LIQUID

Safety Data Sheet
Enke Glass Primer

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

1.1	Trade name:	Glass Primer
1.2	Relevant identified uses of the substance or mixture and uses advised against	
	Use of the substance/mixture:	Adhesion promotor on glass and ceramics
1.3	Details of the supplier of the safety data sheet: Street: Place: Tel: Telefax: E-mail: Internet: Responsible department:	ENKE-Werk Johannes Enke GmbH & Co. KG Hamburger Str. 16 40221 Düsseldorf, Germany +49 (0) 211 / 30 40 74 +49 (0) 211/ 39 37 18 info@enke-werk.de www.enke-werk.de/en On weekdays between 7 a.m. and 4 p.m.
1.4	Emergency telephone:	Poison Information Centre (24h): +49 (0) 551 / 19 240

SECTION 2: HAZARD IDENTIFICATION

2.1	Classification of the substance or mixture	
	GB CLP Regulation	
		Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336
	Full text of hazard statements:	see SECTION 16.
2.2	Label elements	
	GB CLP Regulation	
	Hazard components for labelling	propan-2-ol; isopropyl alcohol; isopropanol
	Signal word:	Danger
	Pictograms:	
	Hazard statements	
	H225	Highly flammable liquid and vapour.
	H319	Causes serious eye irritation.
	H3369	May cause drowsiness or dizziness.
	Precautionary statements	
	P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
	P233	Keep container tightly closed.
	P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
2.3	Other hazards	No information available.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2	Mixtures	
	Chemical characterization	
	Mixture of silane and 2- propanol	
	Hazardous components	

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	

	Classification (GB CLP Regulation)			
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol			90 - 100 %
	200-661-7	603-117-00-0		
	Flam. Liq. 2, Eye Irrit. 2, STOT SE 3; H225 H319 H336			
82985-35-1	Bis(trimethoxysilylpropyl)amine			1 - < 5 %
	280-084-5		01-2119969956-12	
	Eye Dam. 1; H318			

Full text of H and EUH statements: see section 16.

Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
	Specific Conc. Limits, M-factors and ATE		
67-63-0	200-661-7	propan-2-ol; isopropyl alcohol; isopropanol	90 - 100 %
	dermal: LD50 = 12800 mg/kg; oral: LD50 = 5280 mg/kg		
82985-35-1	280-084-5	Bis(trimethoxysilylpropyl)amine	1 - < 5 %
	dermal: LD50 = 11865 mg/kg; oral: LD50 = 3780 mg/kg		

SECTION 4: FIRST AID MEASURES

4.1	Description of first aid measures	
	After inhalation	Provide fresh air. In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).
	After contact with skin	Wash with plenty of water. Take off contaminated clothing and wash it before reuse.
	After contact with eyes	After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.
	After ingestion	Rinse mouth immediately and drink 1 glass of water. Do NOT induce vomiting. Aspiration hazard! Call a physician in any case!
4.2	Most important symptoms and effects, both acute and delayed	No information available.
4.3	Indication of any immediate medical attention and special treatment needed	Treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1	Extinguishing media	
	Suitable extinguishing media	Carbon dioxide (CO2), alcohol resistant foam, Extinguishing powder.
	Unsuitable extinguishing media	Water.
5.2	Special hazards arising from the substance or mixture	Flammable. Vapours can form explosive mixtures with air. In case of fire, the following can be released: Carbon monoxide, carbon dioxide, noxious gases/vapors.
5.3	Advice for firefighters	In case of fire: Wear self-contained breathing apparatus.
	Additional information	Use water spray jet to protect personnel and to cool endangered containers. Suppress

		gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1	Personal precautions, protective equipment and emergency procedures	
	General advice	Remove all sources of ignition. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment.
6.2	Environmental precautions	Do not allow uncontrolled discharge of product into the environment. Danger of explosion
6.3	Methods and material for containment and cleaning up	
	Other information	Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.
6.4	Reference to other sections	Safe handling: see section 7 Personal protection equipment: see section 8 Disposal: see section 13

SECTION 7: HANDLING AND STORAGE

7.1	Precautions for safe handling	
	Advice on safe handling	If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.
	Advice on protection against fire and explosion	Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges. Vapours can form explosive mixtures with air.
7.2	Conditions for safe storage, including any incompatibilities	
	Requirements for storage rooms and vessels	Keep container tightly closed. Keep in a cool, well-ventilated place. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
7.3	Specific end use(s)	Adhesion promotor on glass and ceramics

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m³	fibres/ml	Category	Origin
67-63-0	Propan-2-ol	400	999		TWA (8 h)	WEL
		500	1250		STEL (15 min)	WEL

DNEL/DMEL values

CAS No	Substance			
DNEL type		Exposure route	Effect	Value
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol			
Consumer DNEL, long-term		oral	systemic	26 mg/kg bw/day
Consumer DNEL, long-term		dermal	systemic	319 mg/kg bw/day
Worker DNEL, long-term		dermal	systemic	888 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	89 mg/m³

8.2	Exposure controls	
	Appropriate engineering controls	If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.
	Individual protection measures, such as personal protective equipment	
	Eye/face protection	Suitable eye protection: goggles.
	Hand protection	When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. Our recommendation is as follows: Suitable materials for prolonged, direct contact (at least protection index 6, corresponding to> 480 minutes permeation time according to EN 374): Neoprene®, Viton®, PVC, butyl or nitrile rubber. Dispose of contaminated gloves. With proper, optimized operation, only short-term contact and liquid splashes are to be expected, therefore, according to DGUV Information 212-007, a glove with a minimum protection class of 1 (<10 min) is sufficient. It must be ensured that the gloves are changed at short notice in case of chemical contact.
	Skin protection	Wear suitable protective clothing.
	Respiratory protection	In case of inadequate ventilation wear respiratory protection. Fresh air mask. Short term filler device: A2 - P2.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1	Information on basic physical and chemical properties	
	Physical State	Liquid
	Colour	colourless
	Odour	alcoholic
	Changes in the physical state	
	Melting/Freezing point:	not determined
	Boiling point, Initial boiling point and boiling range:	82 °C
	Flash point:	12 °C
	Flammability	
	Solid/liquid:	not applicable
	Gas:	not applicable
	Lower explosion limits:	2 vol. %
	Upper explosion limits:	12 vol. %
	Self-ignition temperature	
	Solid:	not applicable
	Gas:	not applicable
	Decomposition temperature:	not determined

	pH-Value:	not determined
	Viscosity / dynamic: (at 20 °C)	2 mPa·s
	Water solubility:	The study does not need to be conducted because the substance is known to be insoluble in water.
	Solubility in other solvents	not determined
	Partition coefficient n-octanol/water:	not determined
	Vapour pressure (at 20 °C):	41,6 hPa
	Density (at 20 °C):	0,8 g/cm³
	Relative vapour density:	not determined
9.2	Other information	
	Information with regard to physical hazard classes	
	Oxidizing properties	
	Not oxidising.	
	Other safety characteristics	
	Solid content:	not determined
	Evaporation rate:	not determined
	Further Information	

SECTION 10: STABILITY AND REACTIVITY

10.1	Reactivity	Flammable, Ignition hazard.
10.2	Chemical stability	The product is stable under storage at normal ambient temperatures.
10.3	Possibility of hazardous reactions	No known hazardous reactions.
10.4	Conditions to avoid	Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. Vapours can form explosive mixtures with air.
10.5	Incompatible materials	No information available.
10.6	Hazardous decomposition products	No known hazardous decomposition products.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on hazard classes as defined in GB CLP Regulation

Acute toxicity

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol				
	oral	LD50 5280 mg/kg	Rat		
	dermal	LD50 12800 mg/kg	Rabbit		
82985-35-1	Bis(trimethoxysilylpropyl)amine				
	oral	LD50 3780 mg/kg	Rat	OECD 401	
	dermal	LD50 11865 mg/kg	Rabbit	OECD 402	

	Irritation and corrosivity	Causes serious eye irritation.
	STOT-single exposure	May cause drowsiness or dizziness.
	Additional information on tests	The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

SECTION 12: ECOLOGICAL INFORMATION

12.1	Toxicity	
	The product is not: Ecotoxic.	

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] | [d]	Species	Source	Method
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol					
	Acute fish toxicity	LC50 9640 mg/l	96 h	Pimephales promelas (fathead minnow)		
	Acute algae toxicity	ErC50 > 1000 mg/l	72 h	Desmodesmus subspicatus		
	Acute crustacea toxicity	EC50 13299 mg/l	48 h	Daphnia magna (Big water flea)		
	Acute bacteria toxicity	(EC50 5175 mg/l)		Pseudomonas putida		
82985-35-1	Bis(trimethoxysilylpropyl)amine					
	Acute fish toxicity	LC50 130 mg/l	96 h	Salmo trutta fario (L) (Freshwater trout)	OECD 203	
	Acute algae toxicity	ErC50 > 100 mg/l	72 h	Desmodesmus subspicatus	OECD 201	
	Acute crustacea toxicity	EC50 > 100 mg/l	48 h	Daphnia magna (Big water flea)	OECD 202	

12.2	Persistence and degradability	
	The product has not been tested.	

CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			
82985-35-1	Bis(trimethoxysilylpropyl)amine			
	OECD 301 D (Closed Bottle Test)	17 %	28	
	Not readily biodegradable			

12.3	Bioaccumulative potential	The product has not been tested.
12.4	Mobility in soil	The product has not been tested.
12.5	Results of PBT and vPvB assessment	The substances in the mixture do not meet the PBT/vPvB criteria according to UK REACH. The product has not been tested.
12.6.	Endocrine disrupting properties	This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.
12.7	Other adverse effects	No information available.
	Further information	Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1	Waste treatment methods	
	Disposal recommendations	Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation. Containers have to be emptied completely and free of drops after final product removal. Emptied packages can be returned to the

		partners of Kreislaufsystem Blechverpackungen Stahl (Recycling system for metal containers). Collection points are provided by the ENKE company as user of the mark.
	List of Wastes Code - residues/unused products	080111 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU and removal of paint and varnish; waste paint and varnish containing organic solvents or other hazardous substances; hazardous waste
	List of Wastes Code - used product	080111 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU and removal of paint and varnish; waste paint and varnish containing organic solvents or other hazardous substances; hazardous waste
	Contaminated packaging	Wash with plenty of water. Completely emptied packages can be recycled.

SECTION 14: TRANSPORT INFORMATION

Land transport (ADR/RID)		
14.1	UN number:	UN1263
14.2	UN proper shipping name:	Paint
14.3	Transport hazard class(es):	3
14.4	Packing group:	II
	Hazard label:	3
	Classification code:	F1
	Special Provisions:	163 640D 650
	Limited quantity:	5 L
	Transport category:	2
	Hazard No:	33
	Tunnel restriction code:	D/E
	Other applicable information (land transport)	E2
Inland waterways transport (ADN)		
14.1	UN number:	UN1263
14.2	UN proper shipping name:	Paint
14.3	Transport hazard class(es):	3
14.4	Packing group:	II
	Hazard label:	3
	Classification code:	F1
	Special Provisions:	163 640D 650
	Limited quantity:	5L
	Expected quantity	E2
14.5	Environmental hazards	
	ENVIRONMENTALLY HAZARDOUS:	No
14.6	Special precautions for user	
	Warning:	Combustible liquid.
14.7.	Maritime transport in bulk according to IMO instruments	Not applicable

SECTION 15: REGULATORY INFORMATION

15.1	Safety, health and environmental regulations/ legislation specific for the substance or mixture	
	EU regulatory information	
	Restrictions on use (REACH, annex XVII):	Entry 3, Entry 40, Entry 75
	Additional information	To follow: 850/2004/EC, 79/117/EEC, 689/2008/EC
	National regulatory information	
	Employment restrictions:	Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).
	Water hazard class (D):	1 - slightly hazardous to water
15.2.	Chemical safety assessment	Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: OTHER INFORMATION

Abbreviations and acronyms

ADR:	Accord européen sur le transport des marchandises dangereuses par Route (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 Harmonized 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
LC50:	Lethal concentration, 50%
LD50:	Lethal dose, 50%

Classification for mixtures and used evaluation method according to GB CLP Regulation	
Classification	Classification procedure
Flam. Liq. 2; H225	On basis of test data
Eye Irrit. 2; H319	Calculation method
STOT SE 3; H336	Calculation method

Relevant H and EUH statements (number and full text)	
H225	Highly flammable liquid and vapour.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H336	Causes serious eye irritation.

Last update date (ENKE-Werk)	10.02.2022
Moy Materials Ltd version prepared by	Martin Bidewell

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.