

## 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: D200205  
Product name: METAL-X GLOSS BLACK N.205

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

Intended use: ALKYD PRODUCT FOR METALS.

#### 1.3. Details of the supplier of the safety data sheet

Name: DGK-PELLACHROM  
Full address: RIZARI EDESSA  
District and Country: 58200 EDESSA (GR)  
GREECE  
Tel. +30 23810 26868  
Fax +30 23810 27707

e-mail address of the competent person responsible for the Safety Data Sheet: info@pellachrom.gr

#### 1.4. Emergency telephone number

For urgent inquiries refer to: +30 210-7793777

### 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.
Specific target organ toxicity - repeated exposure, category 1	H372	Causes damage to organs through prolonged or repeated exposure.
Aspiration hazard, category 1	H304	May be fatal if swallowed and enters airways.
Eye irritation, category 2	H319	Causes serious eye irritation.
Skin irritation, category 2	H315	Causes skin irritation.
Specific target organ toxicity - single exposure, category 3	H335	May cause respiratory irritation.
Specific target organ toxicity - single exposure, category 3	H336	May cause drowsiness or dizziness.
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.

Hazard pictograms:



Signal words: Danger

Hazard statements:  
H225 Highly flammable liquid and vapour.

**SECTION 2. Hazards identification ... / >>**

<b>H372</b>	Causes damage to organs through prolonged or repeated exposure.
<b>H304</b>	May be fatal if swallowed and enters airways.
<b>H319</b>	Causes serious eye irritation.
<b>H315</b>	Causes skin irritation.
<b>H335</b>	May cause respiratory irritation.
<b>H336</b>	May cause drowsiness or dizziness.
<b>H412</b>	Harmful to aquatic life with long lasting effects.
<b>EUH208</b>	Contains: 2-BUTANONE OXIME May produce an allergic reaction.

Precautionary statements:

<b>P210</b>	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
<b>P261</b>	Avoid breathing dust / fume / gas / mist / vapours / spray.
<b>P280</b>	Wear protective gloves/ protective clothing / eye protection / face protection.
<b>P301+P310</b>	IF SWALLOWED: immediately call a POISON CENTER / doctor / . . .
<b>P331</b>	Do NOT induce vomiting.
<b>P370+P378</b>	In case of fire: use . . . to extinguish.

**Contains:** NAPHTHA (PETROL.) HYDRODESULFURIZED HEAVY  
XYLENE (MIXTURE OF ISOMERS)  
N-BUTYL ACETATE  
ETHYLBENZENE

VOC (Directive 2004/42/EC) :

One-pack performance coatings.

VOC given in g/litre of product in a ready-to-use condition :

387,78

Limit value:

500,00

- Thinned with :

10,00 %

XYLENE (MIXTURE OF ISOMERS)

**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**

**3.1. Substances**

Information not relevant

**3.2. Mixtures**

**Contains:**

Identification	x = Conc. %	Classification 1272/2008 (CLP)
<b>XYLENE (MIXTURE OF ISOMERS)</b>		
CAS	1330-20-7 10 ≤ x < 20	Flam. Liq. 3 H226, Acute Tox. 4 H312, Acute Tox. 4 H332, Asp. Tox. 1 H304, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Classification note according to Annex VI to the CLP Regulation: C
EC	215-535-7	
INDEX	601-022-00-9	
<b>NAPHTHA (PETROL.) HYDRODESULFURIZED HEAVY</b>		
CAS	64742-82-1 10 ≤ x < 20	Flam. Liq. 3 H226, STOT RE 1 H372, Asp. Tox. 1 H304, STOT SE 3 H336, Aquatic Chronic 2 H411, Classification note according to Annex VI to the CLP Regulation: P
EC	265-185-4	
INDEX	649-330-00-2	
<b>BARIUM SULFATE</b>		
CAS	7727-43-7 10 ≤ x < 25	Substance with a community workplace exposure limit.
EC	231-784-4	
INDEX		
<b>N-BUTYL ACETATE</b>		
CAS	123-86-4 2 ≤ x < 5	Flam. Liq. 3 H226, STOT SE 3 H336, EUH066
EC	204-658-1	
INDEX	607-025-00-1	

**SECTION 3. Composition/information on ingredients ... />>****CALCIUM BIS 2-ETHYLHEXANOATE**CAS 136-51-6  $0 \leq x < 1$  Repr. 2 H361d, Eye Dam. 1 H318

EC 205-249-0

INDEX

**2-ETHYLHEXANOIC ACID, ZIRCONIUM SALT**CAS 22464-99-9  $0,1 \leq x < 2$  Repr. 2 H361d

EC 245-018-1

INDEX

**2-BUTANONE OXIME**CAS 96-29-7  $0 \leq x < 1$  Carc. 2 H351, Acute Tox. 4 H312, Eye Dam. 1 H318, Skin Sens. 1 H317

EC 202-496-6

INDEX 616-014-00-0

**N-METHYL-2-PYRROLIDONE**CAS 872-50-4  $0 \leq x < 0,3$  Repr. 1B H360D, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335

EC 212-828-1

INDEX 606-021-00-7

**ETHYLBENZENE**CAS 100-41-4  $0,1 \leq x < 2$  Flam. Liq. 2 H225, Acute Tox. 4 H332, Asp. Tox. 1 H304, STOT RE 2 H373

EC 202-849-4

INDEX 601-023-00-4

**TOLUENE**CAS 108-88-3  $0,05 \leq x < 0,1$  Flam. Liq. 2 H225, Repr. 2 H361d, Asp. Tox. 1 H304, STOT RE 2 H373, Skin Irrit. 2 H315, STOT SE 3 H336

EC 203-625-9

INDEX 601-021-00-3

**2-BUTOXYETHANOL**CAS 111-76-2  $0 \leq x < 0,05$  Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Eye Irrit. 2 H319, Skin Irrit. 2 H315

EC 203-905-0

INDEX 603-014-00-0

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 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

**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**

Choose the most appropriate extinguishing equipment for the specific case.

**UNSUITABLE EXTINGUISHING EQUIPMENT**

None in particular.

**5.2. Special hazards arising from the substance or mixture****HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE**

The product is neither flammable nor combustible.

**5.3. Advice for firefighters**

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. 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. If the product is flammable, use explosion-proof equipment. 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 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
CZE	Česká Republika	Nařízení vlády č. 361/2007 Sb. kterým se stanoví podmínky ochrany zdraví při práci
FRA	France	JORF n°0109 du 10 mai 2012 page 8773 texte n° 102
GBR	United Kingdom	EH40/2005 Workplace exposure limits
GRC	Ελλάδα	ΕΦΗΜΕΡΙΣ ΤΗΣ ΚΥΒΕΡΝΗΣΕΩΣ -ΤΕΥΧΟΣ ΠΡΩΤΟ Αρ. Φύλλου 19 - 9 Φεβρουαρίου 2012
POL	Polska	ROZPORZĄDZENIE MINISTRA PRACY I POLITYKI SPOŁECZNEJ z dnia 7 czerwca 2017 r
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 2017

**SECTION 8. Exposure controls/personal protection ... />>**
**XYLENE (MIXTURE OF ISOMERS)**
**Threshold Limit Value**

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
TLV	BGR	221		442		SKIN
TLV	CZE	200		400		SKIN
VLEP	FRA	221	50	442	100	SKIN
WEL	GBR	220	50	441	100	
TLV	GRC	435	100	650	150	
NDS	POL	100				
OEL	EU	221	50	442	100	SKIN
TLV-ACGIH		434	100	651	150	

**NAPHTHA (PETROL.) HYDRODESULFURIZED HEAVY**
**Threshold Limit Value**

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
NDS	POL	300		900		

**N-BUTYL ACETATE**
**Threshold Limit Value**

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
TLV	BGR	710		950		
TLV	CZE	950		1200		
VLEP	FRA	710	150	940	200	
WEL	GBR	724	150	966	200	
TLV	GRC	710	150	950	200	
NDS	POL	200		950		
TLV-ACGIH			50		150	

**2-ETHYLHEXANOIC ACID, ZIRCONIUM SALT**
**Threshold Limit Value**

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
TLV-ACGIH		5		10		

**N-METHYL-2-PYRROLIDONE**
**Threshold Limit Value**

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
WEL	GBR	40	10	80	20	SKIN
TLV	GRC	40	10	80	20	
NDS	POL	40		80		
OEL	EU	40	10	80	20	SKIN

**ETHYLBENZENE**
**Threshold Limit Value**

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
TLV	BGR	435		545		SKIN
TLV	CZE	200		500		SKIN
VLEP	FRA	88,4	20	442	100	SKIN
WEL	GBR	441	100	552	125	SKIN
TLV	GRC	435	100	545	125	
NDS	POL	200		400		
OEL	EU	442	100	884	200	SKIN
TLV-ACGIH		87	20			

**SECTION 8. Exposure controls/personal protection ... / >>**

**TOLUENE**

**Threshold Limit Value**

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
TLV	BGR	150		300		
TLV	CZE	200		500		SKIN
VLEP	FRA	76,8	20	384	100	SKIN
WEL	GBR	191	50	384	100	SKIN
TLV	GRC	192	50	384	100	
NDS	POL	100		200		
OEL	EU	192	50	384	100	SKIN
TLV-ACGIH		75,4	20			

**2-BUTOXYETHANOL**

**Threshold Limit Value**

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
TLV	BGR	98		246		SKIN
TLV	CZE	100		200		SKIN
VLEP	FRA	49	10	246	50	SKIN
WEL	GBR	123	25	246	50	SKIN
TLV	GRC	120	25			
NDS	POL	98		200		
OEL	EU	98	20	246	50	SKIN
TLV-ACGIH		97	20			

**Legend:**

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

TLV of solvent mixture: 177 mg/m3

**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.

Exposure levels must be kept as low as possible to avoid significant build-up in the organism. Manage personal protective equipment so as to guarantee maximum protection (e.g. reduction in replacement times).

**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 III 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 airtight protective goggles (see standard EN 166).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

**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.

**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	black
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	> 21 °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
Vapour pressure	Not available
Vapour density	Not available
Relative density	1,06
Solubility	THINNER 135
Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	400- 600 mPas 25C (R5)
Explosive properties	Not available
Oxidising properties	Not available

### 9.2. Other information

Total solids (250°C / 482°F)	64,10 %
VOC (Directive 2004/42/EC) :	32,09 % - 340,15 g/litre
VOC (volatile carbon) :	26,45 % - 280,38 g/litre
Gloss	84,9 (20) 97,2 (60) 101,8 (85)

## SECTION 10. Stability and reactivity

### 10.1. Reactivity

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

#### N-BUTYL ACETATE

Decomposes on contact with: water.

#### 2-BUTANONE OXIME

Decomposes under the effect of heat.

#### N-METHYL-2-PYRROLIDONE

Decomposes at temperatures above 300°C/572°F. Dissolves various plastic materials.

When exposed to the air it oxidates slowly to develop hydroperoxides. Completely mixable with water with a neutral or slightly basic reaction. It does not attack common materials.

#### TOLUENE

Avoid exposure to: light.

#### 2-BUTOXYETHANOL

Decomposes under the effect of heat.

### 10.2. Chemical stability

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

#### 2-ETHYLHEXANOIC ACID, ZIRCONIUM SALT

SADT = 210°C/410°F.

**SECTION 10. Stability and reactivity ... / >>**

## N-METHYL-2-PYRROLIDONE

Is stable up to 315°C/599°F.

**10.3. Possibility of hazardous reactions**

The vapours may also form explosive mixtures with the air.

## XYLENE (MIXTURE OF ISOMERS)

Stable in normal conditions of use and storage. Reacts violently with: strong oxidants, strong acids, nitric acid, perchlorates. May form 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.

## 2-BUTANONE OXIME

Reacts violently with: strong oxidising agents, acids.

Above the flash point (69°C/156°F), explosive mixtures can form with air.

## N-METHYL-2-PYRROLIDONE

May react dangerously with: strong oxidants, strong acids.

## ETHYLBENZENE

Reacts violently with: strong oxidants. Attacks various types of plastic materials. May form explosive mixtures with: air.

## TOLUENE

Risk of explosion on contact with: fuming sulphuric acid, nitric acid, silver perchlorate, nitrogen dioxide, non-metal halogenates, acetic acid, organic nitrocompounds. May form explosive mixtures with: air. May react dangerously with: strong oxidising agents, strong acids, sulphur.

## 2-BUTOXYETHANOL

May react dangerously with: aluminium, oxidising agents. Forms peroxides with: air.

**10.4. Conditions to avoid**

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

## N-BUTYL ACETATE

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

## 2-BUTOXYETHANOL

Avoid exposure to: sources of heat, naked flames.

**10.5. Incompatible materials**

## N-BUTYL ACETATE

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

## 2-BUTANONE OXIME

Incompatible with: oxidising substances, strong acids.

## N-METHYL-2-PYRROLIDONE

Incompatible with: sulphur, carbon disulphide, oxidising substances, aluminium, metals. Incompatible materials: natural rubbers, plastic materials.

**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-BUTANONE OXIME

May develop: nitric oxide, carbon oxides.

## N-METHYL-2-PYRROLIDONE

May develop: nitric oxide, carbon oxides.

## ETHYLBENZENE

May develop: methane, styrene, hydrogen, ethane.

## 2-BUTOXYETHANOL



May develop: hydrogen.

## 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

Information not available

#### Information on likely routes of exposure

##### XYLENE (MIXTURE OF ISOMERS)

WORKERS: inhalation; contact with the skin.

POPULATION: ingestion of contaminated food or water; inhalation of ambient air.

##### N-METHYL-2-PYRROLIDONE

WORKERS: inhalation; contact with the skin.

POPULATION: ingestion of contaminated food or water; inhalation of environmental air.

##### TOLUENE

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.

##### ETHYLBENZENE

WORKERS: inhalation; contact with the skin.

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

##### N-BUTYL ACETATE

WORKERS: inhalation; contact with the skin.

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

##### XYLENE (MIXTURE OF ISOMERS)

Toxic effect on the central nervous system (encephalopathy); irritating for the skin, conjunctiva, cornea and respiratory apparatus.

##### N-METHYL-2-PYRROLIDONE

There are no reported cases of acute or chronic intoxication or sensitisation. On volunteers, repeated skin applications caused modest and transient erythema. Oral and inhalation trials on mice and rats revealed no teratogenic effects at non embryotoxic doses. Not mutagenic in the Ames test.

##### TOLUENE

Toxic effect on the central and peripheral nervous system with encephalopathy and polyneuritis; irritating for the skin, conjunctiva, cornea and respiratory apparatus.

##### ETHYLBENZENE

As the counterparts of benzene, may have an acute effect on the central nervous system, with depression, narcosis, often preceded by dizziness and associated with headache (Ispeš). Is irritating for skin, conjunctiva and respiratory tract.

##### 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.

#### Interactive effects

##### XYLENE (MIXTURE OF ISOMERS)

Intake of alcohol interferes with the metabolism of the substance, inhibiting it. Ethanol consumption (0.8 g/kg) before a 4-hour exposure to xylene vapours (145 and 280 ppm) causes a 50% reduction in the excretion of methyl hippuric acid, whereas the concentration of xylenes in the blood increases approx. 1.5-2 times. At the same time there is an increase in the secondary side effects of the ethanol. The metabolism of the xylenes is increased by phenobarbital and 3-methyl-colantrene type enzyme inducers. Aspirin and xylenes mutually inhibit their conjugation with the glycine, which results in a decrease in urinary excretion of methyl hippuric acid. Other industrial products can interfere with the metabolism of xylenes.

**SECTION 11. Toxicological information ... / >>**

**N-METHYL-2-PYRROLIDONE**

The substance enhances the skin permeability of many other substances.

**TOLUENE**

Certain drugs and other industrial products can interfere with the metabolism of the toluene.

**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:	> 20 mg/l
LD50 (Oral) of the mixture:	Not classified (no significant component)
LD50 (Dermal) of the mixture:	>2000 mg/kg

**XYLENE (MIXTURE OF ISOMERS)**

LD50 (Oral)	3523 mg/kg Rat
LD50 (Dermal)	4350 mg/kg Rabbit
LC50 (Inhalation)	26 mg/l/4h Rat

**CALCIUM BIS 2-ETHYLHEXANOATE**

LD50 (Oral)	2043 mg/kg Rat - Fischer 344
LD50 (Dermal)	> 2000 mg/kg Rat - Wistar

**BARIUM SULFATE**

LD50 (Oral)	> 3000 mg/kg Mouse
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**2-ETHYLHEXANOIC ACID, ZIRCONIUM SALT**

LD50 (Oral)	> 5000 mg/kg Rat - Sprague-Dawley
LD50 (Dermal)	> 2000 mg/kg Rat - Wistar
LC50 (Inhalation)	> 4,3 mg/l/4h Rat

**N-METHYL-2-PYRROLIDONE**

LD50 (Oral)	4150 mg/kg
LD50 (Dermal)	> 5000 mg/kg Rat
LC50 (Inhalation)	> 5,1 mg/l/4h Rat

**TOLUENE**

LD50 (Oral)	5580 mg/kg Rat
LD50 (Dermal)	12124 mg/kg Rabbit
LC50 (Inhalation)	28,1 mg/l/4h Rat

**ETHYLBENZENE**

LD50 (Oral)	3500 mg/kg Rat
LD50 (Dermal)	15354 mg/kg Rabbit
LC50 (Inhalation)	17,2 mg/l/4h Rat

**2-BUTOXYETHANOL**

LD50 (Oral)	615 mg/kg Rat
LD50 (Dermal)	405 mg/kg Rabbit
LC50 (Inhalation)	2,2 mg/l/4h Rat

**N-BUTYL ACETATE**

LD50 (Oral)	> 6400 mg/kg Rat
LD50 (Dermal)	> 5000 mg/kg Rabbit
LC50 (Inhalation)	21,1 mg/l/4h Rat

**2-BUTANONE OXIME**

LD50 (Oral)	2400 mg/kg Rat
LD50 (Dermal)	> 1000 mg/kg Rabbit
LC50 (Inhalation)	20 mg/l/4h Rat

**SECTION 11. Toxicological information ... / >>**

NAPHTHA (PETROL.) HYDRODESULFURIZED HEAVY  
LD50 (Oral) > 5000 mg/kg Rat  
LD50 (Dermal) > 2000 mg/kg Rabbit

SKIN CORROSION / IRRITATION

Causes skin irritation

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye irritation

RESPIRATORY OR SKIN SENSITISATION

May produce an allergic reaction.

Contains:

2-BUTANONE OXIME

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

XYLENE (MIXTURE OF ISOMERS)

Classified in Group 3 (not classifiable as a human carcinogen) by the International Agency for Research on Cancer (IARC).

The US Environmental Protection Agency (EPA) affirms that "the data is inadequate for an assessment of the carcinogenic potential".

TOLUENE

Classified in Group 3 (not classifiable as a human carcinogen) by the International Agency for Research on Cancer (IARC) - (IARC, 1999).

The US Environmental Protection Agency (EPA) affirms that "the data is inadequate for an assessment of the carcinogenic potential".

ETHYLBENZENE

Classified in Group 2B (possible human carcinogen) by the International Agency for Research on Cancer (IARC) - (IARC, 2000).

Classified in Group D (not classifiable as a human carcinogen) by the US Environmental Protection Agency (EPA) - (US EPA file on-line 2014).

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

May cause respiratory irritation

May cause drowsiness or dizziness

STOT - REPEATED EXPOSURE

Causes damage to organs

ASPIRATION HAZARD

Toxic for aspiration

**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**CALCIUM BIS 2-ETHYLHEXANOATE

LC50 - for Fish > 100 mg/l/96h Oryzias latipes

EC50 - for Crustacea 910 mg/l/48h Daphnia magna

EC50 - for Algae / Aquatic Plants 49,3 mg/l/72h Desmodesmus subspicatus

**SECTION 12. Ecological information ... / >>**

2-ETHYLHEXANOIC ACID, ZIRCONIUM SALT  
LC50 - for Fish > 100 mg/l/96h Danio rerio  
EC50 - for Algae / Aquatic Plants 49,3 mg/l/72h Desmodesmus subspicatus

NAPHTHA (PETROL.) HYDRODESULFURIZED HEAVY  
LC50 - for Fish 8,2 mg/l/96h Pimephales promelas  
EC50 - for Crustacea 4,5 mg/l/48h Daphnia magna  
EC50 - for Algae / Aquatic Plants 3,1 mg/l/72h Pseudokirchnerella subcapitata

**12.2. Persistence and degradability**

XYLENE (MIXTURE OF ISOMERS)  
Solubility in water 100 - 1000 mg/l  
Degradability: information not available

CALCIUM BIS 2-ETHYLHEXANOATE  
Solubility in water > 10000 mg/l  
Rapidly degradable

BARIUM SULFATE  
Solubility in water 0,1 - 100 mg/l  
Degradability: information not available

2-ETHYLHEXANOIC ACID, ZIRCONIUM SALT  
Solubility in water < 0,1 mg/l  
Rapidly degradable

N-METHYL-2-PYRROLIDONE  
Solubility in water 1000 - 10000 mg/l  
Rapidly degradable

TOLUENE  
Solubility in water 100 - 1000 mg/l  
Rapidly degradable

ETHYLBENZENE  
Solubility in water 1000 - 10000 mg/l  
Rapidly degradable

2-BUTOXYETHANOL  
Solubility in water 1000 - 10000 mg/l  
Rapidly degradable

N-BUTYL ACETATE  
Solubility in water 1000 - 10000 mg/l

2-BUTANONE OXIME  
Solubility in water 1000 - 10000 mg/l  
Entirely degradable

NAPHTHA (PETROL.) HYDRODESULFURIZED HEAVY  
Rapidly degradable

**12.3. Bioaccumulative potential**

XYLENE (MIXTURE OF ISOMERS)  
Partition coefficient: n-octanol/water 3,12  
BCF 25,9

CALCIUM BIS 2-ETHYLHEXANOATE  
Partition coefficient: n-octanol/water 2,96

N-METHYL-2-PYRROLIDONE  
Partition coefficient: n-octanol/water -0,46

**SECTION 12. Ecological information ... / >>**

TOLUENE	
Partition coefficient: n-octanol/water	2,73
BCF	90
ETHYLBENZENE	
Partition coefficient: n-octanol/water	3,6
2-BUTOXYETHANOL	
Partition coefficient: n-octanol/water	0,81
N-BUTYL ACETATE	
Partition coefficient: n-octanol/water	2,3
BCF	15,3
2-BUTANONE OXIME	
Partition coefficient: n-octanol/water	0,63
BCF	0,5

**12.4. Mobility in soil**

XYLENE (MIXTURE OF ISOMERS)	
Partition coefficient: soil/water	2,73
N-METHYL-2-PYRROLIDONE	
Partition coefficient: soil/water	1,32
N-BUTYL ACETATE	
Partition coefficient: soil/water	< 3
2-BUTANONE OXIME	
Partition coefficient: soil/water	0,55
NAPHTHA (PETROL.) HYDRODESULFURIZED HEAVY	
Partition coefficient: soil/water	1,78

**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.

**SECTION 14. Transport information****14.1. UN number**

ADR / RID, IMDG, IATA: 1263

**14.2. UN proper shipping name**

ADR / RID: PAINT  
IMDG: PAINT  
IATA: PAINT

**SECTION 14. Transport information ... / >>****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: Pass.: Special Instructions:	Maximum quantity: 220 L Maximum quantity: 60 L A3, A72, A192	Packaging instructions: 366 Packaging instructions: 355

**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: P5cRestrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006Product

Point 3 - 40

Contained substancePoint 30 N-METHYL-2-PYRROLIDONE  
Point 48 TOLUENESubstances in Candidate List (Art. 59 REACH)

N-METHYL-2-PYRROLIDONE

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.

**SECTION 15. Regulatory information ... / >>**

VOC (Directive 2004/42/EC):  
One-pack performance coatings.

**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:

<b>Flam. Liq. 2</b>	Flammable liquid, category 2
<b>Flam. Liq. 3</b>	Flammable liquid, category 3
<b>Carc. 2</b>	Carcinogenicity, category 2
<b>Repr. 1B</b>	Reproductive toxicity, category 1B
<b>Repr. 2</b>	Reproductive toxicity, category 2
<b>Acute Tox. 4</b>	Acute toxicity, category 4
<b>STOT RE 1</b>	Specific target organ toxicity - repeated exposure, category 1
<b>Asp. Tox. 1</b>	Aspiration hazard, category 1
<b>STOT RE 2</b>	Specific target organ toxicity - repeated exposure, category 2
<b>Eye Dam. 1</b>	Serious eye damage, category 1
<b>Eye Irrit. 2</b>	Eye irritation, category 2
<b>Skin Irrit. 2</b>	Skin irritation, category 2
<b>STOT SE 3</b>	Specific target organ toxicity - single exposure, category 3
<b>Skin Sens. 1</b>	Skin sensitization, category 1
<b>Aquatic Chronic 2</b>	Hazardous to the aquatic environment, chronic toxicity, category 2
<b>Aquatic Chronic 3</b>	Hazardous to the aquatic environment, chronic toxicity, category 3
<b>H225</b>	Highly flammable liquid and vapour.
<b>H226</b>	Flammable liquid and vapour.
<b>H351</b>	Suspected of causing cancer.
<b>H360D</b>	May damage the unborn child.
<b>H361d</b>	Suspected of damaging the unborn child.
<b>H302</b>	Harmful if swallowed.
<b>H312</b>	Harmful in contact with skin.
<b>H332</b>	Harmful if inhaled.
<b>H372</b>	Causes damage to organs through prolonged or repeated exposure.
<b>H304</b>	May be fatal if swallowed and enters airways.
<b>H373</b>	May cause damage to organs through prolonged or repeated exposure.
<b>H318</b>	Causes serious eye damage.
<b>H319</b>	Causes serious eye irritation.
<b>H315</b>	Causes skin irritation.
<b>H335</b>	May cause respiratory irritation.
<b>H317</b>	May cause an allergic skin reaction.
<b>H336</b>	May cause drowsiness or dizziness.
<b>H411</b>	Toxic to aquatic life with long lasting effects.
<b>H412</b>	Harmful to aquatic life with long lasting effects.
<b>EUH066</b>	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

**SECTION 16. Other information ... / >>**

- 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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- 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.