

Trade name: glimtrex SIGNUM 2-Pack Lacquer satin 103002

Version: 48 / DE

Revision: 31.07.2020

Replaces Version: 47 / DE

Print date: 16.11.20

1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

glimtrex SIGNUM 2-Pack Lacquer satin 103002

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

Use of the substance/preparation

Surface treatment of wood and other materials

Identified Uses

SU22	REACHSET 2003 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
ERC8a	Wide dispersive indoor use of processing aids in open systems
ERC8c	Wide dispersive indoor use resulting in inclusion into or onto a matrix
PROC10	Roller application or brushing

SU3	REACHSET 1000 Industrial uses: Uses of substances as such or in preparations at industrial sites
ERC4	Industrial use of processing aids in processes and products, not becoming part of articles
ERC5	Industrial use resulting in inclusion into or onto a matrix
PROC7	Industrial spraying

SU21	REACHSET 3003 Consumer uses: Private households (= general public = consumers)
ERC8a	Wide dispersive indoor use of processing aids in open systems
ERC8c	Wide dispersive indoor use resulting in inclusion into or onto a matrix
PROC10	Roller application or brushing

1.3. Details of the supplier of the safety data sheet

Manufacturer

glimtrex GmbH
Orkotten 68
48291 Telgte
Telephone no. +49 (0) 2504 88887-111
Fax no. +49 (0) 2504 88887-112
E-mail address info@glimtrex.de

1.4. Emergency telephone number

Germany: +49 (0) 30 30686700

2. Hazards identification

2.1. Classification of the substance or mixture

Classification (Regulation (EC) No. 1272/2008)

This product is not classified hazardous in accordance with Regulation (EC) No 1272/2008.

2.2. Label elements

Trade name: glimtrex SIGNUM 2-Pack Lacquer satin 103002

Version: 48 / DE

Revision: 31.07.2020

Replaces Version: 47 / DE

Print date: 16.11.20

Labelling according to regulation (EC) No 1272/2008

EUH208 Contains 1,2-benzisothiazol-3(2H)-one, reaction mass of: 5-chloro-2- methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H -isothiazol-3- one [EC no. 220-239-6] (3:1); reaction mass of: 5-chloro-2- methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-4-isothiazolin-3- one [EC no. 220-239-6] (3:1), 2,4,7,9-tetramethyldec-5-yne-4,7-diol, May produce an allergic reaction.

Supplemental information

EUH210 Safety data sheet available on request.

2.3. Other hazards

This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT). This mixture contains no substance considered to be very persistent nor very bioaccumulating (vPvB) (if not listed in Section 3).

3. Composition/information on ingredients

Hazardous ingredients

2-butoxyethanol

CAS No.	111-76-2			
EINECS no.	203-905-0			
Registration no.	01-2119475108-36			
Concentration	>= 1	< 6		%
Classification (Regulation (EC) No. 1272/2008)				
	Acute Tox. 4	H302		Route of exposure: Oral exposure
	Acute Tox. 4	H312		Route of exposure: Dermal exposure
	Acute Tox. 4	H332		Route of exposure: Inhalation exposure
	Eye Irrit. 2	H319		
	Skin Irrit. 2	H315		

2-(2-butoxyethoxy)ethanol

CAS No.	112-34-5			
EINECS no.	203-961-6			
Registration no.	01-2119475104-44			
Concentration	>= 1	< 3		%
Classification (Regulation (EC) No. 1272/2008)				
	Eye Irrit. 2	H319		

2-dimethylaminoethanol

CAS No.	108-01-0			
EINECS no.	203-542-8			
Registration no.	01-2119492298-24			
Concentration	>= 0,1	< 1		%
Classification (Regulation (EC) No. 1272/2008)				
	Flam. Liq. 3	H226		
	Acute Tox. 3	H331		Route of exposure: Inhalation exposure
	Acute Tox. 4	H312		Route of exposure: Dermal exposure
	Acute Tox. 4	H302		Route of exposure: Oral exposure
	Skin Corr. 1B	H314		
	STOT SE 3	H335		Respiratory tract

Trade name: glimtrex SIGNUM 2-Pack Lacquer satin 103002

Version: 48 / DE

Revision: 31.07.2020

Replaces Version: 47 / DE

Print date: 16.11.20

Concentration limits (Regulation (EC) No. 1272/2008)

STOT SE 3 H335 >= 5

2,4,7,9-tetramethyldec-5-yne-4,7-diol

CAS No. 126-86-3

EINECS no. 204-809-1

Registration no. 01-2119954390-39

Concentration >= 0,1 < 1 %

Classification (Regulation (EC) No. 1272/2008)

Eye Dam. 1 H318

Skin Sens. 1B H317

Aquatic Chronic 3 H412

1,2-benzisothiazol-3(2H)-one

CAS No. 2634-33-5

EINECS no. 220-120-9

Concentration < 0,05 %

Classification (Regulation (EC) No. 1272/2008)

Acute Tox. 4 H302

Skin Irrit. 2 H315

Eye Dam. 1 H318

Skin Sens. 1 H317

Aquatic Acute 1 H400

Aquatic Chronic 2 H411

Concentration limits (Regulation (EC) No. 1272/2008)

Skin Sens. 1 H317 >= 0,05 %

reaction mass of: 5-chloro-2- methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H - isothiazol-3- one [EC no. 220-239-6] (3:1); reaction mass of: 5-chloro-2- methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-4-isothiazolin-3- one [EC no. 220-239-6] (3:1)

CAS No. 55965-84-9

EINECS no. 247-500-7

Concentration < 0,001 %

Classification (Regulation (EC) No. 1272/2008)

Acute Tox. 2 H330

Acute Tox. 2 H310

Acute Tox. 3 H301

Skin Corr. 1B H314

Skin Sens. 1 H317

Aquatic Acute 1 H400

Aquatic Chronic 1 H410

Eye Dam. 1 H318

Concentration limits (Regulation (EC) No. 1272/2008)

Skin Corr. 1C H314 >= 0,6 %

Skin Irrit. 2 H315 >= 0,06 %

Eye Irrit. 2 H319 >= 0,06 %

Skin Sens. 1 H317 >= 0,0015 %

Eye Dam. 1 H318 >= 0,6 %

Aquatic Chronic 1 H410 M = 100

1

Aquatic Acute 1 H400 M = 100

Trade name: glimtrex SIGNUM 2-Pack Lacquer satin 103002

Version: 48 / DE

Revision: 31.07.2020

Replaces Version: 47 / DE

Print date: 16.11.20

Note

For explanation of abbreviations see section 16.

This product does not contain substances of very high concern (Regulation (EC) No 1907/2006 (REACH), Article 57) (if not listed in Section 3).

4. First aid measures

4.1. Description of first aid measures

General information

In all cases of doubt, or when symptoms persist, seek medical attention. If unconscious place in recovery position and seek medical advice. First aider: Pay attention to self-protection! Remove affected person from danger area, lay him down.

After inhalation

In case of accident by inhalation: remove casualty to fresh air and keep at rest. Keep warm, calm and covered up. In all cases of doubt, or when symptoms persist, seek medical attention.

After skin contact

Wash off immediately with soap and water. Do NOT use solvents or thinners. Consult a doctor if skin irritation persists.

After eye contact

Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice. Take medical treatment.

After ingestion

Do not induce vomiting. Take medical treatment.

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

Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness. High concentration of vapours may cause irritation to eyes and respiratory system and produce narcotic effects.

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

Hints for the physician / treatment

Treat symptomatically.

5. Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Recommended: alcohol resistant foam, CO₂, powders, water spray/mist

Non suitable extinguishing media

Do not use a solid water stream as it may scatter and spread fire.

5.2. Special hazards arising from the substance or mixture

Fire will produce dense black smoke. In a fire, hazardous decomposition products may be produced. Exposure to decomposition products may cause a health hazard. Vapours can form an explosive mixture with air.

5.3. Advice for firefighters

Special protective equipment for fire-fighting

In case of combustion evolution of dangerous gases possible. Use self-contained breathing apparatus.

Trade name: glimtrex SIGNUM 2-Pack Lacquer satin 103002

Version: 48 / DE

Revision: 31.07.2020

Replaces Version: 47 / DE

Print date: 16.11.20

Other information

Do not allow run-off from fire fighting to enter drains or water courses. Cool closed containers exposed to fire with water. Standard procedure for chemical fires.

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Eliminate all ignition sources if safe to do so. Ensure adequate ventilation. Do not inhale vapours. Do not inhale gases. Do not inhale mist.

6.2. Environmental precautions

Do not allow to enter drains or waterways. Do not allow to enter soil, waterways or waste water canal. In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

6.3. Methods and material for containment and cleaning up

Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth and place in container for disposal according to local regulations (see section 13). Clean contaminated floors and objects thoroughly with water and detergents, observing environmental regulations. Do NOT use solvents or thinners. Send in suitable containers for recovery or disposal.

6.4. Reference to other sections

Refer to protective measures listed in Sections 7 and 8.

7. Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Prevent the creation of flammable or explosive concentrations of vapour in air and avoid vapour concentration higher than the occupational exposure limits. Keep container tightly closed and dry in a cool, well-ventilated place. Use only with adequate ventilation/personal protection. Ensure adequate ventilation. Provide for sufficient ventilation. This can be achieved by local exhaust or general exhaust air collection. Wear a suitable respirator if the ventilation is not sufficient to keep the solvent vapour concentration below the occupational limit values. Avoid contact with skin and eyes. Avoid inhalation of vapour and spray mist. Do not eat, drink or smoke when using this product. Use personal protective clothing. For personal protection see Section 8.

Advice on protection against fire and explosion

Vapours can form an explosive mixture with air. Vapours are heavier than air and may spread along floors. In addition, the product should only be used in areas from which all naked lights and other sources of ignition have been excluded. Mixture may charge electrostatically: always use earthing leads when transferring from one container to another. Take measures to prevent the build up of electrostatic charge. Wear shoes with conductive soles. No sparking tools should be used. Fight fire with normal precautions from a reasonable distance.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Provide solvent-resistant and impermeable floor. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Hints on storage assembly

Store away from oxidising agents, from strongly alkaline and strongly acid materials.

Storage classes

Storage class according to TRGS 510 10 Flammable liquids

Trade name: glimtrex SIGNUM 2-Pack Lacquer satin 103002

Version: 48 / DE

Revision: 31.07.2020

Replaces Version: 47 / DE

Print date: 16.11.20

Further information on storage conditions

Keep away from heat. Protect from sunlight. Keep away from sources of ignition - No smoking. Store in accordance with the particular national regulations.

7.3. Specific end use(s)

See exposure scenario, if available.

8. Exposure controls/personal protection

8.1. Control parameters

Other information

-

Derived No/Minimal Effect Levels (DNEL/DMEL)

2-butoxyethanol

Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Long-term	
Route of exposure	Dermal exposure	
Mode of action	Acute effects	
Concentration	89	mg/kg

Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	246	mg/m ³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Long-term	
Route of exposure	Dermal exposure	
Mode of action	Systemic effects	
Concentration	75	mg/kg/d

Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	20	ppm

Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Short-term	
Route of exposure	Dermal exposure	
Mode of action	Systemic effects	
Concentration	89	mg/kg/d

Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Short-term	

Trade name: glimtrex SIGNUM 2-Pack Lacquer satin 103002

Version: 48 / DE

Revision: 31.07.2020

Replaces Version: 47 / DE

Print date: 16.11.20

Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	246	mg/m ³
Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Short-term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	1091	mg/m ³
Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Long-term	
Route of exposure	Oral exposure	
Mode of action	Systemic effects	
Concentration	3,2	mg/kg/d
Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Short-term	
Route of exposure	Oral exposure	
Mode of action	Systemic effects	
Concentration	13,4	mg/kg/d
Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Short-term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	123	mg/m ³
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	Dermal exposure	
Mode of action	Acute effects	
Concentration	44,5	mg/kg
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Acute effects	
Concentration	426	mg/m ³
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	Oral exposure	
Mode of action	Systemic effects	
Concentration	6,3	mg/kg

Trade name: glimtrex SIGNUM 2-Pack Lacquer satin 103002

Version: 48 / DE

Revision: 31.07.2020

Replaces Version: 47 / DE

Print date: 16.11.20

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	106,4	mg/m ³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	Dermal exposure	
Mode of action	Systemic effects	
Concentration	38	mg/kg

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	59	mg/m ³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	49	mg/m ³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Short-term	
Route of exposure	Oral exposure	
Mode of action	Systemic effects	
Concentration	26,7	mg/kg/d

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Short-term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	135	mg/m ³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Short-term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	147	mg/m ³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Short-term	
Route of exposure	Dermal exposure	

Trade name: glimtrex SIGNUM 2-Pack Lacquer satin 103002

Version: 48 / DE

Revision: 31.07.2020

Replaces Version: 47 / DE

Print date: 16.11.20

Mode of action	Systemic effects	
Concentration	89	mg/kg/d
2-(2-butoxyethoxy)ethanol		
Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (industrial)	
Duration of exposure	Short-term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	14	ppm
Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (industrial)	
Duration of exposure	Long-term	
Route of exposure	Dermal exposure	
Mode of action	Systemic effects	
Concentration	20	mg/kg/d
Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (industrial)	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	10	ppm
Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (industrial)	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	10	ppm
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Short-term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	7,5	mg/m ³
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	Dermal exposure	
Mode of action	Systemic effects	
Concentration	10	mg/kg/d
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	5	mg/kg/d

Trade name: glimtrex SIGNUM 2-Pack Lacquer satin 103002

Version: 48 / DE

Revision: 31.07.2020

Replaces Version: 47 / DE

Print date: 16.11.20

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	Oral exposure	
Mode of action	Systemic effects	
Concentration	1,3	mg/kg/d

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	5	mg/m ³

2-dimethylaminoethanol

Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Long-term	
Route of exposure	Dermal exposure	
Mode of action	Systemic effects	
Concentration	1,04	mg/kg

Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	7,4	mg/m ³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	2,2	mg/m ³

Predicted No Effect Concentration (PNEC)

2-butoxyethanol

Type of value	PNEC	
Type	Freshwater	
Concentration	8,8	mg/l

Type of value	PNEC	
Type	Saltwater	
Concentration	0,88	mg/l

Type of value	PNEC	
Type	saltwater sediment	
Concentration	3,46	mg/kg

Type of value	PNEC	
Type	Sewage treatment plant (STP)	

Trade name: glimtrex SIGNUM 2-Pack Lacquer satin 103002

Version: 48 / DE

Revision: 31.07.2020

Replaces Version: 47 / DE

Print date: 16.11.20

Concentration	463	mg/l
Type of value	PNEC	
Type	Soil	
Concentration	2,33	mg/kg
2-(2-butoxyethoxy)ethanol		
Type of value	PNEC	
Type	Freshwater	
Concentration	1	mg/l
Type of value	PNEC	
Type	marine water	
Concentration	0,1	mg/l
Type of value	PNEC	
Type	Fresh water sediment	
Concentration	4	mg/kg
Type of value	PNEC	
Type	saltwater sediment	
Concentration	0,4	mg/kg
Type of value	PNEC	
Type	Sewage treatment plant (STP)	
Concentration	200	mg/l
Type of value	PNEC	
Type	Soil	
Concentration	0,4	mg/l
2-dimethylaminoethanol		
Type of value	PNEC	
Type	Freshwater	
Concentration	0,0661	mg/l
Type of value	PNEC	
Type	Saltwater	
Concentration	0,00661	mg/l
Type of value	PNEC	
Conditions	sporadic release	
Concentration	0,0661	mg/l
Type of value	PNEC	
Type	Fresh water sediment	
Concentration	0,0529	mg/kg
Type of value	PNEC	
Type	Soil	
Concentration	0,0177	mg/kg
Type of value	PNEC	

Trade name: glimtrex SIGNUM 2-Pack Lacquer satin 103002

Version: 48 / DE

Revision: 31.07.2020

Replaces Version: 47 / DE

Print date: 16.11.20

Type	Sewage treatment plant (STP)	
Concentration	10	mg/l

8.2. Exposure controls

Exposure controls

Users are advised to consider national Occupational Exposure Limits or other equivalent values. Provide for sufficient ventilation. This can be achieved by local exhaust or general exhaust air collection. Wear a suitable respirator if the ventilation is not sufficient to keep the solvent vapour concentration below the occupational limit values.

Respiratory protection

Avoid inhalation of vapour and spray mist. Use breathing apparatus if exposed to vapours/dust/aerosol. Recommended Filter type: Respiratory protection mask with combination filter A/P2

Hand protection

Protective gloves complying with EN 374.

Glove material

Appropriate Material butyl-rubber

Material thickness \geq 0,7 mm

Breakthrough time \geq 30 min

This recommendation is valid only for the product named in this safety data sheet supplied by us, and only for the indicated intended use purposes.

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.

The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed.

The breakthrough time must be greater than the end use time of the product.

Gloves should be replaced regularly and if there is any sign of damage to the glove material.

The performance or effectiveness of the glove may be reduced by physical/ chemical damage and poor maintenance.

Eye protection

Wear eye glasses with side protection according to EN 166.

Body protection

Wear suitable protective clothing. Remove contaminated clothing and wash it before reuse. Wash hands before breaks and after work.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Form	liquid
Colour	white
Odour	characteristic
Odour threshold	
Remarks	not determined
pH value	
Remarks	not determined
Melting point	
Remarks	not determined
Freezing point	

Trade name: glimtrex SIGNUM 2-Pack Lacquer satin 103002

Version: 48 / DE

Revision: 31.07.2020

Replaces Version: 47 / DE

Print date: 16.11.20

Remarks	not determined		
Initial boiling point and boiling range			
Remarks	not determined		
Flash point			
Value	>	60	°C
Evaporation rate			
Remarks	not determined		
Flammability (solid, gas)	not determined		
Upper/lower flammability or explosive limits			
Remarks	not determined		
Vapour pressure			
Remarks	not determined		
Vapour density			
Remarks	not determined		
Density			
Value	appr.	1,044	kg/l
Temperature		20	°C
Solubility in water	not determined		
Remarks	not determined		
Solubility(ies)	not determined		
Remarks	not determined		
Partition coefficient: n-octanol/water	not determined		
Remarks	not determined		
Ignition temperature	not determined		
Remarks	not determined		
Decomposition temperature	not determined		
Remarks	not determined		
Viscosity	not determined		
Remarks	not determined		
Efflux time			
Value	40	to	60 s
Temperature	20	°C	
Method	DIN EN ISO 2431 - 4 mm		
Explosive properties	not determined		
evaluation	not determined		
Oxidising properties	not determined		
Remarks	not determined		
9.2. Other information			
Non-volatile content			
Value	38,6		%
Method	calculated value		

Trade name: glimtrex SIGNUM 2-Pack Lacquer satin 103002

Version: 48 / DE

Revision: 31.07.2020

Replaces Version: 47 / DE

Print date: 16.11.20

Other information

This information is not available.

10. Stability and reactivity**10.1. Reactivity**

Stable under recommended storage and handling conditions (see section 7).

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

To avoid thermal decomposition, do not overheat.

10.4. Conditions to avoid

Isolate from sources of heat, sparks and open flame.

10.5. Incompatible materials

Keep away from oxidising agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions.

10.6. Hazardous decomposition products

Carbon monoxide and carbon dioxide, nitrous oxides (NOx), dense black smoke, No decomposition if used as prescribed.

11. Toxicological information**11.1. Information on toxicological effects****Acute oral toxicity**

ATE	>	10.000	mg/kg
Method	calculated value (Regulation (EC) No. 1272/2008)		
Remarks	Based on available data, the classification criteria are not met.		

Acute oral toxicity (Components)**2-butoxyethanol**

Species	guinea pig		
LD50		1414	mg/kg
Method	OECD 401		
Source	1 (reliable without restriction)		

2-dimethylaminoethanol

Species	rat		
LD50		1183	mg/kg
Method	OECD 401		

reaction mass of: 5-chloro-2- methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H - isothiazol-3- one [EC no. 220-239-6] (3:1); reaction mass of: 5-chloro-2- methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-4-isothiazolin-3- one [EC no. 220-239-6] (3:1)

ATE		100	mg/kg
Method	conversion value		

1,2-benzisothiazol-3(2H)-one

Species	rat		
LD50		1193	mg/kg

Acute dermal toxicity

Trade name: glimtrex SIGNUM 2-Pack Lacquer satin 103002

Version: 48 / DE

Revision: 31.07.2020

Replaces Version: 47 / DE

Print date: 16.11.20

ATE	8.503,98	mg/kg
	32	
Method	calculated value (Regulation (EC) No. 1272/2008)	
Remarks	Based on available data, the classification criteria are not met.	

Acute dermal toxicity (Components)**2-butoxyethanol**

Species	guinea pig	
LD50	435	mg/kg
Source	1 (reliable without restriction)	

2-dimethylaminoethanol

Species	rabbit	
LD50	1219	mg/kg

reaction mass of: 5-chloro-2- methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H - isothiazol-3- one [EC no. 220-239-6] (3:1); reaction mass of: 5-chloro-2- methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-4-isothiazolin-3- one [EC no. 220-239-6] (3:1)

ATE	50	mg/kg
Method	conversion	

Acute inhalational toxicity

ATE	> 20	mg/l
Administration/Form	Dust/Mist	
Method	calculated value (Regulation (EC) No. 1272/2008)	
Remarks	Based on available data, the classification criteria are not met.	

Acute inhalative toxicity (Components)**2-butoxyethanol**

Species	rat	
LC50	2,56	mg/l
Duration of exposure	4	h
Administration/Form	Dust/Mist	
Source	1 (reliable without restriction)	

2-dimethylaminoethanol

Species	rat	
LC50	0,5	mg/l
Duration of exposure	4	h
Administration/Form	Dust/Mist	
Method	conversion value	

reaction mass of: 5-chloro-2- methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H - isothiazol-3- one [EC no. 220-239-6] (3:1); reaction mass of: 5-chloro-2- methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-4-isothiazolin-3- one [EC no. 220-239-6] (3:1)

ATE	0,05	mg/l
Duration of exposure	4	h
Administration/Form	Dust/Mist	
Method	conversion value	
Remarks	Mist	

Skin corrosion/irritation

Method	Calculation method (Regulation (EC) No. 1272/2008)	
Remarks	Based on available data, the classification criteria are not met.	

Skin corrosion/irritation (Components)**2-butoxyethanol**

Species	rabbit
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Trade name: glimtrex SIGNUM 2-Pack Lacquer satin 103002

Version: 48 / DE

Revision: 31.07.2020

Replaces Version: 47 / DE

Print date: 16.11.20

Duration of exposure	4	h
Observation Period	28	d
evaluation	Irritating to skin and mucous membranes	
Method	EEC 84/449, B.4	

2-dimethylaminoethanol

Species rabbit

reaction mass of: 5-chloro-2- methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H - isothiazol-3- one [EC no. 220-239-6] (3:1); reaction mass of: 5-chloro-2- methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-4-isothiazolin-3- one [EC no. 220-239-6] (3:1)

Species	rabbit
evaluation	Severe skin irritation

1,2-benzisothiazol-3(2H)-one

evaluation Irritating to skin.

Serious eye damage/irritation

Method	Calculation method (Regulation (EC) No. 1272/2008)
Remarks	Based on available data, the classification criteria are not met.

Serious eye damage/irritation (Components)**2-butoxyethanol**

Species	rabbit	
Duration of exposure	24	h
Observation Period	21	d
evaluation	Eye irritation	
Source	1 (reliable without restriction)	

2-(2-butoxyethoxy)ethanol

Species	rabbit
evaluation	Irritating to eyes.
Source	2 (reliable with restrictions)

2-dimethylaminoethanol**2,4,7,9-tetramethyldec-5-yne-4,7-diol****1,2-benzisothiazol-3(2H)-one**

evaluation Irritating to eyes.

Sensitization

Method	Calculation method (Regulation (EC) No. 1272/2008)
Remarks	Based on available data, the classification criteria are not met.

Sensitization (Components)

reaction mass of: 5-chloro-2- methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H - isothiazol-3- one [EC no. 220-239-6] (3:1); reaction mass of: 5-chloro-2- methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-4-isothiazolin-3- one [EC no. 220-239-6] (3:1)

Species	guinea pig
evaluation	Causes sensitisation on guinea-pigs.

2,4,7,9-tetramethyldec-5-yne-4,7-diol

evaluation May cause sensitization by skin contact.

1,2-benzisothiazol-3(2H)-one

Reference substance	1,2-benzisothiazol-3(2H)-one
evaluation	May cause sensitization by skin contact.

Mutagenicity

Method	Calculation method (Regulation (EC) No. 1272/2008)
Remarks	Based on available data, the classification criteria are not met.

Trade name: glimtrex SIGNUM 2-Pack Lacquer satin 103002

Version: 48 / DE

Revision: 31.07.2020

Replaces Version: 47 / DE

Print date: 16.11.20

Reproductive toxicity

Method Calculation method (Regulation (EC) No. 1272/2008)
 Remarks Based on available data, the classification criteria are not met.

Carcinogenicity

Method Calculation method (Regulation (EC) No. 1272/2008)
 Remarks Based on available data, the classification criteria are not met.

Specific Target Organ Toxicity (STOT)**Single exposure**

Method Calculation method (Regulation (EC) No. 1272/2008)
 Remarks Based on available data, the classification criteria are not met.

Repeated exposure

Remarks Based on available data, the classification criteria are not met.

Specific Target Organ Toxicity (STOT) (Components)**2-dimethylaminoethanol****Specific target organ toxicity - single exposure**

evaluation May cause respiratory irritation.
 Route of exposure inhalative
 Organs: Respiratory tract

Aspiration hazard

Based on available data, the classification criteria are not met.

Other information

No toxicological data are available.

12. Ecological information**12.1. Toxicity****General information**

For this subsection there is no ecotoxicological data available on the product as such.

Fish toxicity (Components)

reaction mass of: 5-chloro-2- methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H - isothiazol-3- one [EC no. 220-239-6] (3:1); reaction mass of: 5-chloro-2- methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-4-isothiazolin-3- one [EC no. 220-239-6] (3:1)

Species	Oncorhynchus mykiss (rainbow trout)		
LC50	0,19		mg/l
Duration of exposure	96	h	

1,2-benzisothiazol-3(2H)-one

Species	Oncorhynchus mykiss (rainbow trout)		
LC50	2,18		mg/l
Duration of exposure	96	h	

Daphnia toxicity (Components)

reaction mass of: 5-chloro-2- methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H - isothiazol-3- one [EC no. 220-239-6] (3:1); reaction mass of: 5-chloro-2- methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-4-isothiazolin-3- one [EC no. 220-239-6] (3:1)

Species	Daphnia magna (Water flea)		
EC50	0,16		mg/l
Duration of exposure	48	h	

Trade name: glimtrex SIGNUM 2-Pack Lacquer satin 103002

Version: 48 / DE

Revision: 31.07.2020

Replaces Version: 47 / DE

Print date: 16.11.20

2,4,7,9-tetramethyldec-5-yne-4,7-diol

Species	Daphnia magna (Water flea)		
EC50	91		mg/l
Duration of exposure	48	h	

1,2-benzisothiazol-3(2H)-one

Species	Daphnia magna (Water flea)		
EC50	2,94		mg/l
Duration of exposure	48	h	

Algae toxicity (Components)

reaction mass of: 5-chloro-2- methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H - isothiazol-3- one [EC no. 220-239-6] (3:1); reaction mass of: 5-chloro-2- methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-4-isothiazolin-3- one [EC no. 220-239-6] (3:1)

Species	Scenedesmus capricornutum (fresh water algae)		
EC50	0,018		mg/l
Duration of exposure	72	h	

Bacteria toxicity (Components)

reaction mass of: 5-chloro-2- methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H - isothiazol-3- one [EC no. 220-239-6] (3:1); reaction mass of: 5-chloro-2- methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-4-isothiazolin-3- one [EC no. 220-239-6] (3:1)

Species	activated sludge		
EC50	4,5		mg/l

12.2. Persistence and degradability**General information**

For this subsection there is no ecotoxicological data available on the product as such.

Biodegradability (Components)

reaction mass of: 5-chloro-2- methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H - isothiazol-3- one [EC no. 220-239-6] (3:1); reaction mass of: 5-chloro-2- methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-4-isothiazolin-3- one [EC no. 220-239-6] (3:1)

evaluation Not readily biodegradable.

1,2-benzisothiazol-3(2H)-one

evaluation Readily biodegradable.

12.3. Bioaccumulative potential**General information**

For this subsection there is no ecotoxicological data available on the product as such.

Partition coefficient: n-octanol/water

Remarks not determined

12.4. Mobility in soil**General information**

For this subsection there is no ecotoxicological data available on the product as such.

Mobility in soil

no data available

12.5. Results of PBT and vPvB assessment**General information**

For this subsection there is no ecotoxicological data available on the product as such.

Trade name: glimtrex SIGNUM 2-Pack Lacquer satin 103002

Version: 48 / DE

Revision: 31.07.2020

Replaces Version: 47 / DE

Print date: 16.11.20

12.6. Other adverse effects

General information

For this subsection there is no ecotoxicological data available on the product as such.

General information / ecology

For this subsection there is no ecotoxicological data available on the product as such.

13. Disposal considerations

13.1. Waste treatment methods

Disposal recommendations for the product

EWC waste code 140603 - other solvents and solvent mixtures

EWC waste code 200113 - solvents

Where possible recycling is preferred to disposal or incineration.

Do not allow to enter drains or waterways.

modified product

EWC waste code 070304 - other organic solvents, washing liquids and mother liquors

Disposal recommendations for packaging

EWC waste code 150110 - packaging containing residues of or contaminated by dangerous substances

Germany: KBS system for sheet covering

Completely emptied packagings can be given for recycling.

14. Transport information

	Land transport ADR/RID	Marine transport IMDG/GGVSee	Air transport ICAO/IATA
14.1. UN number	Not classified as dangerous in the meaning of transport regulations.	Not classified as dangerous in the meaning of sea and air transport regulations.	Not a dangerous substance as defined in the above regulations.

15. Regulatory information

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

Water Hazard Class (Germany)

Water Hazard Class WGK 1

(Germany)

Remarks Derivation of WGK according to Annex 1 No. 5.2 AwSV

VOC

VOC (EU) 7,2 % 75 g/l

15.2. Chemical safety assessment

For this substance / mixture a chemical safety assessment was not carried out.

16. Other information

Trade name: glimtrex SIGNUM 2-Pack Lacquer satin 103002

Version: 48 / DE

Revision: 31.07.2020

Replaces Version: 47 / DE

Print date: 16.11.20

Hazard statements listed in Chapter 3

H226	Flammable liquid and vapour.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H310	Fatal in contact with skin.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

CLP categories listed in Chapter 3

Acute Tox. 2	Acute toxicity, Category 2
Acute Tox. 3	Acute toxicity, Category 3
Acute Tox. 4	Acute toxicity, Category 4
Aquatic Acute 1	Hazardous to the aquatic environment, acute, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic, Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic, Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic, Category 3
Eye Dam. 1	Serious eye damage, Category 1
Eye Irrit. 2	Eye irritation, Category 2
Flam. Liq. 3	Flammable liquid, Category 3
Skin Corr. 1B	Skin corrosion, Category 1B
Skin Irrit. 2	Skin irritation, Category 2
Skin Sens. 1	Skin sensitization, Category 1
Skin Sens. 1B	Skin sensitization, Category 1B
STOT SE 3	Specific target organ toxicity - single exposure, Category 3

Abbreviations

ADR - Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
 RID - Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
 IMDG - International Maritime Code for Dangerous Goods
 IATA - International Air Transport Association
 IATA-DGR - Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
 ICAO-TI - Technical Instructions by the "International Civil Aviation Organization" (ICAO)
 GHS - Globally Harmonized System of Classification and Labelling of Chemicals
 EINECS - European Inventory of Existing Commercial Chemical Substances
 CAS - Chemical Abstracts Service (division of the American Chemical Society)
 GefStoffV - Gefahrstoffverordnung (Ordinance on Hazardous Substances, Germany)
 LOAEL - Lowest Observed Adverse Effect Level
 LOEL - Lowest Observed Effect Level
 NOAEL - No Observed Adverse Effect Level
 NOEC - No Observed Effect Concentration

Trade name: glimtrex SIGNUM 2-Pack Lacquer satin 103002

Version: 48 / DE

Revision: 31.07.2020

Replaces Version: 47 / DE

Print date: 16.11.20

NOEL - No Observed Effect Level

OECD - Organisation for Economic Cooperation and Development

VOC - Volatile Organic Compounds

Changes since the last version are highlighted in the margin (***). This version replaces all previous versions.

This safety datasheet only contains information relating to safety and does not replace any product information or product specification.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification.

The 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, unless specified in the text.

The information contained herein is based on the present state of our knowledge and does therefore not guarantee certain properties.

Annex to the extended Safety Data Sheet (eSDS)

Short title of the exposure scenario

ES005 - Industrial applications: industrial spraying (inside)

Use of the substance/preparation

Surface treatment of wood and other materials

Use

SU3	Industrial uses: Uses of substances as such or in preparations at industrial sites
ERC4	Industrial use of processing aids in processes and products, not becoming part of articles
ERC5	Industrial use resulting in inclusion into or onto a matrix
PROC7	Industrial spraying

Contributing exposure scenario controlling environmental exposure

Use

ERC4	Industrial use of processing aids in processes and products, not becoming part of articles
ERC5	Industrial use resulting in inclusion into or onto a matrix

Physical form

liquid

Maximum amount used per time or activity

Emission days per site: <= 300

Other relevant operational conditions

Use: Room temperature

Drying and through-curing takes place at ambient temperature or at higher temperatures.

Where possible recycling is preferred to disposal or incineration.

Do not allow to enter soil, waterways or waste water canal.

Dispose of rinse water in accordance with local and national regulations.

Waste water

Do not discharge into the drains/surface waters/groundwater. Spray cabin waters are to be conducted after mechanical pretreatment into a wastewater treatment facility.

Exhaust air

Keep container closed. Avoid release to the environment.

Trade name: glimtrex SIGNUM 2-Pack Lacquer satin 103002

Version: 48 / DE

Revision: 31.07.2020

Replaces Version: 47 / DE

Print date: 16.11.20

Soil

Floors should be impervious, resistant to liquids and easy to clean.

Disposal recommendations for the product

EWC waste code 140603 - other solvents and solvent mixtures
200113 - solvents

Where possible recycling is preferred to disposal or incineration.

Do not allow to enter drains or waterways.

modified product

EWC waste code 070304 - other organic solvents, washing liquids and mother liquors

Disposal recommendations for packaging

EWC waste code 150110 - packaging containing residues of or contaminated by dangerous substances

Germany: KBS system for sheet covering

Completely emptied packagings can be given for recycling.

Contributing exposure scenario controlling worker exposure**Use**

SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites

PROC7 Industrial spraying

Physical form

liquid

Maximum amount used per time or activity

Duration of exposure <= 8 h/d

Frequency of exposure <= 220 d/a

Other relevant operational conditions

Use: Room temperature

Drying and through-curing takes place at ambient temperature or at higher temperatures.

Read attached instructions before use.

Product substance and product safety related measures

Mainly used in closed systems. Apply technical measures to comply with the occupational exposure limits. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. Provide for sufficient ventilation. This can be achieved by local exhaust or general exhaust air collection. Wear a suitable respirator if the ventilation is not sufficient to keep the solvent vapour concentration below the occupational limit values.

Respiratory protection

Avoid inhalation of vapour and spray mist. Use breathing apparatus if exposed to vapours/dust/aerosol.

Recommended Filter type: Respiratory protection mask with combination filter A/P2

Hand protection

Protective gloves complying with EN 374.

Glove material

Appropriate Material butyl-rubber

Material thickness >= 0,7

Breakthrough time >= 30

This recommendation is valid only for the product named in this safety data sheet supplied by us, and only for the indicated intended use purposes.

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.

Trade name: glimtrex SIGNUM 2-Pack Lacquer satin 103002

Version: 48 / DE

Revision: 31.07.2020

Replaces Version: 47 / DE

Print date: 16.11.20

The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed.
 The breakthrough time must be greater than the end use time of the product.
 Gloves should be replaced regularly and if there is any sign of damage to the glove material.
 The performance or effectiveness of the glove may be reduced by physical/ chemical damage and poor maintenance.

Eye protection

Wear eye glasses with side protection according to EN 166.

Body protection

Wear suitable protective clothing. Remove contaminated clothing and wash it before reuse. Wash hands before breaks and after work.

Exposure estimation and reference to its source

Workers (industrial)

SU	SU3
PROC	PROC7
Assessment method	inhalation, long-term - systemic
Exposure assessment	42 mg/m ³
Exposure assessment (method)	ESIG GES tool
Risk characterisation ratio (RCR)	0,428571
Lead substance	2-butoxyethanol

Workers (industrial)

PROC	PROC7
Assessment method	dermal, long-term - systemic
Exposure assessment	8,5714 mg/kg/d
Exposure assessment (method)	ESIG GES tool
Risk characterisation ratio (RCR)	0,068571
Lead substance	2-butoxyethanol

Workers (industrial)

PROC	PROC10
Assessment method	inhalation, long-term - systemic
Exposure assessment	55 mg/m ³
Exposure assessment (method)	EASY TRA v3.5
Risk characterisation ratio (RCR)	0,561224
Lead substance	2-butoxyethanol

Workers (industrial)

PROC	PROC10
Assessment method	dermal, long-term - systemic
Exposure assessment	5,4857 mg/kg/d
Exposure assessment (method)	ESIG GES tool
Risk characterisation ratio (RCR)	0,043886
Lead substance	2-butoxyethanol

Workers (industrial)

PROC	PROC13
Assessment method	inhalation, long-term - systemic
Exposure assessment	49,2393 mg/m ³
Exposure assessment (method)	ESIG GES tool
Risk characterisation ratio (RCR)	0,502441
Lead substance	2-butoxyethanol

Workers (industrial)

Trade name: glimtrex SIGNUM 2-Pack Lacquer satin 103002

Version: 48 / DE

Revision: 31.07.2020

Replaces Version: 47 / DE

Print date: 16.11.20

PROC	PROC13
Assessment method	dermal, long-term - systemic
Exposure assessment	2,7429 mg/kg/d
Exposure assessment (method)	EASY TRA v3.5
Risk characterisation ratio (RCR)	0,021943
Lead substance	2-butoxyethanol
Workers (industrial)	
SU	SU3
PROC	PROC7
Assessment method	inhalation, long-term - local and systemic
Exposure assessment	7 ppm
Risk characterisation ratio (RCR)	0,7
Lead substance	2-(2-butoxyethoxy)ethanol
Workers (industrial)	
SU	SU3
PROC	PROC7
Assessment method	dermal, long-term - systemic
Exposure assessment	2,14 mg/kg/d
Risk characterisation ratio (RCR)	0,11
Lead substance	2-(2-butoxyethoxy)ethanol
Workers (industrial)	
SU	SU3
PROC	PROC10
Assessment method	inhalation, long-term - local and systemic
Exposure assessment	0,5 ppm
Risk characterisation ratio (RCR)	0,05
Lead substance	2-(2-butoxyethoxy)ethanol
Workers (industrial)	
SU	SU3
PROC	PROC10
Assessment method	dermal, long-term - systemic
Exposure assessment	5,49 mg/kg/d
Risk characterisation ratio (RCR)	0,27
Lead substance	2-(2-butoxyethoxy)ethanol
Workers (industrial)	
SU	SU3
PROC	PROC13
Assessment method	inhalation, long-term - local and systemic
Exposure assessment	2 ppm
Risk characterisation ratio (RCR)	0,2
Lead substance	2-(2-butoxyethoxy)ethanol
Workers (industrial)	
SU	SU3
PROC	PROC13
Assessment method	dermal, long-term - systemic
Exposure assessment	0,69 mg/kg/d
Risk characterisation ratio (RCR)	0,034
Lead substance	2-(2-butoxyethoxy)ethanol

Information on estimated exposure and downstream-user guidance

Trade name: glimtrex SIGNUM 2-Pack Lacquer satin 103002

Version: 48 / DE

Revision: 31.07.2020

Replaces Version: 47 / DE

Print date: 16.11.20

Guidance for Downstream Users

The downstream user can evaluate whether he operates within the conditions set in the exposure scenario on the basis of the information supplied. This evaluation can be conducted by an expert or using the risk assessment tools recommended by ECHA.

Annex to the extended Safety Data Sheet (eSDS)

Short title of the exposure scenario

ES008 - Professional uses: roller application or brushing, dipping and pouring and other processing without aerosol formation (inside)

Use of the substance/preparation

Surface treatment of wood and other materials

Use

SU22	Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
ERC8a	Wide dispersive indoor use of processing aids in open systems
ERC8c	Wide dispersive indoor use resulting in inclusion into or onto a matrix
PROCh01	Other processing without aerosol formation
PROC10	Roller application or brushing
PROC13	Treatment of articles by dipping and pouring

Contributing exposure scenario controlling environmental exposure

Use

ERC8a	Wide dispersive indoor use of processing aids in open systems
ERC8c	Wide dispersive indoor use resulting in inclusion into or onto a matrix

Physical form

liquid

Maximum amount used per time or activity

Emission days per site: <= 250

Other relevant operational conditions

Use: Room temperature
Drying and through-curing takes place at ambient temperature or at higher temperatures.
Volatile organic substances will volatilise into the atmospheric air inside.
Where possible recycling is preferred to disposal or incineration.
Do not allow to enter soil, waterways or waste water canal.
Dispose of rinse water in accordance with local and national regulations.

Waste water

Do not discharge into the drains/surface waters/groundwater.

Exhaust air

Keep container closed. Avoid release to the environment.

Soil

Floors should be impervious, resistant to liquids and easy to clean.

Disposal recommendations for the product

EWC waste code	140603 - other solvents and solvent mixtures
	200113 - solvents

Where possible recycling is preferred to disposal or incineration.
Do not allow to enter drains or waterways.

modified product

Trade name: glimtrex SIGNUM 2-Pack Lacquer satin 103002

Version: 48 / DE

Revision: 31.07.2020

Replaces Version: 47 / DE

Print date: 16.11.20

EWC waste code 070304 - other organic solvents, washing liquids and mother liquors

Disposal recommendations for packaging

EWC waste code 150110 - packaging containing residues of or contaminated by dangerous substances

Germany: KBS system for sheet covering
Completely emptied packagings can be given for recycling.

Contributing exposure scenario controlling worker exposure (professional)**Short title of the exposure scenario**

Substance number:CES016

Use

SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
PROCh01 Other processing without aerosol formation
PROC10 Roller application or brushing
PROC13 Treatment of articles by dipping and pouring

Physical form liquid**Maximum amount used per time or activity**

Duration of exposure	<=	8	h/d
Frequency of exposure	<=	220	d/a

Other relevant operational conditions

Use: Room temperature
Drying and through-curing takes place at ambient temperature or at higher temperatures.
Volatile organic substances will volatilise into the atmospheric air inside.
Read attached instructions before use.

Product substance and product safety related measures

Apply technical measures to comply with the occupational exposure limits. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. Provide for sufficient ventilation. This can be achieved by local exhaust or general exhaust air collection. Wear a suitable respirator if the ventilation is not sufficient to keep the solvent vapour concentration below the occupational limit values.

Respiratory protection

Avoid inhalation of vapour and spray mist. Use breathing apparatus if exposed to vapours/dust/aerosol.
Recommended Filter type: Respiratory protection mask with combination filter A/P2

Hand protection

Protective gloves complying with EN 374.

Glove material

Appropriate Material butyl-rubber

Material thickness >= 0,7

Breakthrough time >= 30

This recommendation is valid only for the product named in this safety data sheet supplied by us, and only for the indicated intended use purposes.

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.

The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed.

The breakthrough time must be greater than the end use time of the product.

Trade name: glimtrex SIGNUM 2-Pack Lacquer satin 103002

Version: 48 / DE

Revision: 31.07.2020

Replaces Version: 47 / DE

Print date: 16.11.20

Gloves should be replaced regularly and if there is any sign of damage to the glove material. The performance or effectiveness of the glove may be reduced by physical/ chemical damage and poor maintenance.

Eye protection

Wear eye glasses with side protection according to EN 166.

Body protection

Wear suitable protective clothing. Remove contaminated clothing and wash it before reuse. Wash hands before breaks and after work.

Exposure estimation and reference to its source

Workers (professional)

SU	SU22
PROC	PROC10
Assessment method	inhalation, long-term - systemic
	Indoor use
Exposure assessment	36,9294 mg/m ³
Exposure assessment (method)	ESIG GES tool
Risk characterisation ratio (RCR)	0,376831
Lead substance	2-butoxyethanol

Workers (professional)

SU	SU22
PROC	PROC10
Assessment method	dermal, long-term - systemic
	Indoor use
Exposure assessment	5,4857 mg/kg/d
Exposure assessment (method)	ESIG GES tool
Risk characterisation ratio (RCR)	0,043887
Lead substance	2-butoxyethanol

Workers (professional)

SU	SU22
PROC	PROC10
Assessment method	inhalation, long-term - systemic
	Outdoor use
Exposure assessment	51,7012 ppm
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,527563
Lead substance	2-butoxyethanol

Workers (professional)

SU	SU22
PROC	PROC10
Assessment method	dermal, long-term - systemic
	Outdoor use
Exposure assessment	3,2914 mg/kg/d
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,026331
Lead substance	2-butoxyethanol

Workers (professional)

SU	SU22
PROC	PROC11
Assessment method	inhalation, long-term - systemic

Trade name: glimtrex SIGNUM 2-Pack Lacquer satin 103002

Version: 48 / DE

Revision: 31.07.2020

Replaces Version: 47 / DE

Print date: 16.11.20

Exposure assessment	Indoor use
Exposure assessment (method)	62 mg/m ³
Risk characterisation ratio (RCR)	ESIG GES tool
Lead substance	0,632653
	2-butoxyethanol
Workers (professional)	
SU	SU22
PROC	PROC11
Assessment method	dermal, long-term - systemic
	Indoor use
Exposure assessment	12,8571 mg/kg/d
Exposure assessment (method)	ESIG GES tool
Risk characterisation ratio (RCR)	0,632653
Lead substance	2-butoxyethanol
Workers (professional)	
SU	SU22
PROC	PROC11
Assessment method	inhalation, long-term - systemic
	Outdoor use
Exposure assessment	10 ppm
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,5
Lead substance	2-butoxyethanol
Workers (professional)	
SU	SU22
PROC	PROC11
Assessment method	dermal, long-term - systemic
	Outdoor use
Exposure assessment	21 mg/kg/d
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,286
Lead substance	2-butoxyethanol
Workers (professional)	
SU	SU22
PROC	PROC13
Assessment method	inhalation, long-term - systemic
	Indoor use
Exposure assessment	49,2393 mg/m ³
Exposure assessment (method)	ESIG GES tool
Risk characterisation ratio (RCR)	0,502441
Lead substance	2-butoxyethanol
Workers (professional)	
SU	SU22
PROC	PROC13
Assessment method	dermal, long-term - systemic
	Indoor use
Exposure assessment	2,7429 mg/kg/d
Exposure assessment (method)	ESIG GES tool
Risk characterisation ratio (RCR)	0,021943
Lead substance	2-butoxyethanol

Workers (professional)

Trade name: glimtrex SIGNUM 2-Pack Lacquer satin 103002

Version: 48 / DE

Revision: 31.07.2020

Replaces Version: 47 / DE

Print date: 16.11.20

SU	SU22
PROC	PROC13
Assessment method	inhalation, long-term - systemic
	Outdoor use
Exposure assessment	7 ppm
Exposure assessment (method)	ESIG GES tool
Risk characterisation ratio (RCR)	0,35
Lead substance	2-butoxyethanol

Workers (professional)

SU	SU22
PROC	PROC13
Assessment method	dermal, long-term - systemic
	Outdoor use
Exposure assessment	14 mg/kg/d
Exposure assessment (method)	ESIG GES tool
Risk characterisation ratio (RCR)	0,183
Lead substance	2-butoxyethanol

Workers (professional)

SU	SU22
PROC	PROC10
Assessment method	inhalation, long-term - local and systemic
	Outdoor use
Exposure assessment	2,5 ppm
Risk characterisation ratio (RCR)	0,25
Lead substance	2-(2-butoxyethoxy)ethanol

Workers (professional)

SU	SU22
PROC	PROC10
Assessment method	dermal, long-term - systemic
	Outdoor use
Exposure assessment	2,74 mg/kg/d
Risk characterisation ratio (RCR)	0,137
Lead substance	2-(2-butoxyethoxy)ethanol

Workers (professional)

SU	SU22
PROC	PROC10
Assessment method	inhalation, long-term - local and systemic
	Indoor use
Exposure assessment	1,25 ppm
Risk characterisation ratio (RCR)	0,125
Lead substance	2-(2-butoxyethoxy)ethanol

Workers (professional)

SU	SU22
PROC	PROC10
Assessment method	dermal, long-term - systemic
	Indoor use
Exposure assessment	0,55 mg/kg/d
Risk characterisation ratio (RCR)	0,027
Lead substance	2-(2-butoxyethoxy)ethanol

Workers (professional)

SU	SU22
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Trade name: glimtrex SIGNUM 2-Pack Lacquer satin 103002

Version: 48 / DE

Revision: 31.07.2020

Replaces Version: 47 / DE

Print date: 16.11.20

PROC	PROC11
Assessment method	inhalation, long-term - local and systemic
	Indoor use
Exposure assessment	5 ppm
Risk characterisation ratio (RCR)	0,5
Lead substance	2-(2-butoxyethoxy)ethanol

Workers (professional)

SU	SU22
PROC	PROC11
Assessment method	dermal, long-term - systemic
	Indoor use
Exposure assessment	2,14 mg/kg/d
Risk characterisation ratio (RCR)	0,107
Lead substance	2-(2-butoxyethoxy)ethanol

Workers (professional)

SU	SU22
PROC	PROC11
Assessment method	inhalation, long-term - local and systemic
	Outdoor use
Exposure assessment	4,2 ppm
Risk characterisation ratio (RCR)	0,42
Lead substance	2-(2-butoxyethoxy)ethanol

Workers (professional)

SU	SU22
PROC	PROC11
Assessment method	dermal, long-term - systemic
	Outdoor use
Exposure assessment	1,29 mg/kg/d
Risk characterisation ratio (RCR)	0,42
Lead substance	2-(2-butoxyethoxy)ethanol

Workers (professional)

SU	SU22
PROC	PROC13
Assessment method	inhalation, long-term - local and systemic
	Indoor use
Exposure assessment	2 ppm
Risk characterisation ratio (RCR)	0,2
Lead substance	2-(2-butoxyethoxy)ethanol

Workers (professional)

SU	SU22
PROC	PROC13
Assessment method	dermal, long-term - systemic
	Indoor use
Exposure assessment	0,69 mg/kg/d
Risk characterisation ratio (RCR)	0,034
Lead substance	2-(2-butoxyethoxy)ethanol

Workers (professional)

SU	SU22
PROC	PROC13
Assessment method	inhalation, long-term - local and systemic
	Outdoor use

Trade name: glimtrex SIGNUM 2-Pack Lacquer satin 103002

Version: 48 / DE

Revision: 31.07.2020

Replaces Version: 47 / DE

Print date: 16.11.20

Exposure assessment	4,2	ppm
Risk characterisation ratio (RCR)		0,42
Lead substance	2-(2-butoxyethoxy)ethanol	

Workers (professional)

SU	SU22	
PROC	PROC13	
Assessment method	dermal, long-term - systemic	
	Outdoor use	
Exposure assessment	0,41	mg/kg/d
Risk characterisation ratio (RCR)		0,42
Lead substance	2-(2-butoxyethoxy)ethanol	

Information on estimated exposure and downstream-user guidance**Guidance for Downstream Users**

The downstream user can evaluate whether he operates within the conditions set in the exposure scenario on the basis of the information supplied. This evaluation can be conducted by an expert or using the risk assessment tools recommended by ECHA.

Annex to the extended Safety Data Sheet (eSDS)**Short title of the exposure scenario**

ES010 - Private households (= general public = consumers): roller application or brushing, dipping and pouring, non industrial spraying and other processing without aerosol formation (inside)

Use of the substance/preparation

Surface treatment of wood and other materials

Use

SU21	Consumer uses: Private households (= general public = consumers)
ERC8a	Wide dispersive indoor use of processing aids in open systems
ERC8c	Wide dispersive indoor use resulting in inclusion into or onto a matrix
PROCh01	Other processing without aerosol formation
PROC10	Roller application or brushing
PROC11	Non industrial spraying
PROC13	Treatment of articles by dipping and pouring

Contributing exposure scenario controlling environmental exposure**Use**

ERC8a	Wide dispersive indoor use of processing aids in open systems
ERC8c	Wide dispersive indoor use resulting in inclusion into or onto a matrix

Physical form

liquid

Maximum amount used per time or activity

Emission days per site: <= 20

Other relevant operational conditions

Use: Room temperature
 Adhere to the recommended processing temperature.
 Volatile organic substances will volatilise into the atmospheric air inside.
 Do not allow to enter soil, waterways or waste water canal.

Waste water

Do not discharge into the drains/surface waters/groundwater. Spray cabin waters are to be conducted

Trade name: glimtrex SIGNUM 2-Pack Lacquer satin 103002

Version: 48 / DE

Revision: 31.07.2020

Replaces Version: 47 / DE

Print date: 16.11.20

after mechanical pretreatment into a wastewater treatment facility.

Exhaust air

Keep container closed. Avoid release to the environment.

Soil

Floors should be impervious, resistant to liquids and easy to clean. Protect floor with suitable covering plastic film / paper.

Disposal recommendations for the product

EWC waste code 140603 - other solvents and solvent mixtures
200113 - solvents

Where possible recycling is preferred to disposal or incineration.
Do not allow to enter drains or waterways.

modified product

EWC waste code 070304 - other organic solvents, washing liquids and mother liquors

Disposal recommendations for packaging

EWC waste code 150110 - packaging containing residues of or contaminated by dangerous substances

Germany: KBS system for sheet covering
Completely emptied packagings can be given for recycling.

Contributing exposure scenario controlling consumer exposure

Use

SU21 Consumer uses: Private households (= general public = consumers)
PROCh01 Other processing without aerosol formation
PROC10 Roller application or brushing
PROC11 Non industrial spraying
PROC13 Treatment of articles by dipping and pouring

Physical form liquid

Maximum amount used per time or activity

Duration of exposure <= 4 h/d
Frequency of exposure <= 20 d/a

Other relevant operational conditions

Use: Room temperature
Drying and through-curing takes place at ambient temperature or at higher temperatures.
Adhere to the recommended processing temperature.
Volatile organic substances will volatilise into the atmospheric air inside.

Product substance and product safety related measures

Keep out of reach of children. Keep away from food, drink and animal feedingstuffs. Do not eat, drink or smoke when using this product.

Avoid inhalation of vapour and spray mist. Use breathing apparatus if exposed to vapours/dust/aerosol.

Recommended Filter type: Respiratory protection mask with combination filter A/P2

Protective gloves complying with EN 374.

Glove material

Appropriate Material butyl-rubber

Material thickness >= 0,7

Breakthrough time >= 30

This recommendation is valid only for the product named in this safety data sheet supplied by us, and only for the indicated intended use purposes.

Trade name: glimtrex SIGNUM 2-Pack Lacquer satin 103002

Version: 48 / DE

Revision: 31.07.2020

Replaces Version: 47 / DE

Print date: 16.11.20

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.
The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed.
The breakthrough time must be greater than the end use time of the product.
Gloves should be replaced regularly and if there is any sign of damage to the glove material.
The performance or effectiveness of the glove may be reduced by physical/ chemical damage and poor maintenance.
Wear eye glasses with side protection according to EN 166.
Wear suitable protective clothing. Remove contaminated clothing and wash it before reuse. Wash hands before breaks and after work.

Information on estimated exposure and downstream-user guidance

Guidance for Downstream Users

The downstream user can evaluate whether he operates within the conditions set in the exposure scenario on the basis of the information supplied. This evaluation can be conducted by an expert or using the risk assessment tools recommended by ECHA.