P403+P235 Store in a well-ventilated place. Keep cool.
- P501 Dispose of contents/container to waste disposal. □

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3. COMPOSITION / INFORMATION ON INGREDIENTS

3.2 Chemical Characterisation: Mixtures

Description of mixture: Silane and siloxane with functional groups, auxiliary and solvent carrier.

Hazardous ingredients:

Name	CAS No.	EC No.	REACH Registration No.	% (weight)	Classification according to Regulation (EC) No 1278/2008 (CLP).
C7 - C10 Isoalkanes	90622-56-3	292-458-5	01-2119471305-42	>75	Aquatic Chronic 2; H411 Asp. Tox. 1; H304 STOT SE 3; H336 Flam. Liq. 2; H225 Skin Irrit. 2; H315
Titanium tetrabutanolate	5593-70-4	227-006-8	-	<10	Skin Irrit. 2; H315 Flam. Liq. 3; H226 Eye Dam. 1; H318
Toluene	108-88-3	203-625-9	01-2119471310-51	<5	Repr. 2; H361d STOT RE 2; H373 STOT SE 3; H336 Skin Irrit. 2; H315 Asp. Tox. 1; H304 Flam. Liq. 2; H225 Flam. Liq. 3; H226
Tetraethyl silicate	78-10-4	201-083-8	01-2119496195-28	<2	Acute Tox. 4 by inhalation; H332 Eye Irrit. 2; H319 STOT SE 3; H335

4. FIRST AID MEASURES

4.1. Description of first aid measures

Following inhalation:

Move to fresh air, keep the victim laying down and restful. If breathing has stopped, give artificial respiration. Seek medical advice and clearly identify substance. Administer oxygen in case of breathing difficulties. If unconscious place in stable sideways position.

Following skin contact:

Wash with plenty of water or soap and water; immediately remove all contaminated clothing. Seek medical advice and clearly identify substance.

Following eye contact:

Rinse immediately with plenty of water for 10-15 minutes and seek medical advice.

Following ingestion:

Seek medical advice and clearly identify substance. Do not induce vomiting. Danger of aspiration.

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

No data available

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

No data available

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5. FIREFIGHTING MEASURES

5.1. Extinguishing media Suitable extinguishing media;	Extinguishing powder , alcohol-resistant foam , carbon dioxide.
Unsuitable extinguishing media;	Water
5.2. Special hazards arising from the substance or mixture Hazardous combustion products;	Heavy soot formation during combustion.
5.3. Advice for firefighters	Use respiratory protection independent of re-circulated air.

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures	Keep unprotected persons away. Wear personal protection equipment (see section 8). Avoid inhaling mists and vapours. Avoid contact with eyes and skin.
6.2. Environmental precautions	Prevent material from entering sewers or surface waters. Inform authorities if substance leaks into surface waters, sewerage or ground. Contain any fluid that runs out using suitable material (e.g. earth). Retain contaminated water/extinguishing water. Dispose of in prescribed marked containers.
6.3. Methods and material for containment and cleaning up	Take up mechanically and dispose of according to local/state/federal regulations. Absorb with a liquid binding material such as diatomaceous earth and dispose of according to local/state/federal regulations. Contain larger amounts and pump up into suitable containers.
6.3.3. Other information:	Eliminate all sources of ignition.
6.4. Reference to other sections	Relevant information in other sections have to be considered. This applies in particular for information given on personal protective equipment (section 8) and on disposal (section 13).

7. HANDLING AND STORAGE

7.1. Precautions for safe handling	Ensure adequate ventilation. Must be syphoned off in situ. Keep away from incompatible substances in accordance with section 10.
7.1.1 Precautions against fire and explosion	Cool endangered containers with water. Flammable vapours may accumulate and form explosive mixtures with air in containers, process vessels, including partial, empty and uncleaned containers and vessels, or other enclosed spaces. Keep away from sources of ignition and do not smoke. Take precautionary measures against electrostatic charging.
7.2. Conditions for safe storage, including any incompatibilities	Make sure there is no possibility of entering the ground.
7.3. Specific end use(s).	Surface preparation of low surface energy materials prior to bonding.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Control parameters

Maximum airborne concentrations at the workplace:

Name	CAS No.	Type	Mg/m ³	ppm
Toluene	108-88-3	OEL	191.0	50.0
Tetraethyl silicate	78-10-4	OEL	87.0	10.0
1-Butanol	71-36-3	OEL	-	-
Ethanol	64-17-5	OEL	1920.0	1000.0

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Derived No-Effect Level (DNEL); Tetraethyl silicate.

Area of use	Value
Worker; dermal; systemic (acute)	12,1 mg/kg/day
Worker; dermal; systemic (long term)	12,1 mg/kg/day
Worker; by inhalation; systemic (acute)	85 mg/m ³
Worker; by inhalation; local (acute)	85 mg/m ³
Worker; by inhalation; systemic (long term)	85 mg/m ³
Worker; by inhalation; local (long term)	85 mg/m ³
Consumer; dermal; systemic (acute)	8,4 mg/kg/day
Consumer; dermal; systemic (long term)	8,4 mg/kg/day
Consumer; by inhalation; systemic (acute)	25 mg/m ³
Consumer; by inhalation; local (acute)	25 mg/m ³
Consumer; by inhalation; systemic (long term)	25 mg/m ³
Consumer; by inhalation; local (long term)	25 mg/m ³

Predicted No Effect Concentration (PNEC); Tetraethyl silicate.

Area of use	Value
Freshwater	0,192 mg/l. The value has been derived for the following hydrolysis product: ethanol.
Marine water	0,0192 mg/l. The value has been derived for the following hydrolysis product: ethanol.
Sediment (freshwater)	0,18 mg/kg wet weight. The value has been derived for the following hydrolysis product: ethanol.
Sediment (marine water)	0,018 mg/kg wet weight. The value has been derived for the following hydrolysis product: ethanol.
Soil	0,05 mg/kg wet weight. The value has been derived for the following hydrolysis product: ethanol.
Sewage treatment plant	4000 mg/l. The value has been derived for the following hydrolysis product: Ethanol.
Intermittent release	10 mg/l. The value has been derived for the following hydrolysis product: ethanol.

8.2. Exposure control

8.2.1. Appropriate engineering controls

Not applicable

8.2.2. Personal protection equipment

8.2.2.1. Eye face protection

Protective goggles .

8.2.2.2. Skin protection

Nitrile rubber protective gloves , protective gloves made of fluorinated rubber . Gloves suitable for up to 60 minutes' use.

8.2.2.3. Respiratory protection:

In case of long or strong exposure: gas mask filter A .

8.2.3. Environmental exposure controls

Refer to section 6 & 12.

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9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance: Liquid.

Odour: Solvent.

Odour Threshold: N/a

Colour: Clear to yellowish.

PH: 6-8

Melting point / freezing point: No data available

Initial boiling point and boiling range: 116-142°C

Flash point: 9°C

Evaporation rate: No data available

Flammability (solid, gas): No data available

Upper / lower flammability or explosive limits: LEL:0,9 Vol-%. UEL:7.0 Vol-%

Vapour pressure: 50 hPa @ 25°C

Vapour density: No data available

Relative Density: 0.76g/cm³ @ 20°C

Solubility: No data available

Partition coefficient: n-octanol / water: No data available

Auto-ignition temperature: 420°C

Decomposition temperature: No data available

Viscosity (dynamic): 0.76 mPa.s

Explosive properties: Explosion limits for released ethanol: 3.5 - 15%(V).

Oxidising: No data available

9.2 Other Information: No data available.

10. STABILITY AND REACTIVITY

10.1 Reactivity

10.1.1

If stored and handled in accordance with standard industrial practices no hazardous reactions are known. Relevant information can possibly be found in other parts of this section.

10.1.2

Not applicable

10.2 Chemical stability

Stable at room temperature

10.3 Possibility of Hazardous Reactions

Non known

10.4 Conditions to Avoid

Moisture

10.5 Incompatible Materials

Reacts with: acids , water and alkalis . Reaction causes the formation of: alcohols .

10.6 Hazardous decomposition products

If stored and handled properly: none known . Under the effect of humidity: n-butanol , ethanol .

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11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity:

Assessment:

For this endpoint no toxicological test data is available for the whole product.

Acute toxicity estimate (ATE):

ATEmix (oral): > 5000 mg/kg

Irritation:

Prolonged contact may defat and dry the skin leading to possible irritation and dermatitis.

Corrosivity:

Not applicable.

Sensitisation:

Not applicable

Repeated dose toxicity:

Not applicable.

Carcinogenicity:

Not applicable

Mutagenicity:

Not applicable.

Toxicity for reproduction:

Not applicable

Further toxicological information:

Organic solvent(s): According to literature aliphatic hydrocarbons are slightly irritating to the skin and mucous membranes and have a skin drying and narcotic effect. If the lungs are directly affected (e.g. by aspiration), inflammation of the lungs may occur. Toluene (108-88-3) irritates the mucous membranes, slightly irritates the skin and is narcotic. If the lung tissue is directly affected, inflammation of the lung may occur. Kidney and bone marrow damage were described. Product(s) of hydrolysis: According to documentation n-butanol (71-36-3) is irritating to mucous membranes, slightly irritating to skin, degreases skin, has narcotic effects. According to literature, ethanol (67-17-5) irritates the mucous membranes, slightly irritates the skin, degreases the skin, is narcotic and may cause liver damage.

12. ECOLOGICAL INFORMATION

12.1. Toxicity:

No data known

12.2. Persistence and degradability:

No data known

12.3. Bioaccumulative potential:

Bioaccumulation is not expected to occur.

12.4. Mobility in soil:

No data known

12.5. Results of PBT and vPvB testing:

This product contains no relevant substances considered to be persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB).

12.6. Other adverse effects:

None known

12.7. Additional information:

None Known

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13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods: Recommendation: Dispose of according to regulations by incineration in a special waste incinerator. Observe local/state/federal regulations.

13.1.1. Product / packaging disposal: Recommendation: Completely discharge containers (no tear drops, no powder rest, scraped carefully). Uncleaned packaging should be treated with the same precautions as the material.

14. TRANSPORT INFORMATION

Road ADR

Railway RID

Sea - IMDG Code

Air – ICAO-TI/IATA-DGR

	Road ADR	Railway RID	Sea - IMDG Code	Air – ICAO-TI/IATA-DGR
14.1. UN Number	1993	1993	1993	1993
14.2. UN proper shipping name	Flammable liquid, NOS (contains C7-C10 Isoalkanes)	Flammable liquid, NOS (contains C7-C10 Isoalkanes)	Flammable liquid, NOS (contains C7-C10 Isoalkanes)	Flammable liquid, NOS (contains C7-C10 Isoalkanes)
14.3. Transport hazard class(es)	3	3	3	3
14.4. Packing Group	II	II	II	II
14.5. Environmental hazards	Marine pollutant	Marine pollutant	Marine pollutant	Marine pollutant
14.6. Special precautions for user	Relevant information in other sections have to be considered.	Relevant information in other sections have to be considered.	Relevant information in other sections have to be considered.	Relevant information in other sections have to be considered.
14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC code"	Not Applicable.	Not Applicable.	Not Applicable.	Not Applicable.

15. REGULATORY INFORMATION

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

National and local regulations must be observed.

For information on labelling please refer to section 2 of this document.

Relevant regulations:

SI 2002/1689: CHIP Regulations 2002

SI 2002/2677: COSHH Regulations 2002

SI 1999/3242: Management of Health & Safety at Work Regulations 1999
Health & Safety at Work Act 1974

SI 1993/1643: Environmental Protection Act 1993 & Subsidiary Regulations.

Other national and local measures relating to the workplace, pollution control, environmental protection and waste control.

15.2 Chemical Safety Assessment

No data available

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16. OTHER INFORMATION

This safety data sheet has been compiled in accordance with ANNEX-II guide to the compilation of safety data sheets of Regulation (EC) No. 1907/2006.

Relevant Phrases:

According to Regulation (EC) No 1278/2008 (CLP/ GHS);

Aquatic Chronic 2; H411: Hazardous to the aquatic environment chronic, category 2; Toxic to aquatic life with long lasting effects.
Asp. Tox. 1; H304: Aspiration hazard Category 1; May be fatal if swallowed and enters airways.
STOT SE 3; H336: Specific target organ toxicity (single exposure) Category 3 (narcotic effects); May cause drowsiness and dizziness.
Flam. Liq. 2; H225: Flammable liquids Category 2; Highly flammable liquid and vapour.
Skin Irrit. 2; H315: Skin corrosion/irritation Category 2; Causes skin irritation.
Skin Irrit. 2; H315: Skin corrosion/irritation Category 2; Causes skin irritation.
Flam. Liq. 3; H226: Flammable liquids Category 3; Flammable liquid and vapour.
Eye Dam. 1; H318: Serious eye damage / eye irritation Category 1; Causes serious eye damage.
Repr. 2; H361d: Reproductive toxicity Category 2 (developmental toxicity); Suspected of damaging the unborn child.
STOT RE 2; H373: Specific target organ toxicity (repeated exposure) Category 2; May cause damage to organs through prolonged or repeated exposure.
STOT SE 3; H336: Specific target organ toxicity (single exposure) Category 3 (narcotic effects); May cause drowsiness and dizziness.
Skin Irrit. 2; H315: Skin corrosion/irritation Category 2; Causes skin irritation.
Asp. Tox. 1; H304: Aspiration hazard Category 1; May be fatal if swallowed and enters airways.
Flam. Liq. 2; H225: Flammable liquids Category 2; Highly flammable liquid and vapour.
Flam. Liq. 3; H226: Flammable liquids Category 3; Flammable liquid and vapour.
Acute Tox. 4; H332: Acute toxicity Category 4; Harmful if inhaled.
Eye Irrit. 2; H319: Serious eye damage / eye irritation Category 2A; Causes serious eye irritation.
STOT SE 3; H335: Specific target organ toxicity (single exposure) Category 3 (respiratory tract irritation); May cause respiratory irritation.

According to 67/548/EEC;

R11 R38 R51/53 R65 R67: Highly flammable. Irritating to skin. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Harmful: may cause lung damage if swallowed. Vapours may cause drowsiness and dizziness.
R10 R38 R41 Flammable. Irritating to skin. Risk of serious damage to eyes.
R11 R38 R48/20 R63 R65 R67 Highly flammable. Irritating to skin. Harmful: danger of serious damage to health by prolonged exposure through inhalation. Possible risk of harm to the unborn child. Harmful: may cause lung damage if swallowed. Vapours may cause drowsiness and dizziness.
R10 R20 R36/37 Flammable. Harmful by inhalation. Irritating to eyes and respiratory system.

Abbreviations / Acronyms used:

CAS# - Chemical Abstracts Service number.

PBT - Persistent, Bioaccumulative and Toxic substance.

VPvB - Very Persistent and Very Bioaccumulative.

UN - United Nations.

REACH – Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006.

This Product Safety Data Sheet was prepared in compliance with article 31 and Annex II of the EU REACH regulation as well as their relevant amendments, on the approximation of laws, regulations and administrative provisions relative to the classification, packaging and labelling of dangerous substances and preparations.

This product should only be used as stated in Hodgson literature. It is the responsibility of the persons in receipt of this Product Safety Data Sheet to ensure that the information contained herein is properly read and understood by all people who may use, handle, dispose of or in any way come in to contact with the product. If the recipient subsequently produces a formulation containing the Hodgson product, it is the recipient's sole responsibility to ensure the transfer of all relevant information from the Hodgson Product Safety Data Sheet to their own Product Safety Data Sheet in compliance with article 31 and Annex II of the EU REACH regulation.

All information and instructions provided in the Product Safety Data Sheet are based on the current state of scientific and technical knowledge at the date indicated on the present Product Safety Data Sheet. Hodgson shall not be held responsible for any defect in the product covered by this Product Safety Data Sheet, should the existence of such defect not be detectable considering the current state of scientific and technical knowledge.