

**SB Series:
160, Superwhite, UltraWhite**

Safety Data Sheet

According to Annex II to REACH - Regulation 2015/830

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

1.1. Product identifier

Product name **SB Series**
UFI : **F9K0-R0FN-N00F-JE53**

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

Intended use **Pad printing ink**

1.3. Details of the supplier of the safety data sheet

Name **INKCUPS CORPORATION**
Full address **310 ANDOVER ST.**
District and Country **DANVERS, MA 01923**
USA
Tel. 978-646-8980

e-mail address of the competent person
responsible for the Safety Data Sheet **compliance@inkcups.com**
Product distribution by: **INKCUPS CORP.**

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 (EU) Regulation 2015/830. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Flammable liquid, category 3	H226	Flammable liquid and vapour.
Serious eye damage, category 1	H318	Causes serious eye damage.
Skin irritation, category 2	H315	Causes skin irritation.
Hazardous to the aquatic environment, chronic toxicity, category 3	H412	Harmful to aquatic life with long lasting effects.

2.2. Label elements

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

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Hazard pictograms:



Signal words:

Danger

Hazard statements:

H226	Flammable liquid and vapour.
H318	Causes serious eye damage.
H315	Causes skin irritation.
H412	Harmful to aquatic life with long lasting effects.
EUH208	Contains: Fatty acids, C18, unsaturated, dimers, products. Reaction with N, N-dimethyl-1, 3propanediamine and 1,3-propanediamine May produce an allergic reaction.

Precautionary statements:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P280	Wear protective gloves/ protective clothing / eye protection / face protection.
P310	Immediately call a POISON CENTER or a doctor.
P370+P378	In case of fire: use chemical powder, CO2 or dry send to extinguish.
P264	Wash the hands thoroughly after handling.

Contains: CYCLOHEXANONE

2.3. Other hazards

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

SECTION 3. Composition/information on ingredients

3.2. Mixtures

Contains:

Identification	x = Conc. %	Classification 1272/2008 (CLP)
TITANIUM DIOXIDE		
CAS 13463-67-7	$45 \leq x < 47,5$	
EC 236-675-5		
INDEX -		
CYCLOHEXANONE		
CAS 108-94-1	$13,5 \leq x < 15$	Flam. Liq. 3 H226, Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Eye Dam. 1 H318, Skin Irrit. 2 H315

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EC 203-631-1

INDEX 606-010-00-7

Reg. no. 01-2119453616-35-xxxx

**2-METHOXY-1-METHYLETHYL
ACETATE**

CAS 108-65-6

$8 \leq x < 9$

Flam. Liq. 3 H226, STOT SE 3 H336

EC 203-603-9

INDEX 607-195-00-7

Reg. no. 01-2119475791-29-xxxx

AROMATIC HYDROCARBONS, C9

CAS -

$7 \leq x < 8$

Flam. Liq. 3 H226, Asp. Tox. 1 H304, STOT SE 3 H335, STOT SE 3 H336, Aquatic Chronic 2 H411, EUH066, Classification note/notes according to Annex VI to the CLP Regulation: H, P

EC 918-668-5

INDEX -

Reg. no. 01-2119455851-35-xxxx

**4-HYDROXY-4-METHYLPENTAN-
2-ONE**

CAS 123-42-2

$6 \leq x < 7$

Flam. Liq. 3 H226, Eye Irrit. 2 H319, STOT SE 3 H335

EC 204-626-7

INDEX 603-016-00-1

Reg. no. 01-2119473975-21xxxx

**2-ETHOSSI-1-METHYL ETHYL
ACETATE**

CAS 54839-24-6

$2,5 \leq x < 3$

Flam. Liq. 3 H226, STOT SE 3 H336

EC 259-370-9

INDEX 603-177-00-8

Reg. no. 01-2119475116-39xxxx

**DIPROPYLEN GLYCOL
MONOMETHYL ETHER**

CAS 34590-94-8

$0,8 \leq x < 0,9$

Substance with a community workplace exposure limit.

EC 252-104-2

INDEX -

Reg. no. 01-2119450011-60xxxx

**Fatty acids, C18, unsaturated,
dimers, products. Reaction with N,
N-dimethyl-1, 3propanediamine
and 1,3-propanediamine**

CAS 162627-17-0

$0,24 \leq x < 0,25$

Skin Sens. 1 H317

EC 605-296-0

INDEX -

1-METHOXY-2-PROPANOL

CAS 107-98-2

$0,12 \leq x < 0,14$

Flam. Liq. 3 H226, STOT SE 3 H336

EC 203-539-1

INDEX 603-064-00-3

Reg. no. 01-2119457435-35xxxx

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

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

Specific information on symptoms and effects caused by the product are unknown.

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

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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.

Send away individuals who are not suitably equipped. Use explosion-proof equipment. Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site.

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. 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. 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. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store in a cool and 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:

BGR	България	МИНИСТЕРСТВО НА ТРУДА И СОЦИАЛНАТА ПОЛИТИКА МИНИСТЕРСТВО НА ЗДРАВЕОПАЗВАНЕТО НАРЕДБА No 13 от 30 декември 2003 г (4 Септември 2018г)
CZE	Česká Republika	Nařízení vlády č. 246/2018 Sb. Nařízení vlády, kterým se mění nařízení vlády č. 361/2007 Sb., kterým se stanoví podmínky ochrany zdraví při práci, ve znění pozdějších předpisů
DEU	Deutschland	TRGS 900 - Seite 1 von 69 (Fassung 29.03.2019)- Liste der Arbeitsplatzgrenzwerte und Kurzzeitwerte
DNK	Danmark	Bekendtgørelse om grænseværdier for stoffer og materialer - BEK nr 1458 af 13/12/2019
ESP	España	LÍMITES DE EXPOSICIÓN PROFESIONAL PARA AGENTES QUÍMICOS EN ESPAÑA 2019 (INSST)

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CYCLOHEXANONE Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	BGR	40,8	10	81,6	20	SKIN
TLV	CZE	40	9,8	80	196	SKIN
AGW	DEU	80	20	80	20	SKIN
TLV	DNK	41	10			SKIN E
VLA	ESP	41	10	82	20	SKIN
VLEP	FRA	40,8	10	81,6	20	
VLEP	ITA	40,8	10	81,6	20	SKIN
TGG	NLD			50		SKIN
VLE	PRT	40,8	10	81,6	20	SKIN
NDS/NDSch	POL	40		80		SKIN
TLV	ROU	40,8	10	81,6	20	SKIN
NGV/KGV	SWE	41	10	81	20	SKIN
ESD	TUR	40,8	10	81,6	20	SKIN
WEL	GBR	41	10	82	20	SKIN
OEL	EU	40,8	10	81,6	20	SKIN
TLV-ACGIH		80	20	201	50	SKIN

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,1	mg/l
Normal value in marine water	0,01	mg/l
Normal value for fresh water sediment	0,512	mg/kg
Normal value for marine water sediment	0,0512	mg/kg
Normal value for water, intermittent release	0,329	mg/l
Normal value of STP microorganisms	10	mg/l
Normal value for the terrestrial compartment	0,0435	mg/kg

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral				1,5 mg/kg bw/d				
Inhalation			VND	10 mg/m3			VND	40 mg/m3
Skin			VND	1 mg/kg bw/d			VND	4 mg/kg bw/d

2-METHOXY-1-METHYLETHYL ACETATE Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	BGR	275	50	550	100	SKIN

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Oral	VND	11 mg/kg		11 mg/kg bw/d
Inhalation	VND	32 mg/m3	VND	150 mg/m3
Skin	VND	11 mg/kg	VND	25 mg/kg

4-HYDROXY-4-METHYLPENTAN-2-ONE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	CZE	200	41,4	300	62,1	
AGW	DEU	96	20	192	40	SKIN
MAK	DEU	96	20	192	40	SKIN
TLV	DNK	240	50			
VLA	ESP	241	50			
VLEP	FRA	240	50			
TGG	NLD	120				SKIN
NDS/NDSch	POL	240				
TLV	ROU	150	32	250	53	
NGV/KGV	SWE	120	25	240 (C)	50 (C)	
WEL	GBR	241	50	362	75	
TLV-ACGIH		238	50			

Predicted no-effect concentration - PNEC

Normal value in fresh water	2	mg/l
Normal value in marine water	0,2	mg/l
Normal value for fresh water sediment	9,06	mg/kg
Normal value for marine water sediment	0,91	mg/kg
Normal value for water, intermittent release	1	mg/l
Normal value of STP microorganisms	82	mg/l
Normal value for the terrestrial compartment	0,63	mg/kg

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers			Effects on workers				
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral				3,4 mg/kg				
Inhalation				11,8 mg/m3				66,4 mg/m3
Skin				3,4 mg/kg				9,4 mg/kg

2-ETHOSSI-1-METHYL ETHYL ACETATE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
AGW	DEU	120	20	240	40	SKIN 14
MAK	DEU	120	20	240	40	SKIN Hinweis

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Predicted no-effect concentration - PNEC		
Normal value in fresh water	2	mg/l
Normal value in marine water	0,8	mg/l
Normal value for fresh water sediment	8,2	mg/kg
Normal value for marine water sediment	0,6	mg/kg
Normal value for water, intermittent release	2	mg/l
Normal value of STP microorganisms	62,5	mg/kg
Normal value for the food chain (secondary poisoning)	117	mg/kg
Normal value for the terrestrial compartment	0,6	mg/kg

Health - Derived no-effect level - DNEL / DMEL								
Route of exposure	Effects on consumers			Effects on workers				
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral			VND	13,1 mg/kg				
Inhalation	VND	365 mg/m3	VND	181 mg/m3	VND	608 mg/m3	VND	302 mg/m3
Skin			VND	62 mg/kg			VND	103 mg/kg

DIPROPYLEN GLYCOL MONOMETHYL ETHER						
Threshold Limit Value						
Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	BGR	308	50			SKIN
TLV	CZE	270	43,74	550	89,1	SKIN
AGW	DEU	310	50	310	50	
MAK	DEU	310	50	310	50	
TLV	DNK	309	50			SKIN E
VLA	ESP	308	50			SKIN
VLEP	FRA	308	50			SKIN
VLEP	ITA	308	50			SKIN
TGG	NLD	300				
VLE	PRT	308	50			SKIN
NDS/NDSch	POL	240		480		SKIN
TLV	ROU	308	50			SKIN
NGV/KGV	SWE	300	50	450 (C)	75 (C)	SKIN
ESD	TUR	308	50			SKIN
WEL	GBR	308	50			SKIN
OEL	EU	308	50			SKIN
TLV-ACGIH		606	100	909	150	SKIN

Predicted no-effect concentration - PNEC		
Normal value in fresh water	19	mg/l
Normal value in marine water	1,9	mg/l

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Normal value for fresh water sediment	70,2	mg/kg
Normal value for marine water sediment	7,02	mg/kg
Normal value for the terrestrial compartment	2,74	mg/kg

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral			VND	1,67 mg/kg bw/d				
Inhalation			VND	37,2 mg/m3			VND	310 mg/m3
Skin			VND	15 mg/kg bw/d			VND	65 mg/kg bw/d

1-METHOXY-2-PROPANOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	BGR	375	100	568	150	SKIN
TLV	CZE	270	72,09	550	146,85	SKIN
AGW	DEU	370	100	740	200	
MAK	DEU	370	100	740	200	
TLV	DNK	185	50			SKIN E
VLA	ESP	375	100	568	150	SKIN
VLEP	FRA	188	50	375	100	SKIN
VLEP	ITA	375	100	568	150	SKIN
TGG	NLD	375		563		SKIN
VLE	PRT	375	100	568	150	
NDS/NDSCh	POL	180		360		SKIN
TLV	ROU	375	100	568	150	SKIN
NGV/KGV	SWE	190	50	568	150	SKIN
ESD	TUR	375	100	568	150	SKIN
WEL	GBR	375	100	560	150	SKIN
OEL	EU	375	100	568	150	SKIN
TLV-ACGIH		184	50	368	100	

Predicted no-effect concentration - PNEC

Normal value in fresh water	10	mg/l
Normal value in marine water	1	mg/l
Normal value for fresh water sediment	41,6	mg/l
Normal value for marine water sediment	4,17	mg/kg
Normal value for water, intermittent release	100	mg/l
Normal value of STP microorganisms	100	mg/l
Normal value for the terrestrial compartment	2,47	mg/kg

Health - Derived no-effect level - DNEL / DMEL

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Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral			VND	3,3 mg/kg				3,3 mg/kg bw/d
Inhalation	553,5 mg/m3	VND	VND	43,9 mg/m3	535,5 mg/m3	VND	535,5 mg/m3	369 mg/m3
Skin			VND	18,1 mg/kg			VND	50,6 mg/kg

Traduci da: Indonesiano

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,0032	mg/l
Normal value in marine water	0,0032	mg/l
Normal value for fresh water sediment	15,6	mg/kg
Normal value for water, intermittent release	0,0032	mg/l
Normal value of STP microorganisms	35	mg/l
Normal value for the terrestrial compartment	0,865	mg/kg/d

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral		1,3 mg/kg bw/d						
Inhalation				4,4 mg/m3				17,8 mg/m3
Skin				13 mg/kg bw/d				25,5 mg/kg bw/d

HYDROM HYDROPHONE SILICATE

Threshold Limit Value

Type	Country	TWA/8h	STEL/15min	Remarks / Observations
		mg/m3	ppm	
AGW	DEU	4		INHAL
MAK	DEU	4		INHAL

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.

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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 II professional long-sleeved overalls and safety footwear (see Regulation 2016/425 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 airtight protective 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, use a mask with a type A filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (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.

ENVIRONMENTAL EXPOSURE CONTROLS

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	liquid
Colour	white
Odour	characteristic of solvent
Odour threshold	Not available
pH	Not available
Melting point / freezing point	Not available
Initial boiling point	Not available
Boiling range	Not available
Flash point	$23 \leq T \leq 60$ °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	Not available
Upper explosive limit	Not available

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Vapour pressure	Not available
Vapour density	Not available
Relative density	Not available
Solubility	insoluble in water
Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	Not available
Explosive properties	Not available
Oxidising properties	Not available

9.2. Other information

VOC (Directive 2010/75/EC) :	40,55 %
VOC (volatile carbon) :	27,40 %

SECTION 10. Stability and reactivity

10.1. Reactivity

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

CYCLOHEXANONE

Attacks various types of plastic materials.

May condense under the effect of heat to form resinous compounds.

2-METHOXY-1-METHYLETHYL ACETATE

Stable in normal conditions of use and storage.

With the air it may slowly develop peroxides that explode with an increase in temperature.

4-HYDROXY-4-METHYLPENTAN-2-ONE

Decomposes at temperatures above 90°C/194°F.

DIPROPYLEN GLYCOL MONOMETHYL ETHER

Forms peroxides with: air.

1-METHOXY-2-PROPANOL

Dissolves various plastic materials. Stable in normal conditions of use and storage.

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Absorbs and dissolves in water and in organic solvents. With air it may slowly form explosive peroxides.

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.

CYCLOHEXANONE

Risk of explosion on contact with: hydrogen peroxide, nitric acid, heat, mineral acids. May react violently with: oxidising agents. Forms explosive mixtures with: air.

2-METHOXY-1-METHYLETHYL ACETATE

May react violently with: oxidising substances, strong acids, alkaline metals.

4-HYDROXY-4-METHYLPENTAN-2-ONE

Risk of explosion on contact with: air, sources of heat. May react dangerously with: alkaline metals, amines, oxidising agents, acids.

DIPROPYLEN GLYCOL MONOMETHYL ETHER

May react violently with: strong oxidising agents.

1-METHOXY-2-PROPANOL

May react dangerously with: strong oxidising agents, strong acids.

10.4. Conditions to avoid

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

CYCLOHEXANONE

Avoid exposure to: sources of heat, naked flames.

4-HYDROXY-4-METHYLPENTAN-2-ONE

Avoid exposure to: light, sources of heat, naked flames.

DIPROPYLEN GLYCOL MONOMETHYL ETHER

Avoid exposure to: sources of heat. Possibility of explosion.

1-METHOXY-2-PROPANOL

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Avoid exposure to: air.

10.5. Incompatible materials

2-METHOXY-1-METHYLETHYL ACETATE

Incompatible with: oxidising substances, strong acids, alkaline metals.

1-METHOXY-2-PROPANOL

Incompatible with: oxidising substances, strong acids, alkaline metals.

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.

SECTION 11. Toxicological information

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.

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

2-METHOXY-1-METHYLETHYL ACETATE

The main route of entry is the skin, whereas the respiratory route is less important due to the low vapour pressure of the product.

Information on likely routes of exposure

2-METHOXY-1-METHYLETHYL ACETATE

WORKERS: inhalation; contact with the skin.

4-HYDROXY-4-METHYLPENTAN-2-ONE

WORKERS: inhalation; contact with the skin.

1-METHOXY-2-PROPANOL

WORKERS: inhalation; contact with the skin.

POPULATION: ingestion of contaminated food or water; inhalation of ambient air; contact with the skin of products containing the substance.

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

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2-METHOXY-1-METHYLETHYL ACETATE

Above 100 ppm causes irritation of the eye, nose and oropharynx mucous membranes. At 1000 ppm, disturbance of equilibrium and severe eye irritation can be noticed. Clinical and biological examinations carried out on exposed volunteers revealed no anomalies. Acetate produces greater skin and eye irritation with direct contact. No chronic effects on humans have been reported (INCR, 2010).

4-HYDROXY-4-METHYLPENTAN-2-ONE

Acute toxicity causes irritation of the eyes, nose and throat in humans at 100 ppm (476 mg/kg) and pulmonary disorders at 400 ppm. No chronic effects on humans have been reported. The substance may have a depressive effect on the respiratory centres and cause death from respiratory failure.

1-METHOXY-2-PROPANOL

The main route of entry is the skin, whereas the respiratory route is less important due to the low vapour pressure of the product. Above 100 ppm causes irritation of the eye, nose and oropharynx mucous membranes. At 1000 ppm, disturbance of equilibrium and severe eye irritation can be noticed. Clinical and biological examinations carried out on exposed volunteers revealed no anomalies. Acetate produces greater skin and eye irritation with direct contact. No chronic effects on humans have been reported.

Interactive effects

Information not available

ACUTE TOXICITY

ATE (Inhalation) of the mixture:

> 20 mg/l

ATE (Oral) of the mixture:

>2000 mg/kg

ATE (Dermal) of the mixture:

>2000 mg/kg

Poliuretanic Resin

LD50 (Oral) > 5000 mg/kg Ratto / Rat

LD50 (Dermal) > 2000 mg/kg Ratto / Rat

AROMATIC HYDROCARBONS, C9

LD50 (Oral) 3492 mg/kg Ratto / Rat

LD50 (Dermal) > 3160 mg/kg Ratto / Rat

LC50 (Inhalation) > 6193 mg/l/4h Ratto / Rat

DIPROPYLEN GLYCOL MONOMETHYL ETHER

LD50 (Oral) 5660 mg/kg Ratto / Rat

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LD50 (Dermal) 19020 mg/kg Coniglio / Rabbit

TITANIUM DIOXIDE

LD50 (Oral) > 5000 mg/l Ratto/Rat

LC50 (Inhalation) > 6,82 mg/l Ratto/Rat

2-METHOXY-1-METHYLETHYL ACETATE

LD50 (Oral) 8500 mg/kg Ratto / Rat

LD50 (Dermal) > 5000 mg/kg Coniglio / Rabbit

LC50 (Inhalation) 4345 ppm/6h Ratto / Rat

2-ETHOSSI-1-METHYL ETHYL ACETATE

LD50 (Oral) > 5000 mg/kg Ratto / Rat

LD50 (Dermal) 13,42 ml/Kg Coniglio / Rabbit

LC50 (Inhalation) 6,99 mg/l/4h Rat

4-HYDROXY-4-METHYLPENTAN-2-ONE

LD50 (Oral) 3002 mg/kg Rat

LD50 (Dermal) > 1875 mg/kg Ratto / Rat

LC50 (Inhalation) > 7,6 mg/l Ratto / Rat

1-METHOXY-2-PROPANOL

LD50 (Oral) 4000 mg/kg Rat

LD50 (Dermal) 13000 mg/kg Rabbit

LC50 (Inhalation) 54,6 mg/l/4h Rat

CYCLOHEXANONE

LD50 (Oral) 1535 mg/kg Ratto / Rat

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LD50 (Dermal) 1100 mg/kg 794 - 3160 / Coniglio / Rabbit

LC50 (Inhalation) 11 mg/l/4h Ratto / Rat (4h)

Silicic acid, sodium aluminum salt

LD50 (Oral) > 10000 mg/kg ratto/rat

LD50 (Dermal) > 5000 mg/kg coniglio/rabbit

SKIN CORROSION / IRRITATION

Causes skin irritation

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

RESPIRATORY OR SKIN SENSITISATION

May produce an allergic reaction. Contains: Fatty acids, C18, unsaturated, dimers, products. Reaction with N, N-dimethyl-1, 3propanediamine and 1,3-propanediamine

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

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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

Poliuretanic Resin

LC50 - for Fish	> 100 mg/l/96h Danio rerio
EC50 - for Crustacea	> 100 mg/l/48h Daphnia magna

AROMATIC HYDROCARBONS, C9

LC50 - for Fish	> 9,2 mg/l/96h Oncorhynchus mykiss
EC50 - for Crustacea	> 3,2 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	> 2,9 mg/l/72h Pseudokirchneriella subcapitata

DIPROPYLEN GLYCOL MONOMETHYL ETHER

LC50 - for Fish	> 10000 mg/l/96h Pimephales promelas
EC50 - for Crustacea	1919 mg/l/48h Daphnia Magna
EC10 for Algae / Aquatic Plants	> 969 mg/l/48h

TITANIUM DIOXIDE

EC50 - for Algae / Aquatic Plants	61 mg/l/72h Pseudokirchneriella subcapitata
Chronic NOEC for Fish	5 mg/l Onchorynchus mykiss
Chronic NOEC for Crustacea	3 mg/l Daphnia magna

2-METHOXY-1-METHYLETHYL ACETATE

LC50 - for Fish	134 mg/l/96h Pesce, Oncorhynchus mykiss OECD 203
EC50 - for Crustacea	> 500 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	> 1000 mg/l/72h Selenastrum capricornutum OECD 201
Chronic NOEC for Fish	47,5 mg/l Oryzias latipes 14 gg OECD 204
Chronic NOEC for Crustacea	100 mg/l Daphnia magna 21 gg OECD 202

2-ETHOSSI-1-METHYL ETHYL ACETATE

LC50 - for Fish	140 mg/l/48h Oncorhynchus mykiss (test 48h)
EC50 - for Crustacea	110 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	> 100 mg/l/72h Scenedesmus subspicatus

4-HYDROXY-4-METHYLPENTAN-2-ONE

LC50 - for Fish	> 100 mg/l/96h Oryzias latipes
EC50 - for Crustacea	> 1000 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	< 1000 mg/l/72h Pseudokirchneriella subcapitata

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1-METHOXY-2-PROPANOL

LC50 - for Fish	> 20800 mg/l/96h Pimephales promelas
EC50 - for Crustacea	> 21100 mg/l/48h Daphnia magna, prova statica
EC50 - for Algae / Aquatic Plants	> 1000 mg/l/72h Scenedesmus subspicatus, prova statica

CYCLOHEXANONE

LC50 - for Fish	527 mg/l/96h 527 - 732 / Pimephales promelas
EC50 - for Crustacea	> 100 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	> 100 mg/l/72h Scenedesmus subspicatus

Silicic acid, sodium aluminum salt

LC50 - for Fish	> 10000 mg/l/96h Brachydanio rerio (OECD 203)
EC50 - for Algae / Aquatic Plants	> 10000 mg/l/72h Scenedesmus suspicatus (OECD 201)

12.2. Persistence and degradability

Poliuretanic Resin

NOT rapidly degradable

Biodegradazione 1% 28 d

AROMATIC HYDROCARBONS, C9

Rapidly degradable

DIPROPYLEN GLYCOL MONOMETHYL ETHER

Solubility in water 1000 - 10000 mg/l

Rapidly degradable

TITANIUM DIOXIDE

NOT rapidly degradable

2-METHOXY-1-METHYLETHYL ACETATE

Solubility in water > 10000 mg/l

Rapidly degradable

2-ETHOSSI-1-METHYL ETHYL ACETATE

Solubility in water > 10000 mg/l

Rapidly degradable

4-HYDROXY-4-METHYLPENTAN-2-ONE

Solubility in water 1000 - 10000 mg/l

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Rapidly degradable

1-METHOXY-2-PROPANOL

Solubility in water 1000 - 10000 mg/l

Rapidly degradable

CYCLOHEXANONE

Solubility in water 86 mg/l

Rapidly degradable

12.3. Bioaccumulative potential

DIPROPYLEN GLYCOL MONOMETHYL
ETHER

Partition coefficient: n-octanol/water 0,0043

2-METHOXY-1-METHYLETHYL ACETATE

Partition coefficient: n-octanol/water 1,2

BCF 100

2-ETHOSSI-1-METHYL ETHYL ACETATE

Partition coefficient: n-octanol/water 0,76

BCF 3,162

4-HYDROXY-4-METHYLPENTAN-2-ONE

Partition coefficient: n-octanol/water -0,09

1-METHOXY-2-PROPANOL

Partition coefficient: n-octanol/water < 1

CYCLOHEXANONE

Partition coefficient: n-octanol/water 0,86

12.4. Mobility in soil

2-METHOXY-1-METHYLETHYL ACETATE

Partition coefficient: soil/water 1,7

2-ETHOSSI-1-METHYL ETHYL ACETATE

Partition coefficient: soil/water 1

CYCLOHEXANONE

Partition coefficient: soil/water 1,18

12.5. Results of PBT and vPvB assessment

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

12.6. Other adverse effects

Information not available

SECTION 13. Disposal considerations

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.

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

14.1. UN number

ADR / RID, IMDG, 1210
IATA:

14.2. UN proper shipping name

ADR / RID: PRINTING INK
IMDG: PRINTING INK
IATA: PRINTING INK

14.3. Transport hazard class(es)

ADR / RID: Class: 3 Label: 3

IMDG: Class: 3 Label: 3

IATA: Class: 3 Label: 3



14.4. Packing group

ADR / RID, IMDG, III
IATA:

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14.5. Environmental hazards

ADR / RID: NO
 IMDG: NO
 IATA: NO

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 30	Limited Quantities: 5 L	Tunnel restriction code: (D/E)
	Special Provision: -		
IMDG:	EMS: F-E, S-D	Limited Quantities: 5 L	
IATA:	Cargo:	Maximum quantity: 220 L	Packaging instructions: 366
	Pass.:	Maximum quantity: 60 L	Packaging instructions: 355
	Special Instructions:	A3, A72, A192	

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

SECTION 15. Regulatory information

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

Seveso Category - Directive 2012/18/EC: P5c

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

Product Point 3 - 40

Substances in Candidate List (Art. 59 REACH)

On the basis of available data, the product does not contain any SVHC in percentage \geq than 0,1%.

Substances subject to authorisation (Annex XIV REACH)

None

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

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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

A chemical safety assessment has not been performed for the preparation/for the substances indicated in section 3.

SECTION 16. Other information

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

Flam. Liq. 3	Flammable liquid, category 3
Acute Tox. 4	Acute toxicity, category 4
Asp. Tox. 1	Aspiration hazard, category 1
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
Skin Sens. 1	Skin sensitization, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
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.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H336	May cause drowsiness or dizziness.

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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.

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

1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
 2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
 3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
 4. Regulation (EU) 2015/830 of the European Parliament
 5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
 6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
 7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
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 9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
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 14. Regulation (EU) 2018/669 (XI Atp. CLP)
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 16. Regulation (EU) 2019/521 (XII Atp. CLP)
- The Merck Index. - 10th Edition
 - Handling Chemical Safety
 - INRS - Fiche Toxicologique (toxicological sheet)
 - Patty - Industrial Hygiene and Toxicology
 - N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
 - IFA GESTIS website
 - ECHA website

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- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

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.

CALCULATION METHODS FOR CLASSIFICATION

Chemical and physical hazards: Product classification derives from criteria established by the CLP Regulation, Annex I, Part 2. The data for evaluation of chemical-physical properties are reported in section 9.

Health hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 3, unless determined otherwise in Section 11.

Environmental hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 4, unless determined otherwise in Section 12.

Changes to previous review:

The following sections were modified:

01.