

Safety data sheet AM Tunnel2K hardener

in accordance with Regulation (EU) no. 453/2010

SECTION 1: Name of the substance and/or the mixture and the company

1.1 Product identifier

AM Tunnel2K hardener

1.2 Relevant identified use of the substance or mixture and uses which are not recommended

Hardner for two component paint systems.

1.3 Details concerning the suppliers which have prepared the safety data sheet

Manufacturer/Supplier	AM Surface GmbH
Street/PO Box	Spissenstrasse 72
Country ID/Postcode/Town	CH-6045 Meggen
E-mail	info@am-surface.ch
Telephone	+41 41 377 28 67
Fax	+41 41 377 28 45

1.4 Emergency number

+41 41 377 28 67 – After close of business +41 79 222 31 03

SECTION 2: Possible hazards

2.1 Classification of the material or mixture in accordance with Regulation (EC) no. 1272/2008

Flammable liquids, hazard category 3
Acute toxicity (oral), hazard category 4
Chemical burn/Irritation of the skin, hazard category 1B
Sensitisation – Skin, hazard category 1

2.2 Labelling elements in accordance with Regulation (EC) no. 1272/2008



Signal word **Hazard**

Hazard notes

H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reactions.

Safety notes

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233	Keep container tightly closed.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
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	Call a POISON CENTRE/doctor immediately.
P303+P361+P353	IF ON SKIN (or hair): Take off all contaminated clothing immediately. Rinse skin with water/shower.
P405	Store locked up.

Hazard-determining components of labelling

3-aminopropyltriethoxysilane, Isophorondiamine, benzyl alcohol.

2.3 Other hazards

Not known.

SECTION 3: Composition/Information concerning component parts

3.1 Substances

This product is a mixture.

3.2 Mixtures

Aminic silicon compounds with additives.

Hazardous contents

3-aminopropyltriethoxysilane

EC no. 213-048-4 CAS no. 919-30-2

Percentage > 50%

Classification in accordance with Directive 67/548/EEC

Classification in accordance with Regulation (EC) no. 1272/2008

Registration no. 01-2119480479-24-0001

Xn; R22 – C; R34 – R43

Acute tox. 4; H302 – Skin corr. 1B; H314 Skin sens. 1; H317

1-methoxypropyl-2-acetate

EC no. 203-603-9 CAS no. 108-65-6

Percentage 15 - < 20%

Classification in accordance with Directive 67/548/EEC

Classification in accordance with Regulation (EC) no. 1272/2008

Registration no. 01-2119475791-29

R10 – Xi; R36

Flam. Liq. 3; H226 – Eye irrit. 2; H319

There is a common workplace limit value (see section 8).

Benzyl alcohol

EC no. 202-859-9 CAS no. 100-51-6

Percentage 10 - < 15%

Classification in accordance with Directive 67/548/EEC

Classification in accordance with Regulation (EC) no. 1272/2008

Xi; R20/22

Acute tox. 4; H302 – Acute tox. 4; H332

Isophorondiamine

EC no. 220-666-8 CAS no. 2855-13-2

Percentage 10 - < 15%

Classification in accordance with Directive 67/548/EEC

Classification in accordance with Regulation (EC) no. 1272/2008

Xn; R21/22 – C; R34 – R43 – R52-53

Acute tox. 4; H302 – Acute tox. 4; H312 Skin corr. 1B;
H314 – Skin sens. 1; H317 Aquatic Chronic 3; H412

The wording of the hazard notes is found in section 16.

SECTION 4: First aid measures

4.1 Description of the first aid measures

General notes

following inhalation

following contact with the skin

following contact with the eyes after swallowing

Consult a doctor. Show this safety data sheet to the doctor providing the treatment.

Bring the person out into the open air. If the affected person feels unwell, consult a doctor.

Take off soiled clothing, wash the affected skin with a lot of soap and water. If the affected person feels unwell, consult a doctor.

With open eyelids, rinse thoroughly under running water, consult an eye specialist straight away.

Rinse out mouth and drink plenty of water, prompt vomiting, consult a doctor.

4.2 The most important acute and delayed symptoms and effects

No data available.

4.3 Information relevant to immediate assistance provided by a doctor and special treatment

No data available.

SECTION 5: Measures for fighting fires

5.1 Extinguishing media

Suitable extinguishing media

Spray water, extinguishing powder, CO₂, alcohol-proof foam.

Unsuitable extinguishing media

Water released at full speed (full jet).

5.2 Special hazards emanating from the substance or mixture

Thermal decomposition into carbon monoxide and organic nitrogen by-products.

5.3 Information for the fighting of fires

Leak proof suit which guards against fire with breathing apparatus that is independent of the circulating air.

SECTION 6: Measures in the event of unintentional release

6.1 Personal precautions, protective equipment and procedures which are to be applied in the event of emergencies

See section 8 "Limitation and monitoring of the exposure/Personal protective equipment".

6.2 Environmental protective measures

Prevent further discharge or spillage, if this is possible without any risks. Do not allow substance to reach bodies of water. Release into the environment should be avoided.

6.3 Methods and material for retention and cleaning

Absorb with inert absorption agents and dispose according to the local laws, unless usable in some other way.

6.4 Reference to other sections

For disposal, see section 13.

SECTION 7: Handling and storage

7.1 Safeguards for safe handling

Store the container in a cool place, keep sealed tight and ensure adequate ventilation.

7.2 Conditions for safe storage taking incompatibilities into account

Keep the container away from concentrated mineral acids and strong oxidants. Cool vulnerable containers with sprayed water.

7.3 Specific end uses

No data available.

SECTION 8: Limitation and monitoring of the exposure/Personal protective equipment

8.1 Parameters to be monitored

Component parts with workplace related limit values which have to be monitored (2000/39/EC)

1-methoxypropyl-2-acetate

EC no. 203-603-9	CAS no. 108-65-6
Limit value (8 h)	98 mg/m ³ (20 ppm)
Limit value (15 min)	246 mg/m ³ (50 ppm)
Note	Risk of absorption by the skin.

Component parts with workplace related limit values which have to be monitored (TRGS 900 Germany)

1-methoxypropyl-2-acetate

EC no. 203-603-9	CAS no. 108-65-6
Workplace limit value	50 ml/m ³ (ppm) – 270 mg/m ³
Peak limit,	
Overrun factor	1(I)
Remarks	DFG, EU, Y

8.2 Limitation and monitoring of the exposure

Suitable technical control equipment

Avoid skin and eye contact. When working, do not eat, drink or smoke. Wear skin protection as a preventative measure.

Personal protective equipment

Respiratory protection In insufficiently ventilated rooms, wear a protective respiratory mask with filter type A or breathing apparatus that is independent of the circulating air.

Eye protection Use leak proof protective goggles with side protection.

Skin protection Use safety gloves in accordance with EN-374-2 made from butyl rubber, thickness 0.5 mm, breakthrough time \geq 480 min. or made from fluorine rubber, thickness 0.4 mm, breakthrough time \geq 480 min.

Personal protection Use protective clothing made from rubber or plastic.

SECTION 9: Physical and chemical properties

9.1 Information concerning the basic physical and chemical properties

Visual appearance

Aggregate state	liquid
Colour	yellowish
Odour	aminic-ester like
Melting point/Melt range	Not available.
Initial boiling point/boiling range	Not available.
Flashpoint	43 °C
pH-value (at T = 20 °C)	Not applicable. (Hydrolysis)
Flammability	Not easily flammable.
Ignition temperature	Not available.
Auto-ignitability	Not applicable.
Oxidising properties	Not applicable.
Risk of explosion	Applies to a vapour air mixture.
Lower explosion limits	Not available.
Upper explosion limits	Not available.
Density (at T = 20 °C)	0.977 g/ml
Solubility in H ₂ O (at T = 20 °C)	Slightly soluble. (Hydrolysis)
Vapour pressure (at T = 20 °C)	Not available.
Vapour pressure (air = 1)	Not available.
Distribution coefficient (n-octanol/water)	Not available.
Viscosity (at T = 20 °C)	Not available.
Solvent separation test	Not applicable.
Solvent content (VOC EU)	Not available.
Evaporation number	Not available.

9.2 Other information

No data available.

SECTION 10: Stability and reactivity

10.1 Reactivity

The product reacts with water on ethanol, risk of flash point degradation.

10.2 Chemical stability

The product is stable.

10.3 Possibility of hazardous reactions

Exothermic reaction with strong oxidants and concentrated mineral acids.

10.4 Conditions to be avoided

No data available.

10.5 Incompatible materials

Water, acids.

10.6 Hazardous decomposition products

Only in the event of fire, see section 5.2.

SECTION 11: Toxicological information

11.1 Information relating to toxicological effects

Mixtures

Acute toxicity

No data available.

Irritation

The product irritates the skin and causes severe damage to the eyes.

Corrosive effect

The product causes chemical burns.

Sensitisation

The product has a sensitising effect upon contact with the skin.

Toxicity in the event of repeated administration

No data available.

Carcinogenity

No data available.

Mutagenicity

No data available.

Reproductive toxicity

No data available.

Other information

No data available.

SECTION 12: Environment related information

12.1 Toxicity

No data available.

12.2 Persistence and degradability

No data available.

12.3 Bioaccumulation potential

No data available.

12.4 Mobility in the soil

No data available.

12.5 Results of the PBT and vPvB evaluation

In accordance with the present information, the criteria for classification as a PBT and/or vPvB are not fulfilled.

12.6 Other harmful effects

Product that leaks damages bodies of water as a result of oxygen depletion and general pollution.

SECTION 13: Notes concerning disposal

13.1 Procedure for handling waste

Hazardous waste in accordance with the European waste catalogue (2000/532/EC). If salvaging is not possible, waste has to be disposed of in accordance with the local laws. Do not dispose of in the sewage system.

Waste code

20 01 27 Paints, print colours, glues and synthetic resins which contain hazardous substances.

15 01 10 Packaging which contains the residue of hazardous substances or is contaminated as a result of hazardous substances.

SECTION 14: Information concerning transportation

14.1 UN number

1263

14.2 Proper UN shipping term

ADR/RID

PAINT RELATED MATERIALS.

Tunnel restriction code (road)

(D/E)

IMDG code / ICAO TI / IATA DGR

PAINT RELATED MATERIAL (43 °C c.c.)

14.3 Transportation hazard class(es)

3 (flammable fluids)

14.4 Packaging group

III (Substances with a low hazard)

14.5 Environmental hazards

Labelling of substances which are harmful to the environment

ADR/RID / IMDG code / ICAO TI / IATA DGR Not applicable.

Marine pollutant Not applicable.

14.6 Special cautionary notes for the user

Not available.

14.7 Conveyance of bulk cargo in accordance with appendix II of the MARPOL Convention 73/78 and the IBC code

Not applicable.

SECTION 15: Statutory provisions

15.1 Provisions concerning safety, health and environmental protection/specific laws for the substance or mixture

EU provisions

Entry in appendix I of Directive 96/82/EC on the control of major-accident hazards involving dangerous substances
Follow quantity thresholds for substance group 6.

Directive 1998/8/EC concerning the placing of biocidal products on the market
Not applicable.

Regulation (EC) no. 648/2004 (Detergent regulation)
Not applicable.

Directive 1999/13/EC on the limitation of emissions of volatile organic compounds (VOC)
May be applicable.

German regulations

Limitation of use	Yes.
Technical Instructions on air quality (2002)	Follow limit values for organic materials in accordance with 5.2.5.
Water hazard class	Water hazard class 1 (slightly hazardous in bodies of water)
Storage class in accordance with TRGS 510	LGK 8 A (flammable corrosive substances)

Other provisions, restrictions and regulations relating to prohibitions

Follow bulletins M 004 and M 017 from BG Chemie and TRGS 540.

15.2 Substance safety assessment

The mixture has not been subjected to any safety assessment.

SECTION 16: Other information

Wording of the hazard notes in accordance with section 3

Flam. Liq. 3; H226	Flammable liquids, hazard category 3; Flammable liquid and vapour.
Acute tox. 4; H302	Acute tox (oral), hazard category 4; Harmful if swallowed.
Acute tox. 4; H302	Acute tox (oral), hazard category 4; Harmful in contact with skin.
Skin corr. 1B; H314	Burning/Irritation of skin, hazard category 1B; Causes severe skin burns and eye damage.
Skin sens. 1; H317	Sensitisation – skin, hazard category 1; May cause allergic skin reactions.
Eye irrit. 2; H319	Causes serious eye damage/irritation, hazard category 2; Causes serious eye irritation.
Acute tox. 4; H332	Acute tox. (inhalation), hazard category 4; Harmful if inhaled.
Aquatic chronic 1; H412	Chronic hazard in bodies of water, hazard category 3; Harmful to aquatic life with long-lasting effects.

R10	Flammable.
R20/22	Harmful by inhalation / Harmful if swallowed.
R21/22	Harmful in contact with skin / Harmful if swallowed.
R22	Harmful if swallowed.
R34	Causes burns.
R36	Irritating to eyes.
R43	May cause sensitisation by skin contact.
R52	Harmful to aquatic organisms.
R53	May cause long-term adverse effects in the aquatic environment.

Notes

This safety data sheet has been compiled on the basis of the applicable EU and German provisions. It reflects the current body of knowledge and is not a contractual assurance of product qualities. This information should not be changed or transferred to other products. Copying an unaltered document is permitted.

Abbreviations

AGW	Workplace limit value.
BG Chemie	Employers mutual insurance association for the chemical industry.
BGW	Biological limit value in the workplace.
DFG	Deutsche Forschungsgemeinschaft.
EU	European Union.
LGK	Storage class.
PBT	Persistent, bioaccumulative and toxic.
vPvB	Very persistent and very bioaccumulative.
TRGS	Technical rules for hazardous substances.
WGK	Water hazard class.
Y	There is no risk of foetal damage when AGW and BGW are adhered to.