SAFETY DATA SHEET

Date of issue/Date of revision : 30 October 2023 Version : 15.01



SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name : SIGMAZINC 158 BINDER GREY

Product code : 00252860

Other means of identification

Not available.

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

Product use : Professional applications, Used by spraying.

Use of the substance/ :

mixture

: Coating.

Uses advised against: Product is not intended, labelled or packaged for consumer use.

1.3 Details of the supplier of the safety data sheet

PPG Coatings Belgium BV/SRL Tweemontstraat 104 B-2100 Deurne Belgium Telephone +32-33606311 Fax +32-33606435

e-mail address of person responsible for this SDS

: Product.Stewardship.EMEA@ppg.com

1.4 Emergency telephone number

Supplier

+31 20 4075210

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition: Mixture

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

Flam. Liq. 2, H225 Repr. 1B, H360FD STOT SE 3, H336 STOT RE 2, H373

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

English (GB) Europe 1/18

SIGMAZINC 158 BINDER GREY

SECTION 2: Hazards identification

2.2 Label elements

Hazard pictograms







Signal word : Danger

Hazard statements : Highly flammable liquid and vapour. May cause drowsiness or dizziness.

May damage fertility. May damage the unborn child.

May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

Prevention : Wear protective gloves, protective clothing and eye or face protection. Keep away from

heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not

breathe vapour.

Response : IF exposed or concerned: Get medical advice or attention.

Storage : Store in a well-ventilated place. Keep container tightly closed.

Disposal : Dispose of contents and container in accordance with all local, regional, national and

international regulations.

P280, P210, P260, P308 + P313, P403 + P233, P501

Hazardous ingredients : 1-methoxy-2-propanol

crystalline silica, respirable powder (<10 microns)

trimethyl borate

Supplemental label

elements

: Not applicable.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Restricted to professional users.

Special packaging requirements

Containers to be fitted with child-resistant

with child-resistant

fastenings

: Not applicable.

Tactile warning of danger : Not applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB

: This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

Other hazards which do not result in classification

: Prolonged or repeated contact may dry skin and cause irritation.

English (GB) Europe 2/18

SIGMAZINC 158 BINDER GREY

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

Product/ingredient name	Identifiers	% by weight	Classification	Specific Conc. Limits, M-factors and ATEs	Туре
I ∕-methoxy-2-propanol	REACH #: 01-2119457435-35 EC: 203-539-1 CAS: 107-98-2 Index: 603-064-00-3	≥10 - ≤25	Flam. Liq. 3, H226 STOT SE 3, H336	-	[1] [2]
ethylbenzene	REACH #: 01-2119489370-35 EC: 202-849-4 CAS: 100-41-4 Index: 601-023-00-4	≥10 - ≤15	Flam. Liq. 2, H225 Acute Tox. 4, H332 STOT RE 2, H373 (hearing organs) Asp. Tox. 1, H304 Aquatic Chronic 3, H412	ATE [Inhalation (vapours)] = 17.8 mg/l	[1] [2]
xylene	EC: 215-535-7 CAS: 1330-20-7	≥5.0 - ≤9.1	Flam. Liq. 3, H226 Acute Tox. 4, H312 Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 Asp. Tox. 1, H304 Aquatic Chronic 3, H412	ATE [Dermal] = 1700 mg/kg ATE [Inhalation (vapours)] = 11 mg/l	[1] [2]
crystalline silica, respirable powder (<10 microns)	EC: 238-878-4 CAS: 14808-60-7	≥1.0 - ≤5.0	STOT RE 1, H372 (inhalation)	-	[1] [2]
methanol	REACH #: 01-2119433307-44 EC: 200-659-6 CAS: 67-56-1 Index: 603-001-00-X	≥1.0 - <3.0	Flam. Liq. 2, H225 Acute Tox. 3, H301 Acute Tox. 3, H311 Acute Tox. 3, H331 STOT SE 1, H370	ATE [Oral] = 100 mg/kg ATE [Dermal] = 300 mg/kg ATE [Inhalation (vapours)] = 3 mg/l STOT SE 1, H370: C ≥ 10% STOT SE 2, H371: 3% ≤ C < 10%	[1] [2]
trimethyl borate	EC: 204-468-9 CAS: 121-43-7 Index: 005-005-00-1	<1.0	Flam. Liq. 3, H226 Acute Tox. 4, H312 Eye Irrit. 2, H319 Repr. 1B, H360FD (oral) STOT SE 1, H370 (optic nerve) See Section 16 for the full text of the H statements declared above.	ATE [Dermal] = 1980 mg/kg	[1] [2]

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

<u>Type</u>

English (CD)	Europo	2/40
English (GB)	Europe	3/18

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Commission Regulation (EU) 2020/878

Code : 00252860 Date of issue/Date of revision : 30 October 2023

SIGMAZINC 158 BINDER GREY

SECTION 3: Composition/information on ingredients

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

Occupational exposure limits, if available, are listed in Section 8.

SUB codes represent substances without registered CAS Numbers.

SECTION 4: First aid measures

4.1 Description of first aid measures

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.

Inhalation : Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is

irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained

personnel.

Skin contact: Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water

or use recognised skin cleanser. Do NOT use solvents or thinners.

Ingestion: If swallowed, seek medical advice immediately and show the container or label. Keep

person warm and at rest. Do NOT induce vomiting.

Protection of first-aiders: No action shall be taken involving any personal risk or without suitable training. If it is

suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water

before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

Eye contact: No known significant effects or critical hazards.

Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness or

dizziness.

Skin contact: Defatting to the skin. May cause skin dryness and irritation.

Ingestion : Can cause central nervous system (CNS) depression.

Over-exposure signs/symptoms

Eye contact : No specific data.

Inhalation : Adverse symptoms may include the following:

nausea or vomiting

headache

drowsiness/fatigue dizziness/vertigo unconsciousness reduced foetal weight increase in foetal deaths skeletal malformations

Skin contact: Adverse symptoms may include the following:

irritation dryness cracking

reduced foetal weight increase in foetal deaths skeletal malformations

Ingestion: Adverse symptoms may include the following:

reduced foetal weight increase in foetal deaths skeletal malformations

English (GB) Europe 4/18

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Commission Regulation (EU) 2020/878

Code : 00252860 Date of issue/Date of revision : 30 October 2023

SIGMAZINC 158 BINDER GREY

SECTION 4: First aid measures

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large

quantities have been ingested or inhaled.

Specific treatments No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

: Use dry chemical, CO2, water spray (fog) or foam.

Unsuitable extinguishing media

: Do not use water jet.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture : Highly flammable liquid and vapour. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion.

Hazardous combustion products

: Decomposition products may include the following materials: carbon oxides metal oxide/oxides

5.3 Advice for firefighters

Special precautions for fire-fighters

: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders: If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For nonemergency personnel".

6.2 Environmental precautions

: Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and material for containment and cleaning up

English (GB)	Europe	5/18

SIGMAZINC 158 BINDER GREY

SECTION 6: Accidental release measures

Small spill

: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill

: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product.

6.4 Reference to other sections

: See Section 1 for emergency contact information.

See Section 8 for information on appropriate personal protective equipment.

See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

Protective measures

: Put on appropriate personal protective equipment (see Section 8). Avoid exposure obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapour or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

: Store between the following temperatures: 0 to 35°C (32 to 95°F). Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidising materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

7.3 Specific end use(s)

See Section 1.2 for Identified uses.

English (GB) Europe 6/18

SIGMAZINC 158 BINDER GREY

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
 rmethoxy-2-propanol	EU OEL (Europe, 1/2022). Absorbed through skin.
	STEL: 568 mg/m³ 15 minutes.
	STEL: 150 ppm 15 minutes.
	TWA: 375 mg/m³ 8 hours.
	TWA: 100 ppm 8 hours.
ethylbenzene	EU OEL (Europe, 1/2022). Absorbed through skin.
	STEL: 884 mg/m³ 15 minutes.
	STEL: 200 ppm 15 minutes.
	TWA: 442 mg/m³ 8 hours.
	TWA: 100 ppm 8 hours.
xylene	EU OEL (Europe, 1/2022). [xylene, mixed isomers pure]
	Absorbed through skin.
	STEL: 442 mg/m³ 15 minutes.
	STEL: 100 ppm 15 minutes.
	TWA: 221 mg/m³ 8 hours.
	TWA: 50 ppm 8 hours.
crystalline silica, respirable powder (<10 microns)	ACGIH TLV (United States, 1/2022). [Silica, crystalline]
	TWA: 0.025 mg/m³ 8 hours. Form: Respirable
methanol	EU OEL (Europe, 1/2022). Absorbed through skin.
	TWA: 260 mg/m³ 8 hours.
	TWA: 200 ppm 8 hours.
trimethyl borate	ACGIH TLV (United States).
	STEL: 6 mg/m³
	TWA: 2 mg/m³

Recommended monitoring procedures

Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs

Product/ingredient name	Type	Exposure	Value	Population	Effects
-methoxy-2-propanol	DNEL	Long term Oral	33 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	43.9 mg/m³	General population	Systemic
	DNEL	Long term Dermal	78 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	183 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	369 mg/m ³	Workers	Systemic
	DNEL	Short term Inhalation	553.5 mg/m ³	Workers	Local
	DNEL	Short term Inhalation	553.5 mg/m ³	Workers	Systemic
ethylbenzene	DNEL	Long term Oral	1.6 mg/kg bw/day	General population	Systemic
•	DNEL	Long term Inhalation	15 mg/m ³	General population	
	DNEL	Long term Inhalation	77 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	180 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Inhalation	293 mg/m³	Workers	Local

English (GB)	Europe	7/18

SIGMAZINC 158 BINDER GREY

SECTION 8: Exposure controls/personal protection

DMEL Short term Inhalation DNEL DNEL DNEL DNEL DNEL DNEL DNEL DNEL	•		•			
Xylene DNEL Short term Inhalation DNEL Short term Inhalation DNEL		DMEL		442 mg/m³		Local
DNEL DNEL LONG term Inhalation DNEL LONG term Inhalation DNEL LONG term Inhalation DNEL LONG term Inhalation DNEL DNEL DNEL DNEL DNEL DNEL DNEL DNEL						
DNEL DNEL Long term Dermal DNEL Long term Inhalation DNEL DNEL Long term Inhalation DNEL Short term Inhalation DNEL Long term Inhalation DNEL Short term Inhalation DNEL Long term Dermal DNEL Long term Dermal DNEL Long term Dramal DNEL Long term Dermal DNEL Long term Dermal DNEL Short term Inhalation DNEL Short term Inhalation DNEL Short term Inhalation DNEL Short term Dramal DNEL Short term Dermal DNEL Long term Dermal DNEL Long term Dermal DNEL Short term Dermal DNEL Long term Inhalation DNEL Short term Inhalation DNEL Long term Inhalat	xylene		Short term Inhalation		General population	Systemic
DNEL Long term Inhalation DNEL Long term Dermal DNEL Long term Inhalation DNEL Short term Inhalation DNEL Short term Inhalation DNEL Short term Dermal DNEL Short term Dermal DNEL Long term Dermal DNEL Long term Dermal DNEL Short term Dermal DNEL Short term Dermal DNEL Long term Dermal DNEL Long term Dermal DNEL Short term Dermal DNEL Short term Dermal DNEL Long term Dermal DNEL Long term Dermal DNEL Short term Inhalation DNEL Short term Inhalation DNEL Short term Inhalation DNEL Short term Dermal DNEL Long term Dermal DNEL Long term Dermal DNEL Long term Inhalation DNEL Short term Inhalation DNEL Short term Inhalation DNEL Short term Inhalation DNEL Long term Inhalation DNEL Short term Inhalation DNEL Long term Inhalation DNEL Short term Inhalation DNEL Short term Inhalation DNEL Short term Inhalation DNEL Long term Inhalation DNEL L		DNEL	Short term Inhalation	260 mg/m ³	General population	Local
DNEL DNEL DNEL Long term Oral Long term Inhalation DNEL DNEL DNEL DNEL DNEL DNEL DNEL DNEL		DNEL	Long term Dermal	125 mg/kg bw/day	General population	Systemic
DNEL DNEL DNEL DNEL DNEL DNEL DNEL DNEL			Long term Inhalation	65.3 mg/m³		Systemic
DNEL DNEL Long term Inhalation DNEL DNEL DNEL DNEL DNEL DNEL DNEL DNEL		DNEL	Long term Oral		General population	Systemic
DNEL DNEL Long term Inhalation DNEL Long term Dermal DNEL Long term Inhalation DNEL Short term Inhalation DNEL Long term Dermal DNEL Short term Inhalation DNEL Short term Inha			Long term Inhalation		Workers	Systemic
DNEL DNEL Long term Inhalation DNEL Long term Inhalation DNEL Short term Inhalation DNEL Cong term Inhalation DNEL Short term Inhalation DNEL Long term Dormal DNEL Long term Inhalation DNEL Long term Inhalation DNEL Long term Dormal DNEL Long term Inhalation DNEL Long term Inhalation DNEL Long term Inhalation DNEL Short term Inhalation DNEL Short term Inhalation DNEL Short term Inhalation DNEL Short term Dormal DNEL Short term Inhalation DNEL Cong term Inhalation DNE		DNEL	Short term Inhalation		Workers	Systemic
DNEL DNEL DNEL Long term Dermal DNEL DNEL DNEL DNEL DNEL DNEL DNEL DNEL			Long term Inhalation	221 mg/m³	Workers	Local
DNEL DNEL DNEL DNEL DNEL DNEL DNEL DNEL		DNEL	Short term Inhalation	442 mg/m³	Workers	Local
DNEL DNEL DNEL Long term Inhalation DNEL DNEL DNEL Long term Dermal DNEL DNEL DNEL DNEL DNEL DNEL DNEL DNEL		DNEL	Long term Dermal	212 mg/kg bw/day	Workers	Systemic
DNEL DNEL Long term Inhalation DNEL Long term Inhalation DNEL Long term Dermal DNEL Long term Dermal DNEL Long term Inhalation DNEL Long term Dermal DNEL Long term Inhalation DNEL Short term Inhalation DNEL Long term Dermal DNEL Long term Dermal DNEL Long term Dermal DNEL Long term Dermal DNEL Short term Dermal DNEL Long term Dermal DNEL Long term Dermal DNEL Long term Dermal DNEL Short term Dermal DNEL Long term Dermal DNEL Short term Inhalation DNEL Long term Inhalation DNEL Short term Inhalation DNEL Long term Inhalation DNEL DNEL DNEL DNEL DNEL DNEL DNEL DNEL		DNEL	Long term Inhalation	65.3 mg/m³	General population	Local
DNEL Long term Inhalation DNEL Long term Dermal DNEL Long term Dermal DNEL Long term Inhalation DNEL Long term Dermal DNEL Long term Inhalation DNEL Long term Inhalation DNEL Short term Inhalation DNEL Long term Dermal DNEL Long term Dermal DNEL Long term Dermal DNEL Long term Dermal DNEL Short term Dermal DNEL Long term Inhalation DNEL DNEL		DNEL	Short term Inhalation		General population	Local
DNEL DNEL DNEL Long term Oral Long term Dermal Long term Dermal DNEL DNEL DNEL DNEL DNEL DNEL DNEL DNEL		DNEL	Short term Inhalation	260 mg/m³	General population	Systemic
DNEL Long term Inhalation DNEL Long term Dermal DNEL Long term Dermal DNEL Short term Inhalation DNEL Short term Oral DNEL Long term Dermal DNEL Long term Oral DNEL Short term Dermal DNEL DNEL Long term Dermal DNEL DNEL Long term Dermal DNEL Short term Dermal DNEL Short term Dermal DNEL Dong term Dermal DNEL Short term Inhalation DNEL Long term		DNEL	Long term Inhalation	221 mg/m³	Workers	Local
DNEL DNEL DNEL Long term Dermal DNEL DNEL DNEL DNEL DNEL DNEL DNEL DNEL		DNEL	Long term Oral	12.5 mg/kg bw/day	General population	Systemic
DNEL DNEL DNEL DNEL DNEL DNEL DNEL DNEL		DNEL	Long term Inhalation	65.3 mg/m³	General population	Systemic
DNEL DNEL Short term Inhalation DNEL Short term Oral DNEL Short term Oral DNEL DNEL DNEL DNEL DNEL DNEL DNEL DNEL		DNEL	Long term Dermal	125 mg/kg bw/day	General population	Systemic
DNEL DNEL DNEL DNEL DNEL DNEL DNEL DNEL		DNEL	Long term Dermal	212 mg/kg bw/day	Workers	Systemic
methanol DNEL Short term Inhalation DNEL Short term Oral DNEL Long term Oral DNEL DNEL DNEL DNEL DNEL DNEL DNEL DNEL		DNEL	Long term Inhalation	221 mg/m³	Workers	Systemic
methanol DNEL DNEL DNEL DNEL DNEL DNEL DNEL DNEL		DNEL	Short term Inhalation	442 mg/m³	Workers	Local
DNEL DNEL Long term Oral Short term Dermal DNEL Long term Dermal DNEL Long term Dermal DNEL Long term Dermal DNEL Long term Inhalation DNEL DNEL DNEL Long term Inhalation DNEL Short term Inhalation DNEL Long term Inhalation DN		DNEL	Short term Inhalation	442 mg/m³	Workers	Systemic
DNEL DNEL DNEL DNEL DNEL DNEL DNEL DNEL	methanol	DNEL	Short term Oral	4 mg/kg bw/day	General population	Systemic
DNEL DNEL DNEL DNEL DNEL DNEL DNEL DNEL		DNEL	Long term Oral	4 mg/kg bw/day	General population	Systemic
DNEL DNEL DNEL DNEL DNEL DNEL DNEL DNEL		DNEL	Short term Dermal	4 mg/kg bw/day		Systemic
DNEL DNEL DNEL DNEL DNEL DNEL DNEL DNEL		DNEL	Long term Dermal	4 mg/kg bw/day	General population	Systemic
DNEL DNEL DNEL DNEL DNEL DNEL DNEL DNEL		DNEL	Short term Dermal	20 mg/kg bw/day	Workers	Systemic
DNEL DNEL DNEL DNEL DNEL DNEL DNEL DNEL		DNEL	Long term Dermal	20 mg/kg bw/day	Workers	Systemic
DNEL DNEL DNEL DNEL DNEL DNEL DNEL DNEL		DNEL	Short term Inhalation	26 mg/m ³	General population	Local
DNEL DNEL DNEL DNEL DNEL DNEL DNEL DNEL		DNEL	Long term Inhalation	26 mg/m³	General population	Local
DNEL DNEL Long term Inhalation Long term Inhalation DNEL DNEL DNEL DNEL DNEL DNEL Long term Inhalation B.3 mg/m³ Workers Systemic Syst		DNEL	Short term Inhalation	26 mg/m ³	General population	Systemic
DNEL DNEL DNEL DNEL DNEL DNEL DNEL DNEL		DNEL	Long term Inhalation	26 mg/m ³	General population	Systemic
DNEL DNEL Short term Inhalation DNEL Long term Inhalation DNEL Long term Inhalation DNEL Long term Inhalation DNEL Long term Inhalation trimethyl borate DNEL Long term Inhalation DNEL Long term Inhalation DNEL Long term Inhalation B.3 mg/m³ Workers Systemic Systemic Systemic Systemic Systemic Systemic DNEL Long term Inhalation B.3 mg/m³ Workers Systemic System		DNEL	Short term Inhalation	130 mg/m³	Workers	Local
DNEL DNEL Long term Inhalation trimethyl borate DNEL DNEL Long term Inhalation DNEL Long term Inhalation DNEL Long term Inhalation B.3 mg/m³ Workers Systemic Systemic Systemic		DNEL	Long term Inhalation		Workers	Local
trimethyl borate DNEL Long term Inhalation trimethyl borate DNEL Long term Inhalation		DNEL			Workers	Systemic
trimethyl borate DNEL Long term Inhalation 8.3 mg/m³ Workers Systemic		DNEL	Long term Inhalation		Workers	Systemic
	trimethyl borate	DNEL		8.3 mg/m ³	Workers	Systemic
		DNEL	Long term Dermal	392 mg/kg bw/day	Workers	

PNECs

Product/ingredient name	Type	Compartment Detail	Value	Method Detail
1-methoxy-2-propanol	-	Fresh water	10 mg/l	Assessment Factors
	-	Marine water	1 mg/l	Assessment Factors
	_	Sewage Treatment Plant	100 mg/l	Assessment Factors
	-	Fresh water sediment	41.6 mg/kg	Equilibrium Partitioning
	-	Marine water sediment	4.17 mg/kg	Equilibrium Partitioning
	_	Soil	2.47 mg/kg	Equilibrium Partitioning
ethylbenzene	_	Fresh water	0.1 mg/l	Assessment Factors
•	_	Marine water	0.01 mg/l	Assessment Factors
	_	Sewage Treatment Plant	9.6 mg/l	Assessment Factors
	_	Fresh water sediment	13.7 mg/kg dwt	Equilibrium Partitioning
	_	Marine water sediment	1.37 mg/kg dwt	Equilibrium Partitioning
	_	Soil	2.68 mg/kg dwt	Equilibrium Partitioning
	_	Secondary Poisoning	20 mg/kg	-
xylene	_		0.327 mg/l	-
•	_		0.327 mg/l	-

English (GB) Europe 8/18

Code : 00252860 Date of issue/Date of revision : 30 October 2023
SIGMAZINC 158 BINDER GREY

SECTION 8: Exposure controls/personal protection

	-	Sewage Treatment Plant	6.58 mg/l	-
	-	Fresh water sediment	12.46 mg/kg dwt	-
	-	Marine water sediment	12.46 mg/kg dwt	-
	-	Soil	2.31 mg/kg	-
methanol	-	Fresh water	20.8 mg/l	Assessment Factors
	-	Marine water	2.08 mg/l	Assessment Factors
	-	Sewage Treatment Plant	100 mg/l	Assessment Factors
	-	Fresh water sediment	77 mg/kg	Equilibrium Partitioning
	-	Marine water sediment	7.7 mg/kg	Equilibrium Partitioning
	-	Soil	100 mg/kg	Assessment Factors

8.2 Exposure controls

Appropriate engineering controls

: Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Individual protection measures

Hygiene measures

: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period.

Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection
Skin protection
Hand protection

: Chemical splash goggles. Use eye protection according to EN 166.

: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. When prolonged or frequently repeated contact may occur, a glove with a protection class of 6 (breakthrough time greater than 480 minutes according to EN 374) is recommended. When only brief contact is expected, a glove with a protection class of 2 or higher (breakthrough time greater than 30 minutes according to EN 374) is recommended. The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user's risk assessment.

Gloves

For prolonged or repeated handling, use the following type of gloves:

Recommended: polyvinyl alcohol (PVA), Viton®, butyl rubber May be used: nitrile rubber

Body protection

: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear antistatic protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves. Refer to European Standard EN 1149 for further information on material and design requirements and test methods.

Other skin protection

Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

English (GB) Europe 9/18

SIGMAZINC 158 BINDER GREY

SECTION 8: Exposure controls/personal protection

Respiratory protection

: Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Wear a respirator conforming to EN140. Filter type: organic vapour (Type A) and particulate filter P3

Environmental exposure controls

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties

Appearance

Physical state : Liquid. Colour : Grey.

Odour : Characteristic. **Odour threshold** : Not available.

Melting point/freezing point : May start to solidify at the following temperature: 0°C (32°F) This is based on data

for the following ingredient: water. Weighted average: -90.83°C (-131.5°F)

Initial boiling point and

boiling range

: >37.78°C

Flammability : Not available.

Upper/lower flammability or

explosive limits

: Greatest known range: Lower: 6% Upper: 44% (methanol)

Flash point Closed cup: 20°C

Auto-ignition temperature

Ingredient name	°C	°F	Method
1-methoxy-2-propanol	270	518	

Decomposition temperature

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

pН : Not applicable. insoluble in water. : Kinematic (40°C): >21 mm²/s **Viscosity**

Solubility(ies)

Media	Result
cold water	Not soluble

Partition coefficient: n-octanol/ : Not applicable.

water

Vapour pressure

	Vapour Pressure at 20°C			Vapour pressure at 5		
Ingredient name	mm Hg	kPa	Method	mm Hg	kPa	Method
rethanol	126.96	16.9				

Evaporation rate

English (GB)	Europe	10/18
	Luiope	10/10

SIGMAZINC 158 BINDER GREY

SECTION 9: Physical and chemical properties

Highest known value: 2.1 (methanol) Weighted average: 0.85compared with butyl

acetate

Relative density

1.18

Vapour density

: Highest known value: 3.7 (Air = 1) (ethylbenzene). Weighted average: 3.33 (Air =

Explosive properties

The product itself is not explosive, but the formation of an explosible mixture of

vapour or dust with air is possible.

Oxidising properties

: Product does not present an oxidizing hazard.

Particle characteristics

Median particle size

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity : No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability

: The product is stable.

: Not applicable.

10.3 Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid

: When exposed to high temperatures may produce hazardous decomposition products.

Refer to protective measures listed in sections 7 and 8.

10.5 Incompatible materials

: Keep away from the following materials to prevent strong exothermic reactions:

oxidising agents, strong alkalis, strong acids.

10.6 Hazardous decomposition products : Evolves hydrogen on contact with water. Depending on conditions, decomposition products may include the following materials: carbon oxides metal oxide/oxides

Evnosuro

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity				
Product/ingredient name	Result	Species		
rmethoxy-2-propanol	LC50 Inhalation Vapour	Rat		

Product/ingredient name	Result	Species	Dose	Exposure
	LC50 Inhalation Vapour	Rat	>7000 ppm	6 hours
	LD50 Dermal	Rabbit	13 g/kg	-
	LD50 Oral	Rat	5.2 g/kg	-
ethylbenzene	LC50 Inhalation Vapour	Rat	17.8 mg/l	4 hours
	LD50 Dermal	Rabbit	17.8 g/kg	-
	LD50 Oral	Rat	3.5 g/kg	-
xylene	LD50 Dermal	Rabbit	1.7 g/kg	-
	LD50 Oral	Rat	4.3 g/kg	-
methanol	LC50 Inhalation Vapour	Rat	64000 ppm	4 hours
	LD50 Dermal	Rabbit	15800 mg/kg	-
	LD50 Oral	Rat	5600 mg/kg	-
trimethyl borate	LD50 Dermal	Rabbit	1.98 g/kg	-
-	LD50 Oral	Rat	6.14 g/kg	-

Conclusion/Summary

: There are no data available on the mixture itself.

Irritation/Corrosion

English (GB)	Europe	11/18
English (SB)	Larope	11/10

SIGMAZINC 158 BINDER GREY

SECTION 11: Toxicological information

Product/ingredient name	Result	Species	Score	Exposure	Observation
xylene	Skin - Moderate irritant	Rabbit	-	24 hours 500 mg	-

Conclusion/Summary

Skin
 Eyes
 There are no data available on the mixture itself.
 Respiratory
 There are no data available on the mixture itself.

Sensitisation

Conclusion/Summary

Skin: There are no data available on the mixture itself.Respiratory: There are no data available on the mixture itself.

Mutagenicity

Conclusion/Summary: There are no data available on the mixture itself.

Carcinogenicity

Conclusion/Summary: There are no data available on the mixture itself.

Reproductive toxicity

Conclusion/Summary: There are no data available on the mixture itself.

Teratogenicity

Conclusion/Summary: There are no data available on the mixture itself.

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
1-methoxy-2-propanol	Category 3	-	Narcotic effects
xylene	Category 3	-	Respiratory tract irritation
methanol	Category 1	-	-
trimethyl borate	Category 1	-	optic nerve

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	Route of exposure	Target organs
ethylbenzene	Category 2	-	hearing organs
crystalline silica, respirable powder (<10 microns)	Category 1	inhalation	

Aspiration hazard

Product/ingredient name	Result	
ethylbenzene	ASPIRATION HAZARD - Category 1	
xylene	ASPIRATION HAZARD - Category 1	

Information on likely routes of exposure

: Not available.

Potential acute health effects

Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness or

dizziness.

Ingestion : Can cause central nervous system (CNS) depression.
 Skin contact : Defatting to the skin. May cause skin dryness and irritation.

Eye contact: No known significant effects or critical hazards. **Symptoms related to the physical, chemical and toxicological characteristics**

English (GB) Europe 12/18

SIGMAZINC 158 BINDER GREY

SECTION 11: Toxicological information

Inhalation : Adverse symptoms may include the following:

nausea or vomiting

headache

drowsiness/fatigue dizziness/vertigo unconsciousness reduced foetal weight increase in foetal deaths skeletal malformations

Ingestion : Adverse symptoms may include the following:

> reduced foetal weight increase in foetal deaths skeletal malformations

Skin contact : Adverse symptoms may include the following:

> irritation dryness cracking

reduced foetal weight increase in foetal deaths skeletal malformations

Eye contact : No specific data.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Short term exposure

Potential immediate

effects

: Not available.

Potential delayed effects: Not available.

Long term exposure

Potential immediate

effects

: Not available.

Potential delayed effects: Not available.

Potential chronic health effects

Not available.

Conclusion/Summary : Not available.

General : May cause damage to organs through prolonged or repeated exposure. Prolonged or

repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.

Carcinogenicity : No known significant effects or critical hazards. Mutagenicity : No known significant effects or critical hazards. Reproductive toxicity : May damage fertility. May damage the unborn child.

Other information : Not available.

Prolonged or repeated contact may dry skin and cause irritation. Contains methanol. Cannot be made non-poisonous. May be fatal or cause blindness if swallowed. Sanding and grinding dusts may be harmful if inhaled. Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Inhalation of vapour/aerosol concentrations above the recommended exposure limits causes headaches, drowsiness and nausea and may lead to unconsciousness or death. Avoid contact with skin and clothing.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

Not available.

11.2.2 Other information

Not available.

13/18 English (GB) **Europe**

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Commission Regulation (EU) 2020/878

Code : 00252860 Date of issue/Date of revision : 30 October 2023

SIGMAZINC 158 BINDER GREY

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
✓ methoxy-2-propanol	Acute LC50 23300 mg/l	Daphnia	48 hours
,	Acute LC50 >4500 mg/l	Fish	96 hours
	Fresh water		
ethylbenzene	Acute EC50 1.8 mg/l Fresh	Daphnia	48 hours
-	water		
	Chronic NOEC 1 mg/l Fresh	Daphnia -	-
	water	Ceriodaphnia dubia	
methanol	Acute LC50 13 mg/l Fresh	Fish	96 hours
	water		

Conclusion/Summary: There are no data available on the mixture itself.

12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
ethylbenzene	-	79 % - Readily - 10 days	-	-

Conclusion/Summary: There are no data available on the mixture itself.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
e thylbenzene	-	-	Readily
xylene	-	-	Readily

12.3 Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
 rmethoxy-2-propanol	<1	-	Low
ethylbenzene	3.6	79.43	Low
xylene	3.12	7.4 to 18.5	Low
methanol	-0.77	-	Low
trimethyl borate	-1.9	-	Low

12.4 Mobility in soil

Soil/water partition coefficient (Koc)

: Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Endocrine disrupting properties

Not available.

12.7 Other adverse effects

No known significant effects or critical hazards.

English (GB)	Europe	14/18
English (OD)	Ediope	17/10

SIGMAZINC 158 BINDER GREY

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product

Methods of disposal

: The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

Hazardous waste : Yes European waste catalogue (EWC)

Waste code	Waste designation
08 01 11*	waste paint and varnish containing organic solvents or other hazardous substances

Packaging

Methods of disposal

: The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Type of packaging		European waste catalogue (EWC)
Container	15 01 06	mixed packaging

Special precautions

: This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapour from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

14. Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number or ID number	UN1263	UN1263	UN1263	UN1263
14.2 UN proper shipping name	PAINT	PAINT	PAINT	PAINT
14.3 Transport hazard class(es)	3	3	3	3
14.4 Packing group	II	II	II	II
14.5 Environmental hazards	No.	Yes.	No.	No.
Marine pollutant substances	Not applicable.	Not applicable.	Not applicable.	Not applicable.

Additional information

ADR/RID : None identified.

English (GB)	Europo	15/18
	Europe	13/10

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Commission Regulation (EU) 2020/878

Code : 00252860 Date of issue/Date of revision : 30 October 2023

SIGMAZINC 158 BINDER GREY

14. Transport information

Tunnel code : (D/E)

ADN : The product is only regulated as an environmentally hazardous substance when transported in tank

vessels.

: None identified. **IMDG** IATA : None identified.

user

14.6 Special precautions for : Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in

the event of an accident or spillage.

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 Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions: Restricted to professional users.

on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

: Not applicable. **Explosive precursors**

Ozone depleting substances (1005/2009/EU)

Not listed.

Seveso Directive

This product is controlled under the Seveso Directive.

Danger criteria

Category

P₅c

15.2 Chemical safety assessment

: No Chemical Safety Assessment has been carried out.

English (GB) 16/18 **Europe**

SIGMAZINC 158 BINDER GREY

SECTION 16: Other information

▼ Indicates information that has changed from previously issued version.

Abbreviations and acronyms

ATE = Acute Toxicity Estimate

CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]

DNEL = Derived No Effect Level

EUH statement = CLP-specific Hazard statement

PNEC = Predicted No Effect Concentration

RRN = REACH Registration Number

PBT = Persistent, Bioaccumulative and Toxic

vPvB = Very Persistent and Very Bioaccumulative

ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road

ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway

IMDG = International Maritime Dangerous Goods

IATA = International Air Transport Association

Full text of abbreviated H statements

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H301	Toxic if swallowed.
H304	May be fatal if swallowed and enters airways.
H311	Toxic in contact with skin.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H360FD	May damage fertility. May damage the unborn child.
H370	Causes damage to organs.
H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated
	exposure.
H412	Harmful to aquatic life with long lasting effects.

Full text of classifications [CLP/GHS]

Acute Tox. 3	ACUTE TOXICITY - Category 3
Acute Tox. 4	ACUTE TOXICITY - Category 4
Aquatic Chronic 3	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3
Asp. Tox. 1	ASPIRATION HAZARD - Category 1
Eye Irrit. 2	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
Flam. Liq. 2	FLAMMABLE LIQUIDS - Category 2
Flam. Liq. 3	FLAMMABLE LIQUIDS - Category 3
Repr. 1B	REPRODUCTIVE TOXICITY - Category 1B
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
STOT RE 1	SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE -
	Category 1
STOT RE 2	SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE -
	Category 2
STOT SE 1	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE -
	Category 1
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE -
	Category 3

History

English (GB) Europe 17/7	English (GB)	Europe	17/18
--------------------------	--------------	--------	-------

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Commission Regulation (EU) 2020/878

Code : 00252860 Date of issue/Date of revision : 30 October 2023

SIGMAZINC 158 BINDER GREY

SECTION 16: Other information

Date of issue/ Date of

: 30 October 2023

revision

Date of previous issue : 16 August 2022

Prepared by : EHS Version : 15.01

Disclaimer

The information contained in this data sheet is based on present scientific and technical knowledge. The purpose of this information is to draw attention to the health and safety aspects concerning the products supplied by us, and to recommend precautionary measures for the storage and handling of the products. No warranty or guarantee is given in respect of the properties of the products. No liability can be accepted for any failure to observe the precautionary measures described in this data sheet or for any misuse of the products.

English (GB) Europe 18/18