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

Code: **411 00 12800-2714-30ml**
411 00 12900-2715-250ml

Product name **GLASS PRIMER**

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

Intended use **Adhesion promoter for polyurethane sealants**

1.3. Details of the supplier of the safety data sheet

Name **Meccanocar Italia S.r.l.**
Full address **Via San Francesco, 22**
District and Country **56033 Capannoli (PI)**
Italy
Tel. +39 0587 609433
Fax +39 0587 607145

e-mail address of the competent person responsible for the Safety Data Sheet **moreno.meini@meccanocar.it**

1.4. Emergency telephone number

For urgent inquiries refer to **National Poisons Information Service: +44 121 507 4123**

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 2	H225	Highly flammable liquid and vapour.
Eye irritation, category 2	H319	Causes serious eye irritation.
Skin sensitization, category 1	H317	May cause an allergic skin reaction.
Specific target organ toxicity - single exposure, category 3	H336	May cause drowsiness or dizziness.

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.
H319	Causes serious eye irritation.
H317	May cause an allergic skin reaction.
H336	May cause drowsiness or dizziness.
EUH066	Repeated exposure may cause skin dryness or cracking.
EUH204	Contains isocyanates. May produce an allergic reaction.

Precautionary statements:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280	Wear protective gloves/ protective clothing / eye protection / face protection.
P370+P378	In case of fire: use CO2 fire extinguisher to extinguish.
P261	Avoid breathing dust / fume / gas / mist / vapours / spray.
P233	Keep container tightly closed.
P312	Call a POISON CENTRE / doctor if you feel unwell.

Contains: ALIPHATIC POLYISOCYANATE
2,4-DIISOCYANATE-1-methylbenzene
METHYL ETHYL KETONE
N-BUTYL ACETATE

2.3. Other hazards

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

SECTION 3. Composition/information on ingredients

3.2. Mixtures

Contains:

Identification	**x = Conc. %**	**Classification 1272/2008 (CLP)**
METHYL ETHYL KETONE		
CAS 78-93-3	50 ≤ x < 54	Flam. Liq. 2 H225, Eye Irrit. 2 H319, STOT SE 3 H336, EUH066
EC 201-159-0		
INDEX 606-002-00-3		
Reg. no. 01-2119457290-43-XXXX		
N-BUTYL ACETATE		
CAS 123-86-4	24 ≤ x < 25,5	Flam. Liq. 3 H226, STOT SE 3 H336, EUH066
EC 204-658-1		
INDEX 607-025-00-1		

Reg. no. 01-2119485493-29-XXXX

2,4-DIISOCYANATE-1-methylbenzene

CAS 26426-91-5 | 9 ≤ x < 10,5 | Skin Sens. 1 H317

EC 642-372-2

INDEX -

ALIPHATIC POLYISOCYANATE

CAS 28182-81-2 | 6 ≤ x < 7 | Skin Sens. 1 H317

EC 500-060-2

INDEX -

2-METHOXY-1-METHYLETHYL ACETATE

CAS 108-65-6 | 2 ≤ x < 2,5 | Flam. Liq. 3 H226, STOT SE 3 H336

EC 203-603-9

INDEX 607-195-00-7

Reg. no. 01-2119475791-29-XXXX

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. Wash immediately with plenty of water. If irritation persists, get medical advice/attention. Wash contaminated clothing before using it again.
INHALATION: Remove to open air. In the event of breathing difficulties, get medical advice/attention immediately.
INGESTION: Get medical advice/attention. Induce vomiting only if indicated by the doctor. Never give anything by mouth to an unconscious person, unless 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

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. 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 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:

ESP	España	LÍMITES DE EXPOSICIÓN PROFESIONAL PARA AGENTES QUÍMICOS EN ESPAÑA 2019 (INSST)
FRA	France	Valeurs limites d'exposition professionnelle aux agents chimiques en France. ED 984 - INRS
GBR	United Kingdom	EH40/2005 Workplace exposure limits (Third edition,published 2018)
ITA	Italia	DIRETTIVA (UE) 2017/164 DELLA COMMISSIONE del 31 gennaio 2017
NOR	Norge	Fastsatt av Arbeids- og sosialdepartementet 21. august 2018 med hjemmel i lov 17. juni 2005 nr. 62 om arbeidsmiljø, arbeidstid, stillingsvern mv. (arbeidsmiljøloven) § 1-3, § 1-4 og § 4-5
PRT	Portugal	Ministério da Economia e do Emprego Consolida as prescrições mínimas em matéria de protecção dos trabalhadores contra os riscos para a segurança e a saúde devido à exposição a agentes químicos no trabalho - Diário da República, 1.ª série - N.º 111 - 11 de junho de 2018
EU	OEL EU	Directive (EU) 2017/2398; Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2019

METHYL ETHYL KETONE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP	600	200	900	300	
VLEP	FRA	600	200	900	300	SKIN
WEL	GBR	600	200	899	300	SKIN
VLEP	ITA	600	200	900	300	
TLV	NOR	220	75			
VLE	PRT	600	200	900	300	
OEL	EU	600	200	900	300	
TLV-ACGIH		590	200	885	300	

Predicted no-effect concentration - PNEC		
Normal value in fresh water	55,8	mg/l
Normal value in marine water	55,8	mg/l
Normal value for fresh water sediment	284,74	mg/kg
Normal value for marine water sediment	284,74	mg/kg
Normal value of STP microorganisms	709	mg/l
Normal value for the food chain (secondary poisoning)	1000	mg/kg
Normal value for the terrestrial compartment	22,5	mg/kg

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				31 mg/kg bw/d				
Inhalation				106 mg/m3				600 mg/m3
Skin				412 mg/kg bw/d				1161 mg/kg bw/d

N-BUTYL ACETATE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP	724	150	965	200	
VLEP	FRA	710	150	940	200	
WEL	GBR	724	150	966	200	
TLV	NOR		75			
TLV-ACGIH			50		150	

Predicted no-effect concentration - PNEC		
Normal value in fresh water	0,18	mg/l
Normal value in marine water	0,018	mg/l
Normal value for fresh water sediment	0,981	mg/kg
Normal value for marine water sediment	0,098	mg/kg
Normal value of STP microorganisms	35,6	mg/l
Normal value for the terrestrial compartment	0,09	mg/kg

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		2 mg/kg bw/d		2 mg/kg bw/d				
Inhalation	300 mg/m3	300 mg/m3	35,7 mg/m3	35,7 mg/m3	600 mg/m3	600 mg/m3	300 mg/m3	300 mg/m3
Skin		6 mg/kg bw/d		6 mg/kg bw/d		11 mg/kg bw/d		11 mg/kg bw/d

ALIPHATIC POLYISOCYANATE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	NOR		0,005			

2-METHOXY-1-METHYLETHYL ACETATE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP	275	50	550	100	SKIN
VLEP	FRA	275	50	550	100	SKIN
WEL	GBR	274	50	548	100	SKIN
VLEP	ITA	275	50	550	100	SKIN
TLV	NOR	270	50			SKIN
VLE	PRT	275	50	550	100	SKIN
OEL	EU	275	50	550	100	SKIN

Predicted no-effect concentration - PNEC		
Normal value in fresh water	0,635	mg/l
Normal value in marine water	0,064	mg/l
Normal value for fresh water sediment	3,29	mg/kg

Normal value for marine water sediment	0,329	mg/kg
Normal value of STP microorganisms	100	mg/l
Normal value for the terrestrial compartment	0,29	mg/kg

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		500 mg/kg bw/d		36 mg/kg bw/d				
Inhalation			33 mg/m3	33 mg/m3			550 mg/m3	275 mg/m3
Skin				320 mg/kg bw/d				796 mg/kg bw/d

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 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.

N-BUTYL ACETATE

Wear protective gloves. The recommendations are listed below. Other protective material can be used, depending on the situation, if adequate data on degradation and permeation are available. If other chemicals are used together with this chemical, the selection of materials should be based on the protection of all chemicals present.

BLACK COAL

A composition of special carbon black gloves is not required. Gloves can be used to protect hands from carbon black dirt. The use of a barrier cream can help prevent drying of the skin. Wash your hands and other exposed skin with mild soap and water.

2-METHOXY-1-METHYLETHYL ACETATE

Use gloves chemically resistant to this material in case of prolonged or frequent repeated contact. Use chemical resistant gloves classified according to EN374: protective gloves against chemicals and microorganisms. Examples of preferred barrier material for gloves include: Butyl rubber. Polyethylene. Chlorinated polyethylene. Ethyl vinyl alcohol laminate ("EVAL"). Examples of acceptable barrier materials for gloves include: Natural rubber ("latex"). Polyvinyl chloride ("PVC" or "vinyl"). Nitrile / butadiene rubber ("nitrile" or "NBR"). In the event of prolonged or frequently repeated contact, a glove with a protection class of 5 or higher is recommended (breakthrough time greater than 240 minutes according to EN 374). When only a short contact is expected, a glove with a protection class of 1 or more is recommended (breakthrough time greater than 10 minutes according to EN 374)

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	liquid
Colour	black
Odour	Not available
Odour threshold	Not available
pH	Not available
Melting point / freezing point	Not available
Initial boiling point	79 °C
Boiling range	Not available
Flash point	-8 °C
Evaporation rate	Not available
Flammability (solid, gas)	Not available
Lower inflammability limit	1,8 % (V/V)
Upper inflammability limit	11,5 % (V/V)
Lower explosive limit	Not available
Upper explosive limit	Not available
Vapour pressure	Not available
Vapour density	Not available
Relative density	0,92
Solubility	partially miscible
Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature	> 200 °C
Decomposition temperature	Not available

Viscosity	50 mPA.s
Explosive properties	Not available
Oxidising properties	Not available

9.2. Other information

VOC (Directive 2010/75/EC) : 70,00 % - 644,00 g/litre

SECTION 10. Stability and reactivity

10.1. Reactivity

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

METHYL ETHYL KETONE

Reacts with: light metals,strong oxidants.Attacks various types of plastic materials.Decomposes under the effect of heat.

N-BUTYL ACETATE

Decomposes on contact with: water.

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.

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.

METHYL ETHYL KETONE

May form peroxides with: air,light,strong oxidising agents.Risk of explosion on contact with: hydrogen peroxide,nitric acid,sulphuric acid.May react dangerously with: oxidising agents,trichloromethane,alkalis.Forms explosive mixtures with: air.

N-BUTYL ACETATE

Risk of explosion on contact with: strong oxidising agents.May react dangerously with: alkaline hydroxides,potassium tert-butoxide.Forms explosive mixtures with: air.

Vapors can form an explosive mixture with air.

2-METHOXY-1-METHYLETHYL ACETATE

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

10.4. Conditions to avoid

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

METHYL ETHYL KETONE

Avoid exposure to: sources of heat.

N-BUTYL ACETATE

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

Avoid contact with heat, sparks, open flames and static discharge. Avoid any source of ignition.

BLACK COAL

Prevent exposure to high temperatures and open flames.

2-METHOXY-1-METHYLETHYL ACETATE

The product can oxidize at high temperatures. Avoid static discharge. Flammable vapors can be released at high temperatures

10.5. Incompatible materials

METHYL ETHYL KETONE

Incompatible with: strong oxidants,inorganic acids,ammonia,copper,chloroform.

N-BUTYL ACETATE

Incompatible with: water,nitrates,strong oxidants,acids,alkalis,zinc.

Strong acids and strong bases, strong oxidizing agents.

BLACK COAL

Strong oxidants such as chlorates, bromates and nitrates.

2-METHOXY-1-METHYLETHYL ACETATE

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

Avoid contact with oxidizing materials. Avoid contact with: strong acids. Strong oxidants.

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.

BLACK COAL

Carbon monoxide, carbon dioxide, organic decomposition products, oxides or sulfur (sulphoxides) are formed when heated above the decomposition temperature.

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

N-BUTYL ACETATE

WORKERS: inhalation; contact with the skin.

2-METHOXY-1-METHYLETHYL ACETATE

WORKERS: inhalation; contact with the skin.

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

N-BUTYL ACETATE

In humans, the substance's vapours cause irritation of the eyes and nose. In the event of repeated exposure, skin irritation, dermatitis (dryness and cracking of the skin) and keratitis appear.

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).

Interactive effects

N-BUTYL ACETATE

A case of acute intoxication been reported involving a 33 year old worker while cleaning a tank with a preparation containing xylenes, butyl acetate and ethylene glycol acetate. The person had irritation of the conjunctiva and upper respiratory tract, drowsiness and motor coordination disorders, which disappeared within 5 hours. The symptoms are attributed to poisoning by mixed xylenes and butyl acetate, with a possible synergistic effect responsible

for the neurological effects. Cases of vacuolar keratitis are reported in workers exposed to a mixture of butyl acetate and isobutanol vapours, but with uncertainty concerning the responsibility of a particular solvent (INRC, 2011).

ACUTE TOXICITY

LC50 (Inhalation) of the mixture:
Not classified (no significant component)
LD50 (Oral) of the mixture:
Not classified (no significant component)
LD50 (Dermal) of the mixture:
Not classified (no significant component)

METHYL ETHYL KETONE

LD50 (Oral) 2737 mg/kg Rat

LD50 (Dermal) 6480 mg/kg Rabbit

LC50 (Inhalation) 23,5 mg/l/8h Rat

2-METHOXY-1-METHYLETHYL ACETATE

LD50 (Oral) 8530 mg/kg Rat

LD50 (Dermal) > 5000 mg/kg Rat

BLACK COAL

LD50 (Oral) > 10000 mg/kg Rat

N-BUTYL ACETATE

Method: Equivalent or similar to OECD 423
Reliability: 2
Species: Rat (Sprague-Dawley; male / female)
Route of exposure: Oral
Results: LD50 = 12.2 mL / kg bw
Method: Equivalent or similar to OECD 402
Reliability: 2
Species: Rabbit (New Zealand White; male / female)
Route of exposure: Dermal
Results: LD50> 16 mL / kg bw

BLACK COAL

Method: Equivalent or similar to OECD 401
Reliability: 1
Species: Rat (Sprague-Dawley; male / female)
Route of exposure: Oral
Results: LD50> 10000 mg / kg bw

SKIN CORROSION / IRRITATION

Repeated exposure may cause skin dryness or cracking.

METHYL ETHYL KETONE

Method: OECD 404
Reliability: 2
Species: Rabbit (New Zealand White)
Route of exposure: Dermal
Results: Not irritating

N-BUTYL ACETATE

Method: Equivalent or similar to OECD 404
Reliability: 2
Species: Rabbit (New Zealand White)
Route of exposure: Dermal
Results: Not irritating

BLACK COAL

Method: Equivalent or similar to OECD 404
Reliability: 1
Species: Rabbit (White Russian)
Route of exposure: Dermal
Results: Not irritating

2-METHOXY-1-METHYLETHYL ACETATE

Method: Equivalent or similar from OECD 404
Reliability: 2
Species: Rabbit (New Zealand White)
Route of exposure: Dermal
Results: Not irritating

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye irritation

METHYL ETHYL KETONE

Method: Equivalent or similar to OECD 405
Reliability: 2
Species: Rabbit (Albino)
Route of exposure: Ocular
Results: Category 2, irritant

N-BUTYL ACETATE

Method: OECD 405
Reliability: 2
Species: Rabbit (New Zealand White)
Route of exposure: Ocular
Results: Not irritating

BLACK COAL

Method: OECD 405
Reliability: 1
Species: Rabbit (New Zealand White)

Route of exposure: Ocular
Results: Not irritating

2-METHOXY-1-METHYLETHYL ACETATE

Method: Equivalent or similar from OECD 405
Reliability: 2
Species: Rabbit (New Zealand White)
Route of exposure: Ocular
Results: Not irritating

RESPIRATORY OR SKIN SENSITISATION

Sensitising for the skin

BLACK COAL

Method: OECD 406
Reliability: 1
Species: guinea pig (Dunkin-Hartley; female)
Route of exposure: Dermal
Results: Not sensitizing

Skin sensitization
METHYL ETHYL KETONE

Method: OECD 406
Reliability: 1
Species: guinea pig (Dunkin-Hartley; female)
Route of exposure: Dermal
Results: Not sensitizing

2-METHOXY-1-METHYLETHYL ACETATE

Method: Equivalent or similar from OECD 406
Reliability: 2
Species: guinea pig (Dunkin-Hartley; male / female)
Route of exposure: Dermal
Results: Not sensitizing

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

METHYL ETHYL KETONE

Method: Equivalent or similar to OECD 471 in vitro test
Reliability: 2
Species: S. typhimurium
Results: Negative
Method: Equivalent or similar to OECD 474 in vivo test
Reliability: 2
Species: Mouse (CD-1; male / female)
Route of exposure: Intraperitonal
Results: Negative

N-BUTYL ACETATE

Method: Equivalent or similar to OECD 471 in vitro test

Reliability: 2
Species: S. typhimurium, E. Coli
Results: Negative with and without metabolic activation

Method: OECD 474-test in vivo
Reliability: 2
Species: Mouse (NMRI; male / female)
Route of exposure: Oral
Results: Negative

BLACK COAL

Method: OECD 471 in vitro test
Reliability: 1
Species: S. typhimurium
Results: Negative with and without metabolic activation
Method: Not indicated - in vivo test
Reliability: 1
Species: Rat (Fischer 344; female)
Route of exposure: Oral
Results: Negative

2-METHOXY-1-METHYLETHYL ACETATE

Method: Equivalent or similar from OECD 471-in vitro test
Reliability: 1
Species: Salmonella typhimurium
Results: Negative

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

2-METHOXY-1-METHYLETHYL ACETATE

Method: OECD Guideline 453
Reliability: 1
Species: Rat (Fischer 344; male / female)
Route of exposure: Inhalation (vapors)
Results: NOEL 300 ppm

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

Adverse effects on sexual function and fertility
METHYL ETHYL KETONE

Method: Equivalent or similar to OECD 416
Reliability: 2
Species: Rat (Wistar; male / female)
Route of exposure: Oral
Results: NOAEL (fertility) 10 000 mg / L

N-BUTYL ACETATE

Method: OECD 416
Reliability: 1
Species: Rat (Sprague-Dawley; male / female)

Route of exposure: Inhalation (vapors)
Results: Negative, NOAEC (fertility) = 750 ppm

2-METHOXY-1-METHYLETHYL ACETATE

Method: OECD Guideline 416
Reliability: 1
Species: Rat (Sprague-Dawley; male / female)
Route of exposure: Inhalation (vapors)
Results: NOAEL 300 ppm

Adverse effects on development of the offspring
METHYL ETHYL KETONE

Method: Equivalent or similar to OECD 414
Reliability: 1
Species: Rat (Sprague-Dawley)
Route of exposure: Inhalation
Results: NOAEC (development) ca. 1 002 ppm

N-BUTYL ACETATE

Method: Equivalent or similar to OECD 414
Reliability: 1
Species: Rat (Sprague-Dawley)
Route of exposure: Inhalation (vapors)
Results: Positive, NOAEC (development) = 1500 ppm

2-METHOXY-1-METHYLETHYL ACETATE

Method: Equivalent or similar from OECD 414
Reliability: 1
Species: Rat (Sprague-Dawley)
Route of exposure: Inhalation
Results: NOAEL 500 ppm

STOT - SINGLE EXPOSURE

May cause drowsiness or dizziness

METHYL ETHYL KETONE

Based on available data and through expert judgment, the substance is classified in the target organ toxicity class for single exposure.

N-BUTYL ACETATE

Based on available data and through expert judgment, the substance is classified in the target organ toxicity class for single exposure.

BLACK COAL

Based on available data and through expert judgment, the substance is not classified in the target organ toxicity class for single exposure.

2-METHOXY-1-METHYLETHYL ACETATE

Based on available data and through expert judgment, the substance is classified in the target organ toxicity class for single exposure.

Target organ
METHYL ETHYL KETONE

Central nervous system.

N-BUTYL ACETATE

Central nervous system.

2-METHOXY-1-METHYLETHYL ACETATE

Central nervous system

Route of exposure
2-METHOXY-1-METHYLETHYL ACETATE

Oral

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

METHYL ETHYL KETONE

Method: Equivalent or similar to OECD 413
Reliability: 1
Species: Rat (Fischer 344; male / female)
Route of exposure: Inhalation (vapors)
Results: NOAEC 5 041 ppm

N-BUTYL ACETATE

Method: EPA OTS 798.2650
Reliability: 2
Species: Rat (Sprague-Dawley; male / female)
Route of exposure: Oral
Results: NOAEL = 125 mg / kg bw / day
Method: EPA OTS 798.2450
Reliability: 1
Species: Rat (Sprague-Dawley; male / female)
Route of exposure: Inhalation (vapors)
Results: Negative, NOAEC = 500 ppm

BLACK COAL

Method: Equivalent or similar to OECD 476
Reliability: 1
Species: Rat, mouse, hamster (F344, B6C3F1, F1B Syrian golden; females)
Route of exposure: Inhalation (aerosol)
Results: Negative

2-METHOXY-1-METHYLETHYL ACETATE

Method: OECD Guideline 422
Reliability: 2
Species: Rat (Crj: CD (SD); male / female)
Route of exposure: Oral
Results: NOAEL 1000 mg / kg / day
Method: OECD Guideline 453
Reliability: 1
Species: Rat (Fischer 344; male / female)

Route of exposure: Inhalation (vapors)
Results: NOEL 300 ppm
Method: Equivalent or similar from OECD 410
Reliability: 1
Species: Rabbit (New Zealand White; male / female)
Route of exposure: Dermal
Results: NOAEL> 1 000 mg / kg bw / day

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

SECTION 12. Ecological information

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation.

12.1. Toxicity

N-BUTYL ACETATE	
LC50 - for Fish	18 mg/l/96h
EC50 - for Crustacea	44 mg/l/48h
EC50 - for Algae / Aquatic Plants	397 mg/l/72h
EC10 for Algae / Aquatic Plants	196 mg/l/72h
Chronic NOEC for Algae / Aquatic Plants	196 mg/l
BLACK COAL	
EC50 - for Crustacea	5600 mg/l/48h

12.2. Persistence and degradability

METHYL ETHYL KETONE
Rapidly degradable in water, 60% in 14 days.
N-BUTYL ACETATE
Easily degradable in water, 83% in 28 days.
2-METHOXY-1-METHYLETHYL ACETATE
Rapidly biodegradable, from 70.5% to 93.4% in 45 days.

METHYL ETHYL KETONE	
Solubility in water	> 10000 mg/l
Rapidly degradable	
ALIPHATIC POLYISOCYANATE	
Solubility in water	0,1 - 100 mg/l
Degradability: information not available	
2-METHOXY-1-METHYLETHYL ACETATE	
Solubility in water	> 10000 mg/l
Rapidly degradable	

N-BUTYL ACETATE

Solubility in water	1000 - 10000 mg/l

12.3. Bioaccumulative potential

METHYL ETHYL KETONE

Partition coefficient: n-octanol/water	0,3

ALIPHATIC POLYISOCYANATE

Partition coefficient: n-octanol/water	5,54
BCF	367,7

2-METHOXY-1-METHYLETHYL ACETATE

Partition coefficient: n-octanol/water	1,2

N-BUTYL ACETATE

Partition coefficient: n-octanol/water	2,3
BCF	15,3

12.4. Mobility in soil

ALIPHATIC POLYISOCYANATE

Partition coefficient: soil/water	7,3

N-BUTYL ACETATE

Partition coefficient: soil/water	< 3

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

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.

BLACK COAL
The product can be burned in suitable incineration plants or disposed of in a suitable landfill in compliance with the regulations issued by the competent

federal, provincial, state and local authorities.

2-METHOXY-1-METHYLETHYL ACETATE
This product, when disposed of in its unused and uncontaminated state, must be treated as hazardous waste according to EC Directive 91/689 / EEC. Disposal practices must comply with all national and provincial laws and local or local laws governing hazardous waste. Further evaluation may be required for used, contaminated and residual materials. Do not discharge into sewers, onto the ground or into any body of water.

SECTION 14. Transport information

14.1. UN number

ADR / RID, IMDG, IATA:	1866

14.2. UN proper shipping name

ADR / RID:	RESIN SOLUTION
IMDG:	RESIN SOLUTION
IATA:	RESIN SOLUTION

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, IATA:	III

14.5. Environmental hazards

ADR / RID:	NO
IMDG:	NO
IATA:	NO

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 30 Special Provision: -	Limited Quantities: 5 L	Tunnel restriction code: (D/E)
IMDG:	EMS: F-E, S-E	Limited Quantities: 5 L	
IATA:	Cargo:	Maximum quantity: 220	Packaging instructions:

Pass.:	L Maximum quantity: 60 L	366 Packaging instructions: 355
Special Instructions:	A3	

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 greater than 0,1%.

Substances subject to authorisation (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

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. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Eye Irrit. 2	Eye irritation, category 2
Skin Sens. 1	Skin sensitization, category 1
STOT SE 3	Specific target organ toxicity - single exposure, category 3
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H319	Causes serious eye irritation.
H317	May cause an allergic skin reaction.
H336	May cause drowsiness or dizziness.
EUH066	Repeated exposure may cause skin dryness or cracking.
EUH204	Contains isocyanates. May produce an allergic reaction.

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. 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
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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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11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
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14. Regulation (EU) 2018/669 (XI Atp. CLP)
15. Regulation (EU) 2018/1480 (XIII Atp. CLP)
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
- 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.
Product`s classification is based on the calculation methods set out in Annex I of the CLP Regulation, unless otherwise indicated in sections 11 and 12.
The data for evaluation of chemical-physical properties are reported in section 9.

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