

SAFETY DATA SHEET

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

1.1 Product identifier

Product name : INVERFOR SMALTO SEMILUCIDO N.80 NERO

Product code : 36263

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

Material uses : Paint or paint related material.

: Industrial use only.

1.3 Details of the supplier of the safety data sheet

Inver S.p.A. con Unico Socio

Via di Corticella 205 - Bologna

Phone: +39 051 6380411

e-mail address of person responsible for this SDS : minerbio.regulatory@sherwin.com

1.4 Emergency telephone number

National advisory body/Poison Centre

Telephone number : 111 (general public) /0344 892 111 (Medical professional (NHS) only)

Supplier

Telephone number : +39 051 6606811

Hours of operation : 08:30 - 17:30

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]

Skin Irrit. 2, H315

Eye Irrit. 2, H319

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.

2.2 Label elements

Hazard pictograms :



Signal word : Warning

Hazard statements : Causes skin irritation.
Causes serious eye irritation.

Precautionary statements

Prevention : Wear protective gloves. Wear eye or face protection. Wash thoroughly after handling.

SECTION 2: Hazards identification

Response	: Take off contaminated clothing and wash it before reuse. IF ON SKIN: Wash with plenty of water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice or attention.
Storage	: Not applicable.
Disposal	: Not applicable.
Hazardous ingredients	: 2-dimethylaminoethanol
Supplemental label elements	: Contains formaldehyde. May produce an allergic reaction. FOR INDUSTRIAL USE ONLY

Special packaging requirements

Not applicable.

2.3 Other hazards

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

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Other hazards which do not result in classification	: Risk of spontaneous combustion. Spraydust, cloth and other contaminated organic material should be wetted and placed in a sealed metal container. Store in a fire-proof place.
--	--

SECTION 3: Composition/information on ingredients

3.2 Mixture :

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
Methylated Melamine-Formaldehyde Polymer	CAS: 68002-20-0	≤5	Aquatic Chronic 3, H412	-	[1]
1-Methoxy-2-propanol	EC: 203-539-1 CAS: 107-98-2 Index: 603-064-00-3	≤5	Flam. Liq. 3, H226 STOT SE 3, H336	-	[1] [2]
2-Butoxyethanol	REACH #: 01-2119475108-36 EC: 203-905-0 CAS: 111-76-2 Index: 603-014-00-0	≤3	Acute Tox. 4, H302 Acute Tox. 3, H331 Skin Irrit. 2, H315 Eye Irrit. 2, H319	ATE [Oral] = 1200 mg/kg ATE [Inhalation (vapours)] = 3 mg/l	[1] [2]
2-Butanol	EC: 201-158-5 CAS: 78-92-2 Index: 603-127-00-5	≤3	Flam. Liq. 3, H226 Eye Irrit. 2, H319 STOT SE 3, H335 STOT SE 3, H336	-	[1] [2]
2-(2-Butoxyethoxy)-ethanol	REACH #: 01-2119475104-44 EC: 203-961-6 CAS: 112-34-5 Index: 603-096-00-8	≤3	Eye Irrit. 2, H319	-	[1] [2]
Dimethylethanol Amine	EC: 203-542-8 CAS: 108-01-0 Index: 603-047-00-0	≤1.6	Flam. Liq. 3, H226 Acute Tox. 4, H302 Acute Tox. 4, H312 Acute Tox. 3, H331 Skin Corr. 1B, H314 Eye Dam. 1, H318 STOT SE 3, H335	ATE [Oral] = 2000 mg/kg ATE [Dermal] = 1100 mg/kg ATE [Inhalation (vapours)] = 3 mg/l STOT SE 3, H335: C ≥ 5%	[1] [2]
Iso-Butanol	REACH #:	≤1.3	Flam. Liq. 3, H226	-	[1] [2]

SECTION 3: Composition/information on ingredients

Formaldehyde (max.)	01-2119484609-23 EC: 201-148-0 CAS: 78-83-1 Index: 603-108-00-1 REACH #: 01-2119488953-20 EC: 200-001-8 CAS: 50-00-0 Index: 605-001-00-5	<0.1	Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335 STOT SE 3, H336 Flam. Liq. 2, H225 Acute Tox. 3, H301 Acute Tox. 3, H311 Acute Tox. 3, H331 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 Muta. 2, H341 Carc. 1B, H350 See Section 16 for the full text of the H statements declared above.	ATE [Oral] = 100 mg/kg ATE [Dermal] = 270 mg/kg ATE [Inhalation (gases)] = 700 ppm Skin Corr. 1B, H314: C ≥ 25% Skin Irrit. 2, H315: 5% ≤ C < 25% Eye Dam. 1, H318: C ≥ 25% Eye Irrit. 2, H319: 5% ≤ C < 25% Skin Sens. 1, H317: C ≥ 0.2%	[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.

Type

[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.

SECTION 4: First aid measures

4.1 Description of first aid measures

- General** : In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and seek medical advice.
- 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. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

4.2 Most important symptoms and effects, both acute and delayed

SECTION 4: First aid measures

There are no data available on the mixture itself. Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]. See Sections 2 and 3 for details.

Exposure to component solvent vapour concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness.

Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin.

If splashed in the eyes, the liquid may cause irritation and reversible damage.

This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Specific treatments : No specific treatment.

See toxicological information (Section 11)

SECTION 5: Firefighting measures**5.1 Extinguishing media**

Suitable extinguishing media : Recommended: alcohol-resistant foam, CO₂, powders, water spray or mist.

Unsuitable extinguishing media : Do not use water jet.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture : Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard.

Hazardous combustion products : Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

5.3 Advice for firefighters

Special protective actions for fire-fighters : Cool closed containers exposed to fire with water. Do not release runoff from fire to drains or watercourses.

Special protective equipment for fire-fighters : Fire-fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.

SECTION 6: Accidental release measures

Due to the organic solvents content of the mixture:

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : Exclude sources of ignition and ventilate the area. Avoid breathing vapour or mist. Refer to protective measures listed in sections 7 and 8.

Keep unnecessary and unprotected personnel from entering.

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 non-emergency personnel".

SECTION 6: Accidental release measures

- 6.2 Environmental precautions** : Do not allow to enter drains or watercourses. If the product contaminates lakes, rivers, or sewers, inform the appropriate authorities in accordance with local regulations.
- 6.3 Methods and material for containment and cleaning up** : 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 (see Section 13). Preferably clean with a detergent. Avoid using solvents.
- 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** : Due to the organic solvents content of the mixture:
- Prevent the creation of flammable or explosive concentrations of vapours in air and avoid vapour concentrations higher than the occupational exposure limits. In addition, the product should only be used in areas from which all naked lights and other sources of ignition have been excluded. Electrical equipment should be protected to the appropriate standard. Keep away from heat, sparks and flame. No sparking tools should be used. Avoid contact with skin and eyes. Avoid the inhalation of dust, particulates, spray or mist arising from the application of this mixture. Avoid inhalation of dust from sanding. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Put on appropriate personal protective equipment (see Section 8). Never use pressure to empty. Container is not a pressure vessel. Always keep in containers made from the same material as the original one. Comply with the health and safety at work laws.
- Information on fire and explosion protection**
Vapours are heavier than air and may spread along floors. Vapours may form explosive mixtures with air.
- 7.2 Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations.
- Notes on joint storage**
Keep away from: oxidising agents, strong alkalis, strong acids.
- Additional information on storage conditions**
Observe label precautions. Store in a dry, cool and well-ventilated area. Keep away from heat and direct sunlight. Keep container tightly closed. Keep away from sources of ignition. No smoking. Prevent unauthorised access. Containers that have been opened must be carefully resealed and kept upright to prevent leakage.
- Contaminated absorbent material may pose the same hazard as the spilt product. Store above 5°C (42°F) Protect from frost.
- 7.3 Specific end use(s)**
- Recommendations** : Not available.
- Industrial sector specific solutions** : Not available.

Good housekeeping standards, regular safe removal of waste materials and regular maintenance of spray booth filters will minimise the risks of spontaneous combustion and other fire hazards.

SECTION 7: Handling and storage

Before use of this material please refer to the Exposure Scenario(s) if attached for the specific end use, control measures and additional PPE considerations.

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
1-Methoxy-2-propanol	EH40/2005 WELs (United Kingdom (UK), 1/2020). Absorbed through skin. STEL: 560 mg/m ³ 15 minutes. STEL: 150 ppm 15 minutes. TWA: 375 mg/m ³ 8 hours. TWA: 100 ppm 8 hours.
2-Butoxyethanol	EH40/2005 WELs (United Kingdom (UK), 1/2020). Absorbed through skin. STEL: 50 ppm 15 minutes. TWA: 25 ppm 8 hours. STEL: 246 mg/m ³ 15 minutes. TWA: 123 mg/m ³ 8 hours.
2-Butanol	EH40/2005 WELs (United Kingdom (UK), 1/2020). STEL: 462 mg/m ³ 15 minutes. STEL: 150 ppm 15 minutes. TWA: 308 mg/m ³ 8 hours. TWA: 100 ppm 8 hours.
2-(2-Butoxyethoxy)-ethanol	EH40/2005 WELs (United Kingdom (UK), 1/2020). TWA: 10 ppm 8 hours. TWA: 67.5 mg/m ³ 8 hours. STEL: 15 ppm 15 minutes. STEL: 101.2 mg/m ³ 15 minutes.
Dimethylethanol Amine	EH40/2005 WELs (United Kingdom (UK), 1/2020). STEL: 22 mg/m ³ 15 minutes. STEL: 6 ppm 15 minutes. TWA: 2 ppm 8 hours. TWA: 7.4 mg/m ³ 8 hours.
Iso-Butanol	EH40/2005 WELs (United Kingdom (UK), 1/2020). STEL: 231 mg/m ³ 15 minutes. STEL: 75 ppm 15 minutes. TWA: 154 mg/m ³ 8 hours. TWA: 50 ppm 8 hours.
Formaldehyde (max.)	EH40/2005 WELs (United Kingdom (UK), 1/2020). STEL: 2.5 mg/m ³ 15 minutes. STEL: 2 ppm 15 minutes. TWA: 2 ppm 8 hours. TWA: 2.5 mg/m ³ 8 hours.

Biological exposure indices

Product/ingredient name	Exposure indices
2-butoxyethanol	EH40/2005 BMGVs (United Kingdom (UK), 8/2018) BGV: 240 mmol/mol creatinine, butoxyacetic acid [in urine]. Sampling time: post shift.

SECTION 8: Exposure controls/personal protection

- 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.
 - Regular monitoring of all work areas should be carried out at all times, including areas that may not be equally ventilated.

DNELs/DMELs

Product/ingredient name	Type	Exposure	Value	Population	Effects
1-Methoxy-2-propanol	DNEL	Short term Inhalation	553.5 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	369 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	183 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	43.9 mg/m ³	General population [Consumers]	Systemic
	DNEL	Long term Dermal	78 mg/kg bw/day	General population [Consumers]	Systemic
	DNEL	Long term Oral	33 mg/kg bw/day	General population [Consumers]	Systemic
2-Butoxyethanol	DNEL	Short term Dermal	89 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Inhalation	1091 mg/m ³	Workers	Systemic
	DNEL	Short term Inhalation	246 mg/m ³	Workers	Local
	DNEL	Long term Dermal	125 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	98 mg/m ³	Workers	Systemic
	DNEL	Short term Inhalation	426 mg/m ³	General population	Systemic
	DNEL	Short term Oral	26.7 mg/kg bw/day	General population	Systemic
	DNEL	Short term Dermal	89 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	75 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	147 mg/m ³	General population	Local
	DNEL	Long term Inhalation	59 mg/m ³	General population	Systemic
	DNEL	Long term Oral	6.3 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	213 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	203 mg/kg bw/day	General population	Systemic
2-Butanol	DNEL	Long term Oral	15 mg/kg bw/day	General population	Systemic
	DNEL	Long term	600 mg/m ³	Workers	Systemic

SECTION 8: Exposure controls/personal protection

2-(2-Butoxyethoxy)-ethanol	DNEL	Inhalation Long term Dermal	405 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	62.5 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	62.5 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	83 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Inhalation	60.7 mg/m ³	General population [Consumers]	Local
	DNEL	Long term Inhalation	40.5 mg/m ³	General population [Consumers]	Systemic
	DNEL	Long term Inhalation	40.5 mg/m ³	General population [Consumers]	Local
	DNEL	Long term Dermal	50 mg/kg bw/day	General population [Consumers]	Systemic
	DNEL	Long term Oral	5 mg/kg bw/day	General population [Consumers]	Systemic
	DNEL	Short term Inhalation	101.2 mg/ m ³	Workers	Local
Dimethylethanol Amine	DNEL	Long term Inhalation	67.5 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	67.5 mg/m ³	Workers	Local
	DNEL	Long term Dermal	1.04 mg/ kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	7.4 mg/m ³	Workers	Systemic
	DNEL	Short term Dermal	5 mg/kg bw/day	Workers	Local
	DNEL	Short term Inhalation	22 mg/m ³	Workers	Local
	DNEL	Short term Inhalation	22 mg/m ³	Workers	Local

PNECs

Product/ingredient name	Compartment Detail	Value	Method Detail
1-Methoxy-2-propanol	Fresh water	10 mg/l	-
	Fresh water sediment	52.3 mg/kg	-
	Marine water sediment	5.2 mg/kg	-
	Soil	4.59 mg/kg	-
	Sewage Treatment Plant	100 mg/l	-
2-Butoxyethanol	Fresh water	8.8 mg/l	-
	Marine water	0.88 mg/l	-
	Sewage Treatment Plant	463 mg/l	-
	Fresh water sediment	34.6 mg/kg dwt	-
	Marine water sediment	3.46 mg/kg dwt	-
2-Butanol	Soil	2.33 mg/kg dwt	-
	Fresh water	47.1 mg/l	-
	Marine water	47.1 mg/l	-
	Fresh water sediment	196.19 mg/kg	-
	Marine water sediment	196.19 mg/kg	-
	Soil	11.58 mg/kg	-
	Secondary Poisoning	1000 mg/kg	-
	Sewage Treatment	761 mg/l	-
	Sewage Treatment	761 mg/l	-

SECTION 8: Exposure controls/personal protection

2-(2-Butoxyethoxy)-ethanol	Plant		
	Fresh water	1 mg/l	-
	Marine water	0.1 mg/l	-
	Fresh water sediment	4.9 mg/kg	-
	Marine water sediment	0.4 mg/kg	-
	Sewage Treatment	200 mg/l	-
	Plant		
Dimethylethanol Amine	Secondary Poisoning	56 mg/kg	-
	Soil	0.4 mg/kg	-
	Fresh water	1 mg/l	-
	Fresh water	0.0661 mg/kg wwt	-
	Fresh water sediment	0.0529 mg/kg	-
	Marine water	0.0066 mg/l	-
	Soil	0.0177 mg/kg	-
	Sewage Treatment	10 mg/l	-
	Plant		

8.2 Exposure controls

Appropriate engineering controls

- : Provide adequate ventilation. Where reasonably practicable, this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and solvent vapours below the OEL, suitable respiratory protection must be worn.
- : Users are advised to consider national Occupational Exposure Limits or other equivalent values.

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

- : Use safety eyewear designed to protect against splash of liquids.

Skin protection

Hand protection

Gloves

- : Wear suitable gloves tested to EN374.
- : Gloves for short term exposure/splash protection (less than 10 min.): Nitrile>0.12 mm
Gloves for splash protection need to be changed immediately when in contact with chemicals.
Gloves for repeated or prolonged exposure (breakthrough time>480 min.): Butyl gloves>0.3 mm
Due to many conditions (e.g. temperature, abrasion) the practical usage of a chemical protective glove in practice may be much shorter than the permeation time determined through testing.
The recommendation for the type or types of glove to use when handling this product is based on information from the following source: Solvent resin manufacturers and European Solvents Industry Group (ESIG)
There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals.
The breakthrough time must be greater than the end use time of the product.
The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed.
Gloves should be replaced regularly and if there is any sign of damage to the glove material.
Always ensure that gloves are free from defects and that they are stored and used correctly.
The performance or effectiveness of the glove may be reduced by physical/chemical damage and poor maintenance.
Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred.

SECTION 8: Exposure controls/personal protection

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.

- Body protection** : Personnel should wear protective clothing.
- : 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.
- 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.
- Respiratory protection** : Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Recommended: A2P2 (EN14387). 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.
- Environmental exposure controls** : Do not allow to enter drains or watercourses.

Before use of this material please refer to the Exposure Scenario(s) if attached for the specific end use, control measures and additional PPE considerations. The information contained in this safety data sheet does not constitute the user's own assessment of workplace risks, as required by other health and safety legislation. The provisions of the national health and safety at work regulations apply to the use of this product at work.

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** : Black.
- Odour** : Paint
- Odour threshold** : Not Available (Not Tested).
- pH** : 7.2
- Melting point/freezing point** : Not relevant/applicable due to nature of the product.
- Initial boiling point and boiling range** : 97°C
- Flash point** : Closed cup: 62°C [Pensky-Martens Closed Cup]
- Evaporation rate** : 89 (butyl acetate = 1)
- Flammability** : Not relevant/applicable due to nature of the product.
- Lower and upper explosion limit** : LEL: 0.9% (2-(2-Butoxyethoxy)-ethanol)
UEL: 13.74% (1-Methoxy-2-propanol)
- Vapour pressure** : 2.3 kPa (17.5 mm Hg)
- Relative vapour density** : 1 [Air = 1]
- Relative density** : 1.18
- Solubility(ies)** :

Media	Result
cold water	Partially soluble

Partition coefficient: n-octanol/ water : Not relevant/applicable due to nature of the product.

Auto-ignition temperature :

SECTION 9: Physical and chemical properties

Ingredient name	°C	°F	Method
2-(2-Butoxyethoxy)-ethanol	210	410	
2-Butoxyethanol	230	446	
1-Methoxy-2-propanol	286	546.8	
Dimethylethanol Amine	295	563	
2-Butanol	350	662	
Iso-Butanol	400	752	

- Decomposition temperature** : Not relevant/applicable due to nature of the product.
- Viscosity** : Kinematic (40°C): >20.5 mm²/s
- Explosive properties** : Under normal conditions of storage and use, hazardous reactions will not occur.
- Oxidising properties** : Under normal conditions of storage and use, hazardous reactions will not occur.
- Particle characteristics**
- Median particle size** : Not relevant/applicable due to nature of the product.

9.2 Other information

- Heat of combustion** : 4.285 kJ/g

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** : Stable under recommended storage and handling conditions (see Section 7).
- 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.
- 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** : Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

SECTION 11: Toxicological information

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

There are no data available on the mixture itself. Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]. See Sections 2 and 3 for details.

Exposure to component solvent vapour concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness.

Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin.

If splashed in the eyes, the liquid may cause irritation and reversible damage.

This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Acute toxicity

SECTION 11: Toxicological information

Product/ingredient name	Result	Species	Dose	Exposure
1-Methoxy-2-propanol	LD50 Dermal	Rabbit	13 g/kg	-
	LD50 Oral	Rat	6600 mg/kg	-
2-Butoxyethanol	LCLo Inhalation Vapour	Guinea pig	>3.1 mg/l	1 hours
	LD50 Dermal	Guinea pig	>2000 mg/kg	-
	LD50 Oral	Rat	1300 mg/kg	-
2-Butanol	LC50 Inhalation Gas.	Rat	8000 ppm	4 hours
	LC50 Inhalation Vapour	Rat	48500 mg/m ³	4 hours
	LD50 Oral	Rat	2054 mg/kg	-
2-(2-Butoxyethoxy)-ethanol	LD50 Dermal	Rabbit	2700 mg/kg	-
	LD50 Oral	Rat	4500 mg/kg	-
Dimethylethanol Amine	LC50 Inhalation Gas.	Rat	1641 ppm	4 hours
	LD50 Oral	Rat	2 g/kg	-
Iso-Butanol	LC50 Inhalation Vapour	Rat	19200 mg/m ³	4 hours
	LD50 Dermal	Rabbit	3400 mg/kg	-
	LD50 Oral	Rat	2460 mg/kg	-
Formaldehyde (max.)	LC50 Inhalation Gas.	Rat	250 ppm	4 hours
	LD50 Dermal	Rabbit	270 mg/kg	-
	LD50 Oral	Rat	100 mg/kg	-

Acute toxicity estimates

Route	ATE value
Oral	33067.79 mg/kg
Dermal	84640.81 mg/kg
Inhalation (vapours)	72.31 mg/l

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
1-Methoxy-2-propanol	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	500 mg	-
2-Butoxyethanol	Eyes - Moderate irritant	Rabbit	-	24 hours 100 mg	-
	Eyes - Severe irritant	Rabbit	-	100 mg	-
2-Butanol	Skin - Mild irritant	Rabbit	-	500 mg	-
	Eyes - Severe irritant	Rabbit	-	0.1 MI	-
2-(2-Butoxyethoxy)-ethanol	Eyes - Moderate irritant	Rabbit	-	24 hours 20 mg	-
	Eyes - Severe irritant	Rabbit	-	20 mg	-
Dimethylethanol Amine	Eyes - Severe irritant	Rabbit	-	5 uL	-
	Skin - Mild irritant	Rabbit	-	445 mg	-
Formaldehyde (max.)	Eyes - Mild irritant	Human	-	6 minutes 1 ppm	-
	Eyes - Severe irritant	Rabbit	-	24 hours 750	-

SECTION 11: Toxicological information

	Eyes - Severe irritant	Rabbit	-	ug	-
	Skin - Mild irritant	Human	-	750 ug	-
				72 hours 150	-
	Skin - Mild irritant	Rabbit	-	ug l	-
	Skin - Moderate irritant	Rabbit	-	540 mg	-
				24 hours 50	-
	Skin - Severe irritant	Human	-	mg	-
	Skin - Severe irritant	Rabbit	-	0.01 %	-
	Skin - Severe irritant	Rabbit	-	0.8 %	-
				24 hours 2	-
				mg	

Conclusion/Summary : Not available.

Sensitisation

No data available

Conclusion/Summary : Not available.

Mutagenicity

No data available

Carcinogenicity

No data available

Reproductive toxicity

No data available

Teratogenicity

No data available

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
1-Methoxy-2-propanol	Category 3	-	Narcotic effects
2-Butanol	Category 3	-	Respiratory tract irritation
	Category 3		Narcotic effects
Dimethylethanol Amine	Category 3	-	Respiratory tract irritation
Iso-Butanol	Category 3	-	Respiratory tract irritation
	Category 3		Narcotic effects

Specific target organ toxicity (repeated exposure)

No data available

Aspiration hazard

No data available

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

Not available.

11.2.2 Other information

Not available.

SECTION 12: Ecological information

12.1 Toxicity

There are no data available on the mixture itself.
Do not allow to enter drains or watercourses.

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]. See Sections 2 and 3 for details.

Product/ingredient name	Result	Species	Exposure
2-Butoxyethanol	Acute EC50 >1000 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 hours
	Acute LC50 800000 µg/l Marine water	Crustaceans - <i>Crangon crangon</i>	48 hours
	Acute LC50 1250 ppm Marine water	Fish - <i>Menidia beryllina</i>	96 hours
2-Butanol	Acute EC50 4227 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 hours
	Acute LC50 3670000 µg/l Fresh water	Fish - <i>Pimephales promelas</i>	96 hours
2-(2-Butoxyethoxy)-ethanol	Acute LC50 1300 ppm Fresh water	Fish - <i>Lepomis macrochirus</i>	96 hours
Iso-Butanol	Acute LC50 600 mg/l Marine water	Crustaceans - <i>Artemia salina</i>	48 hours
	Acute LC50 1030000 µg/l Fresh water	Daphnia - <i>Daphnia magna</i> - Neonate	48 hours
	Acute LC50 1330000 µg/l Fresh water	Fish - <i>Oncorhynchus mykiss</i>	96 hours
Formaldehyde (max.)	Chronic NOEC 4 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	21 days
	Acute EC50 3.48 mg/l Fresh water	Algae - <i>Desmodesmus subspicatus</i>	72 hours
	Acute EC50 0.442 mg/l Marine water	Algae - <i>Ulva pertusa</i>	96 hours
	Acute EC50 3.26 mg/l Fresh water	Daphnia - <i>Daphnia magna</i> - Embryo	48 hours
	Acute LC50 11.41 mg/l Fresh water	Crustaceans - <i>Ceriodaphnia dubia</i>	48 hours
	Acute LC50 1.41 ppm Fresh water	Fish - <i>Oncorhynchus mykiss</i>	96 hours
	Chronic NOEC 1000 µg/l Marine water	Algae - <i>Phyllospora comosa</i> - Embryo	96 hours
	Chronic NOEC 3000 ppm Fresh water	Crustaceans - <i>Astacus astacus</i> - Egg	21 days
	Chronic NOEC 1.56 mg/l Fresh water	Fish - <i>Oreochromis niloticus</i> - Fingerling	12 weeks

12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
No data available				

Conclusion/Summary : Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
2-Butoxyethanol	-	-	Readily
2-(2-Butoxyethoxy)-ethanol	-	-	Readily
Iso-Butanol	-	-	Readily

12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
No data available			

12.4 Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Mobility : Not available.

SECTION 12: Ecological information

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.

SECTION 13: Disposal considerations

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 paint and varnish containing organic solvents or other hazardous substances 08 01 11*

Disposal considerations : Do not allow to enter drains or watercourses. Dispose of according to all federal, state and local applicable regulations. If this product is mixed with other wastes, the original waste product code may no longer apply and the appropriate code should be assigned. For further information, contact your local waste authority.

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.

Disposal considerations : Using information provided in this safety data sheet, advice should be obtained from the relevant waste authority on the classification of empty containers. Empty containers must be scrapped or reconditioned. Dispose of containers contaminated by the product in accordance with local or national legal provisions.

European waste catalogue (EWC) : packaging containing residues of or contaminated by hazardous substances 15 01 10*

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. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	IMDG	IATA
14.1 UN number or ID number	Not regulated.	Not regulated.	Not regulated.
14.2 UN proper shipping name	-	-	-
14.3 Transport Hazard Class(es)/ Label(s)	-	-	-

SECTION 14: Transport information

14.4 Packing group	-	-	-
14.5 Environmental hazards	No.	No.	No.
Additional information	-	-	-

This mixture is not classified as dangerous according to international transport regulations (ADR/RID, IMDG, ICAO/IATA).

14.6 Special precautions for user : **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.

Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (sea, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport. People loading and unloading dangerous goods must be trained on all of the risks deriving from the substances and on all actions in case of emergency situations.

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.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Product/ingredient name	%	Designation [Usage]
INVERFOR SMALTO SEMILUCIDO N.80 NERO	≥90	3
2-(2-butoxyethoxy)ethanol	≤3	55 [Consumer paint]
formaldehyde	<0.1	72

Labelling : Not applicable.

Other EU regulations

VOC content (2010/75/EU) : 11.5 w/w
 136 g/l

Explosive precursors : Not applicable.

Seveso Directive

This product is not controlled under the Seveso Directive.

National regulations

SECTION 15: Regulatory information

Product/ingredient name	List name	Name on list	Classification	Notes
Formaldehyde (max.)	UK Occupational Exposure Limits EH40 - WEL	formaldehyde; methanal	Carc.	-
crystalline silica, respirable powder	UK Occupational Exposure Limits EH40 - WEL	silica, respirable crystalline respirable fraction	Carc.	-

15.2 Chemical safety assessment : No Chemical Safety Assessment has been carried out.

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]
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
EUH statement = CLP-specific Hazard statement
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number
vPvB = Very Persistent and Very Bioaccumulative
N/A = Not available

Key literature references and sources for data : Regulation (EC) No. 1272/2008 [CLP]
ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road
IATA = International Air Transport Association
IMDG = International Maritime Dangerous Goods
Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Commission Regulation (EU) 2020/878
Directive 2012/18/EU, and relative amendments & additions
Directive 2008/98/EC, and relative amendments & additions
Directive 2009/161/EU, and relative amendments & additions
CEPE Guidelines

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Skin Irrit. 2, H315 Eye Irrit. 2, H319	Calculation method Calculation method

Full text of abbreviated H statements : H225 Highly flammable liquid and vapour.
H226 Flammable liquid and vapour.
H301 Toxic if swallowed.
H302 Harmful if swallowed.
H311 Toxic 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.
H331 Toxic if inhaled.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.
H341 Suspected of causing genetic defects.
H350 May cause cancer.
H412 Harmful to aquatic life with long lasting effects.

SECTION 16: Other information

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
	: Carc. 1B	CARCINOGENICITY - Category 1B
	: Eye Dam. 1	SERIOUS EYE DAMAGE/EYE IRRITATION - 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
	: Muta. 2	GERM CELL MUTAGENICITY - Category 2
	: Skin Corr. 1B	SKIN CORROSION/IRRITATION - Category 1B
	: Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
	: Skin Sens. 1	SKIN SENSITISATION - Category 1
	: STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3

Date of printing : 08, Dec, 2023.

Date of issue/ Date of revision : 08, Dec, 2023

Date of previous issue : 25, Sep, 2023

: If there is no previous validation date please contact your supplier for more information.

Version : 9

Notice to reader

In accordance with Regulation (EC) 1907/2006, REACH Regulation, Articles 31, 37, any required hazard-related information on the use of substances received as downstream user will be sent forward. Consequently, the safety data sheets for some products will contain a SUMI - Safe Use of Mixture Information - attached to the safety data sheet.

SUMI(s) will be added to the SDS for products if both the following conditions are met:

- ***The product is classified as hazardous for health***
- ***The product contains one or more REACH-registered substances for which extended safety data sheets (exposure scenarios) have been provided***

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become make themselves aware of and understand the data contained in this SDS and any hazards that may be associated with the product. This information is provided in good faith and believed to be accurate as of the effective date mentioned herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can may change later the composition, hazards and risks of the product. Products shall should not be repackaged, modified, or tinted except as specifically instructed by the manufacturer, including but not limited to, the incorporation of products not specified by the manufacturer, or the use or addition of products in proportions not specified by the manufacturer. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for the use of the product are not under the manufacturer's control of the manufacturer; the customer/buyer/user is responsible to for determine determining the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS, without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be held responsible for SDSs obtained from any other source.

36263