Safety data sheet

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

1.1. Product identifier

Code:	**C00118**
Product name	**SMALTO BIANCO per ritocchi**

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

Intended use	**Nitro enamel, for touch in the home and "do it yourself."**

1.3. Details of the supplier of the safety data sheet

Name	**PIGAL s.p.a.**
Full address	**Via G. Rossa, 2**
District and Country	**40053 VALSAMOGGIA - Crespellano (BO)** **ITALIA**
	Tel. +39 051969068
	Fax +39 051969353
e-mail address of the competent person	
responsible for the Safety Data Sheet	**health.safety@pigal.it; pigalab@pigal.it**

1.4. Emergency telephone number

For urgent inquiries refer to	**+39 051969068 ore ufficio (8.30-13; 14-17.30) 118 (contattare il centro antiveleni più vicino)**

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

2.1.1. Regulation 1272/2008 (CLP) and following amendments and adjustments.

Hazard classification and indication:

Flam. Liq. 2	H225
Eye Dam. 1	H318
STOT SE 3	H336
Aquatic Chronic 3	H412

2.1.2. 67/548/EEC and 1999/45/EC Directives and following amendments and adjustments.

Danger Symbols:
F-Xi
R phrases:
11-36-52/53-66-67

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

2.2. Label elements.

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H225	Highly flammable liquid and vapour.
H318	Causes serious eye damage.
H336	May cause drowsiness or dizziness.
H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P210	Keep away from heat / sparks / open flames / hot surfaces. No smoking.
P233	Keep container tightly closed.
P280	Wear protective gloves / protective clothing / eye protection / face protection.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER or doctor / physician.
P501	Dispose of contents / container according to local regulations.

Contains: ISOBUTYL ALCOHOL
PROPAN-2-OL
ETHYL ACETATE
NAPHTA SOLVENT (PETROLEUM), LIGHT AROMATIC

2.3. Other hazards.

Information not available.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	Conc. %.	Classification 67/548/EEC.	Classification 1272/2008 (CLP).
ISOBUTYL ACETATE			

CAS. 110-19-0 EC. 203-745-1 INDEX. 607-026-00-7 Reg. no. 01-2119488971-22	25 - 30	R66, R67, F R11, Note C	Flam. Liq. 2 H225, EUH066, Note C
PROPAN-2-OL			
CAS. 67-63-0 EC. 200-661-7 INDEX. 603-117-00-0 Reg. no. 01-2119457558-25	10 - 12,5	R67, F R11, Xi R36	Flam. Liq. 2 H225, Eye Irrit. 2 H319, STOT SE 3 H336
2-BUTOXYETHANOL			
CAS. 111-76-2 EC. 203-905-0 INDEX. 603-014-00-0 Reg. no. 01-2119475108-36	5 - 7	Xn R20/21/22, Xi R36/38	Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Eye Irrit. 2 H319, Skin Irrit. 2 H315
NAPHTA SOLVENT (PETROLEUM), LIGHT AROMATIC			
CAS. 64742-95-6 EC. 265-199-0 INDEX. 649-356-00-4 Reg. no. 01-2119455851-35	3 - 5	R10, R66, R67, Xn R65, Xi R37, N R51/53, Note P	Flam. Liq. 3 H226, Asp. Tox. 1 H304, STOT SE 3 H335, STOT SE 3 H336, Aquatic Chronic 2 H411, EUH066, Note P
ETHYL ACETATE			
CAS. 141-78-6 EC. 205-500-4 INDEX. 607-022-00-5 Reg. no. 01-2119475103-46	3 - 5	R66, R67, F R11, Xi R36	Flam. Liq. 2 H225, Eye Irrit. 2 H319, STOT SE 3 H336, EUH066
ISOBUTYL ALCOHOL			
CAS. 78-83-1 EC. 201-148-0 INDEX. 603-108-00-1 Reg. no. 01-2119484609-23	3 - 5	R10, R67, Xi R37/38, Xi R41	Flam. Liq. 3 H226, Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335, STOT SE 3 H336
XYLENE (MIXTURE OF ISOMERS)			
CAS. 1330-20-7 EC. 215-535-7 INDEX. 601-022-00-9 Reg. no. 01-2119488216-32	0,5 - 0,95	R10, Xn R20/21, Xi R38, Note C	Flam. Liq. 3 H226, Acute Tox. 4 H312, Acute Tox. 4 H332, Asp. Tox. 1 H304, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Note C
1-METHOXY-2-PROPANOL ACETATE			
CAS. 108-65-6 EC. 203-603-9 INDEX. 607-195-00-7 Reg. no. 01-2119475791-29	0 - 0,05	R10	Flam. Liq. 3 H226, Eye Irrit. 2 H319

Note: Upper limit is not included into the range.

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.
T+ = Very Toxic(T+), T = Toxic(T), Xn = Harmful(Xn), C = Corrosive(C), Xi = Irritant(Xi), O = Oxidizing(O), E = Explosive(E), F+ = Extremely

Flammable(F+), F = Highly Flammable(F), N = Dangerous for the Environment(N)

Other components: 7% - 10% Titanium Dioxide (REACH No .: 01-2119489379-17, CAS: 13463-67-7, EC: 236-675-5)
substance with a Community exposure limit in the workplace.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention immediately. Wash contaminated clothing before using it again.
INHALATION: Remove to open air. If the subject stops breathing, administer artificial respiration. Get medical advice/attention immediately.
INGESTION: Get medical advice/attention immediately. Do not induce vomiting. Do not administer anything not explicitly authorised by a doctor.

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

For symptoms and effects caused by the contained substances, see chap. 11.

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

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

United Kingdom	EH40/2005 Workplace exposure limits. Containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations (as amended).
Éire	Code of Practice Chemical Agent Regulations 2011.
OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
TLV-ACGIH	ACGIH 2012

ISOBUTYL ACETATE

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
WEL	UK		150		187	
OEL	IRL		150		187	
TLV-ACGIH			150			

PROPAN-2-OL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	IRL		200		400	SKIN
TLV-ACGIH		492	200	983	400	
WEL	UK	999	400	1250	500	

2-BUTOXYETHANOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
WEL	UK		25		50	
OEL	IRL		20		50	
OEL	EU	98	20	246	50	
TLV-ACGIH			20			

Predicted no-effect concentration - PNEC.

Normal value for the terrestrial compartment	3,13	mg/kg
Normal value in fresh water	8,8	mg/l
Normal value for water, intermittent release	463	mg/l
Normal value in marine water	0,88	mg/l
Normal value for fresh water sediment	34,6	mg/kg
Normal value for marine water sediment	3,46	mg/kg

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers. Acute local	Acute systemic	Chronic local	Chronic systemic	Effects on workers Acute local	Acute systemic	Chronic local	Chronic systemic
Oral.			VND	3,2 mg/kg				
Inhalation.			VND	49 mg/m3			VND	98 mg/m3
Skin.			VND	38 mg/kg			VND	75 mg/kg

NAPHTA SOLVENT (PETROLEUM), LIGHT AROMATIC

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers. Acute local	Acute systemic	Chronic local	Chronic systemic	Effects on workers Acute local	Acute systemic	Chronic local	Chronic systemic
Oral.			VND	11 mg/kg bw/d				
Inhalation.			VND	32 mg/m3			VND	150 mg/m3
Skin.			VND	11 mg/kg bw/d			VND	25 mg/kg bw/d

ETHYL ACETATE

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
WEL	UK		200		400
OEL	IRL		400		
TLV-ACGIH		1441	400		

Predicted no-effect concentration - PNEC.		
Normal value for the food chain (secondary poisoning)	0,2	g/kg
Normal value for the terrestrial compartment	0,24	mg/kg
Normal value in fresh water	0,26	mg/l
Normal value for water, intermittent release	1,65	mg/l
Normal value in marine water	0,026	mg/l
Normal value for fresh water sediment	1,25	mg/kg
Normal value for marine water sediment	0,125	mg/kg
Normal value of STP microorganisms	650	mg/l

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers.				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral.			VND	4,5 mg/kg				
Inhalation.	734 mg/m3	734 mg/m3	367 mg/m3	367 mg/m3	1468 mg/m3	1468 mg/m3	734 mg/m3	734 mg/m3
Skin.			VND	37 mg/kg			VND	63 mg/kg

ISOBUTYL ALCOHOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
WEL	UK		50		75
OEL	IRL		50		75
TLV-ACGIH			50		

XYLENE (MIXTURE OF ISOMERS)

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
WEL	UK		50		100
OEL	IRL		50		100
OEL	EU	221	50	442	100
TLV-ACGIH			100		150

1-METHOXY-2-PROPANOL ACETATE

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
WEL	UK		50		100
OEL	IRL		50		100
OEL	EU	275	50	550	100

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

HAND PROTECTION
Protect hands with category III work gloves (see standard EN 374).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION
Wear category I professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.

EYE PROTECTION
Wear a hood visor or protective visor combined with airtight goggles (see standard EN 166).

RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a type AX filter, whose limit of use will be defined by the manufacturer (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance	liquid
Colour	white
Odour	characteristic
Odour threshold.	Not available.
pH.	Not available.
Melting point / freezing point.	Not available.
Initial boiling point.	> 35 °C.
Boiling range.	Not available.
Flash point.	< 23 °C.
Evaporation Rate	Not available.
Flammability of solids and gases	Not available.
Lower inflammability limit.	Not available.
Upper inflammability limit.	Not available.
Lower explosive limit.	0,7 % (V/V).
Upper explosive limit.	15 % (V/V).
Vapour pressure.	Not available.
Vapour density	Not available.
Relative density.	1,02 ÷ 1,06
Solubility	soluble in organic solvents

Partition coefficient: n-octanol/water	Not available.
Auto-ignition temperature.	> 224 °C.
Decomposition temperature.	Not available.
Viscosity	Not available.
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.

VOC (Directive 1999/13/EC) :	58,00 %
VOC (volatile carbon) :	0
Can pressure:	N.A.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

1-METHOXY-2-PROPANOL ACETATE: stable but with the air it may slowly develop peroxides that explode with an increase in temperature.
2-BUTOXYETHANOL: decomposes in the presence of heat.
2-PROPANOLO: Reagisce con acidi e agenti ossidanti forti.
ETHYL ACETATE: decomposes slowly into acetic acid and ethanol under the effect of light, air and water.
ISOBUTYL ACETATE: decomposes under the effect of heat. Attacks various types of plastic material.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

The vapours may also form explosive mixtures with the air.

XYLENE (MIXTURE OF ISOMERS): stable, but may develop violent reactions in the presence of strong oxidising agents such as sulphuric and nitric acids and perchlorates. May form explosive mixtures with the air.
1-METHOXY-2-PROPANOL ACETATE: may react violently with oxidising agents and strong acids and alkaline metals.
2-BUTOXYETHANOL: can react dangerously with: aluminium, oxidising agents. Forms peroxide with air.
ETHYL ACETATE: risk of explosion on contact with: metals, alkalis, hydrides. oleum. can react violently with: fluoride, strong oxidising agents, chlorosulfuric acid, potassium tert-butoxide. Forms explosive mixtures with the air.
ISOBUTYL ACETATE: risk of explosion on contact with: strong oxidising agents. Can react violently with: alkaline hydroxides, potassium tert-butoxides. Forms explosive mixtures with the air.

10.4. Conditions to avoid.

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

1-METHOXY-2-PROPANOL ACETATE: store in an inert atmosphere, sheletered from moisture because it hydrolises easily.
2-BUTOXYETHANOL: avoid exposure to sources of heat and naked flames.
ETHYL ACETATE: avoid exposure to light, sources of heat and naked flames.
ISOBUTYL ACETATE: avoid exposure to sources of heat and naked flames.

10.5. Incompatible materials.

1-METHOXY-2-PROPANOL ACETATE: oxidising agents, strong acids and alkaline metals.
2-PROPANOLO: Acidi forti e con agenti ossidanti. Metalli alcalini. Alluminio. Ferro. Ammine.
ETHYL ACETATE: acids and bases, strong oxidising agents; aluminium and some plastics, nitrates and chlorosulphuric acid.

ISOBUTYL ACETATE: strong oxidising agents, nitrates, strong bases and acids.

10.6. Hazardous decomposition products.

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

2-BUTOXYETHANOL: hydrogen.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
This product contains highly volatile substances, which may cause serious depression of the central nervous system (CNS) and have negative effects, such as drowsiness, dizziness, slow reflexes, narcosis.

1-METHOXY-2-PROPANOL ACETATE: the main way of entry is the skin, whereas the respiratory way is less important owing to the low vapour tension of the product. Concentrations above 100 ppm cause eye irritation, nose and oropharynx. At 1000 ppm disturbance in the equilibrium and severe eye irritation is observed. Clinical and biological examinations carried out on exposed volunteers revealed no anomalies. Acetate produces greater skin and ocular irritation on direct contact. No chronic effects have been reported in man.
CMR assessment - Mutagenicity: In vitro tests did not show mutagenic effects.
May cause respiratory irritation.
If swallowed, it can cause discomfort.
The liquid may irritate the skin.
Irritating to eyes, it may cause redness and pain.

2-Butoxyethanol - Causes serious eye irritation. Skin irritation.

XYLENE (MIXTURE OF ISOMERS)
LD50 (Dermal). > 1700 mg/kg Rabbit
LC50 (Inhalation). 5000 ppm/4h Rat

1-METHOXY-2-PROPANOL ACETATE
LD50 (Oral). > 5000 mg/kg Rat

ISOBUTYL ALCOHOL
LD50 (Oral). 2830 mg/kg Rat
LD50 (Dermal). > 2000 mg/kg Rabbit
LC50 (Inhalation). 19,2 mg/l/4h Rat

2-BUTOXYETHANOL
LD50 (Oral). 1746 mg/kg Rat
LD50 (Dermal). 6411 mg/kg Pig
LC50 (Inhalation). 450 ppm/4h Rat - female

PROPAN-2-OL
LD50 (Oral). 4710 mg/kg Rat
LD50 (Dermal). 12800 mg/kg Rat
LC50 (Inhalation). 72,6 mg/l/4h Rat

ETHYL ACETATE
LD50 (Oral). 4100 mg/kg Rabbit
LD50 (Dermal). > 20000 mg/kg bw Rabbit
LC50 (Inhalation). > 1600 mg/l/48h Rat

NAPHTA SOLVENT (PETROLEUM), LIGHT AROMATIC
LD50 (Oral). > 3492 mg/kg Rat
LD50 (Dermal). > 3160 mg/kg Rabbit
LC50 (Inhalation). 6193 mg/l/4h Rat

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

ISOBUTYL ALCOHOL
LC50 - (Pisces - 96h) mg / l: 1430
EC50 - (Daphnia - 48 h) mg / l: 1100
EC50 - (Algae - 72h) mg / l: 1799.
ETHYL ACETATE - EC50 Crustaceans 260 mg / l Daphnia duplex.
SOLVENT NAPHTA (PETROLEUM)-To be considered dangerous for the environment and is toxic to aquatic organisms with the ability to cause long-term adverse effects in the aquatic environment.

1-METHOXY-2-PROPANOL ACETATE
LC50 - for Fish.
> 100 mg/l/96h
EC50 - for Crustacea.
> 408 mg/l/48h Daphnia
EC50 - for Algae / Aquatic Plants.
> 1000 mg/l/72h

ISOBUTYL ALCOHOL
LC50 - for Fish.
1430 mg/l/96h
EC50 - for Crustacea.
1100 mg/l/48h Daphnia
EC50 - for Algae / Aquatic Plants.
1799 mg/l/72h

2-BUTOXYETHANOL
LC50 - for Fish.
1474 mg/l/96h Oncorhynchus mykiss
EC50 - for Crustacea.
1550 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants.
911 mg/l/72h Pseudokirchneriella subcapitata

PROPAN-2-OL
LC50 - for Fish.
> 100 mg/l/96h Pesci. Leuciscus idus melanotus
EC50 - for Crustacea.
> 100 mg/l/48h Dafnia magna
EC50 - for Algae / Aquatic Plants.
> 100 mg/l/72h Alghe, Scenedesmus subspicatus

ETHYL ACETATE
LC50 - for Fish.
230 mg/l/96h Pimephales promelas
EC50 - for Algae / Aquatic Plants.
> 100 mg/l/72h alghe
Chronic NOEC for Crustacea.
2,4 mg/l daphnia pulex
Chronic NOEC for Algae / Aquatic Plants.

> 100 mg/l scenedesmus subspicatus

ISOBUTYL ACETATE
LC50 - for Fish.
100 mg/l/96h
EC50 - for Crustacea.
146 mg/l/48h Daphnia

NAPHTA SOLVENT (PETROLEUM), LIGHT AROMATIC
LC50 - for Fish.
9,2 mg/l/96h
EC50 - for Crustacea.
3,2 mg/l/48h Daphnia

12.2. Persistence and degradability.

2-Butoxyethanol - Biodegradation 28 Days = 90.4%.
ETHYL ACETATE - Readily biodegradable.
SOLVENT NAPHTA (PETROLEUM)-is assumed to be biodegradable according to OECD guideline. It degrades rapidly in air. The substance can be removed at a treatment plant wastewater.

1-METHOXY-2-PROPANOL ACETATE
Rapidly biodegradable.

2-BUTOXYETHANOL
Rapidly biodegradable.

ETHYL ACETATE
Solubility in water.
86000 mg/l

12.3. Bioaccumulative potential.

1-METHOXY-2-PROPANOL ACETATE - not bioaccumulative.
2-Butoxyethanol - Low bioaccumulation.

1-METHOXY-2-PROPANOL ACETATE
Partition coefficient: n-octanol/water.
0,56

ETHYL ACETATE
Partition coefficient: n-octanol/water.
0,68 mg/l
BCF.
< 30 mg/l 3d

12.4. Mobility in soil.

1-METHOXY-2-PROPANOL ACETATE - Soluble in water.
2-Butoxyethanol - The product has very high potential for mobility.
SOLVENT NAPHTA (PETROLEUM) - the substance is very volatile, evaporate quickly into the air when dispersed in water.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

The valid EEC waste code are largely source-related; the manufacturer is, therefore, unable to specify waste codes for products used in various sectors.
Small quantities of hardened product can be treated come Urban Solid Waste or industrial waste similar to USW.
CER-code (suggested): 08 01 11.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Avoid littering. Do not contaminate soil, sewers and waterways.
Waste transportation may be subject to ADR restrictions.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

These goods must be transported by vehicles authorized to the carriage of dangerous goods according to the provisions set out in the current edition of the Code of International Carriage of Dangerous Goods by Road (ADR) and in all the applicable national regulations.These goods must be packed in their original packagings or in packagings made of materials resistant to their content and not reacting dangerously with it. People loading and unloading dangerous goods must be trained on all the risks deriving from these substances and on all actions that must be taken in case of emergency situations.

Road and rail transport:

ADR/RID Class:	3	UN:	1263
Packing Group:	II		
Label:	3		
Nr. Kemler:	33		
Limited Quantity.	5 L		
Tunnel restriction code.	(D/E)		
Proper Shipping Name:	PAINT or PAINT RELATED MATERIAL		
Special Provision:	640C		

Carriage by sea (shipping):

IMO Class:	3	UN:	1263
Packing Group:	II		
Label:	3		
EMS:	F-E ,	S-E	
Marine Pollutant.	NO		
Proper Shipping Name:	PAINT or PAINT RELATED MATERIAL		

Transport by air:

IATA:	3	UN:	1263
Packing Group:	II		
Label:	3		
Cargo:			

Packaging instructions:	364	Maximum quantity:	60 L
Pass.:			
Packaging instructions:	353	Maximum quantity:	5 L
Special Instructions:	A3, A72		
Proper Shipping Name:	PAINT or PAINT RELATED MATERIAL		

SECTION 15. Regulatory information.

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

Seveso category. 7b

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Product.
Point. 3 - 40

Contained substance.

Point.	28-29	NAPHTA SOLVENT (PETROLEUM), LIGHT AROMATIC Reg. no.: 01-2119455851-35

Substances in Candidate List (Art. 59 REACH).

None.

Substances subject to authorisarion (Annex XIV REACH).

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Healthcare controls.

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment.

No chemical safety assessment has been processed for the mixture and the substances it contains.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Acute Tox. 4	Acute toxicity, category 4
Asp. Tox. 1	Aspiration hazard, category 1
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H304	May be fatal if swallowed and enters airways.
H373	May cause damage to organs through prolonged or repeated exposure.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
EUH066	Repeated exposure may cause skin dryness or cracking.

Text of risk (R) phrases mentioned in section 2-3 of the sheet:

R10	FLAMMABLE.
R11	HIGHLY FLAMMABLE.
R20/21	HARMFUL BY INHALATION AND IN CONTACT WITH SKIN.
R20/21/22	HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED.
R36	IRRITATING TO EYES.
R36/38	IRRITATING TO EYES AND SKIN.
R37	IRRITATING TO RESPIRATORY SYSTEM.
R37/38	IRRITATING TO RESPIRATORY SYSTEM AND SKIN.
R38	IRRITATING TO SKIN.

R41	RISK OF SERIOUS DAMAGE TO EYES.
R51/53	TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT.
R52/53	HARMFUL TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT.
R65	HARMFUL: MAY CAUSE LUNG DAMAGE IF SWALLOWED.
R66	REPEATED EXPOSURE MAY CAUSE SKIN DRYNESS OR CRACKING.
R67	VAPOURS MAY CAUSE DROWSINESS AND DIZZINESS.

LEGEND:
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY
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2. Directive 67/548/EEC and following amendments and adjustments
3. Regulation (EC) 1907/2006 (REACH) of the European Parliament
4. Regulation (EC) 1272/2008 (CLP) of the European Parliament
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6. Regulation (EC) 453/2010 of the European Parliament
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8. Regulation (EC) 618/2012 (III Atp. CLP) of the European Parliament
9. The Merck Index. - 10th Edition
10. Handling Chemical Safety
11. Niosh - Registry of Toxic Effects of Chemical Substances
12. INRS - Fiche Toxicologique (toxicological sheet)
13. Patty - Industrial Hygiene and Toxicology
14. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
15. ECHA website

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
01 / 02 / 03 / 04 / 06 / 08 / 09 / 10 / 11 / 12 / 13 / 14 / 15 / 16.