

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 17520-4390
Product name: ZINC CHROME SPRAY

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

Intended use: Protective spray paint with chrome effect

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:

Aerosol, category 1	H222 H229	Extremely flammable aerosol. Pressurised container: may burst if heated.
Skin irritation, category 2	H315	Causes skin 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:

H222 Extremely flammable aerosol.
H229 Pressurised container: may burst if heated.
H315 Causes skin irritation.
H336 May cause drowsiness or dizziness.
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P251 Do not pierce or burn, even after use.
P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50°C / 122°F.
P211 Do not spray on an open flame or other ignition source.
P261 Avoid breathing dust / fume / gas / mist / vapours / spray.
P280 Wear protective gloves/ protective clothing / eye protection / face protection.

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)
XYLENE (MIXTURE OF ISOMERS)		
CAS 1330-20-7	27 ≤ x < 28,5	Flam. Liq. 3 H226, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Irrit. 2 H315, Classification note according to Annex VI to the CLP Regulation: C
EC 215-535-7		
INDEX 601-022-00-9		
Reg. no. 01-2119488216-32-XXXX		
PROPANE		
CAS 74-98-6	22,5 ≤ x < 24	Flam. Gas 1A H220, Press. Gas (Liq.) H280, Classification note according to Annex VI to the CLP Regulation: U
EC 200-827-9		
INDEX 601-003-00-5		
Reg. no. 01-2119486944-21-XXXX		
HYDROCARBONS, C6, ISOALKANS, <5% N-HEXANE		
CAS 64742-49-0	10,5 ≤ x < 12	Asp. Tox. 1 H304, EUH066

EC 931-254-9

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Reg. no. 01-2119484651-34-XXXX

HYDROCARBONS C4

CAS 87741-01-3

10,5 ≤ x < 12

Flam. Gas 1A H220, Press. Gas H280, Classification note according to Annex VI to the CLP Regulation: H K U

EC 289-339-5

INDEX 649-113-00-2

Reg. no. 01-2119475607-28-XXXX

**ALUMINIUM POWDER
(STABILIZED)**

CAS 7429-90-5

4,5 ≤ x < 5

Flam. Sol. 1 H228, Water-react. 2 H261, Classification note according to Annex VI to the CLP Regulation: T

EC 231-072-3

INDEX 013-002-00-1

Reg. no. 01-2119529243-45-XXXX

ETHYL ACETATE

CAS 141-78-6

2,5 ≤ x < 3

Flam. Liq. 2 H225, Eye Irrit. 2 H319, STOT SE 3 H336, EUH066

EC 205-500-4

INDEX 607-022-00-5

Reg. no. 01-2119475103-46-XXXX

**HYDROCARBONS, C14-C18, N-
ALKANES, ISOALKANES,
CYCLICS, <2% AROMATICS**

CAS -

2,5 ≤ x < 3

Asp. Tox. 1 H304

EC 927-632-8

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Reg. no. 01-2119457736-27-XXXX

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

The product is an aerosol containing propellants. For the purposes of calculation of the health hazards, propellants are not considered (unless they have health hazards). The percentages indicated are inclusive of the propellants.

Percentage of propellants: 23,00 %

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

The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.

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

If overheated, aerosol cans can deform, explode and be propelled considerable distances. Put a protective helmet on before approaching the fire. 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.

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

Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site. Send away individuals who are not suitably equipped. Wear protective gloves / protective clothing / eye protection / face protection.

6.2. Environmental precautions

Do not disperse in the environment.

6.3. Methods and material for containment and cleaning up

Use inert absorbent material to soak up leaked product. 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

Avoid bunching of electrostatic charges. Do not spray on flames or incandescent bodies. 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. Do not eat, drink or smoke during use. Do not breathe spray.

7.2. Conditions for safe storage, including any incompatibilities

Store in a place where adequate ventilation is ensured, away from direct sunlight at a temperature below 50°C / 122°F, away from any combustion sources.

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

XYLENE (MIXTURE OF ISOMERS)

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP	221	50	442	100	SKIN
VLEP	FRA	221	50	442	100	SKIN
WEL	GBR	220	50	441	100	SKIN
VLEP	ITA	221	50	442	100	SKIN
TLV	NOR	108	25			SKIN
VLE	PRT	221	50	442	100	SKIN
OEL	EU	221	50	442	100	SKIN
TLV-ACGIH		434	100	651	150	

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,327	mg/l
Normal value in marine water	0,327	mg/l
Normal value for fresh water sediment	12,46	mg/kg
Normal value for marine water sediment	12,46	mg/kg
Normal value of STP microorganisms	6,58	mg/l
Normal value for the terrestrial compartment	2,31	mg/kg

Health - Derived no-effect level - DNEL / DMEL

Effects on consumers

Effects on workers

ZINC CHROME SPRAY

TLV	NOR	2						
TLV-ACGIH		1	0,9					
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				7,9 mg/kg bw/d				
Inhalation							3,72 mg/m3	3,72 mg/m3

ETHYL ACETATE Threshold Limit Value					
Type	Country	TWA/8h		STEL/15min	Remarks / Observations
		mg/m3	ppm	mg/m3	ppm
VLA	ESP	734	200	1468	400
VLEP	FRA	1400	400		
WEL	GBR	734	200	1468	400
VLEP	ITA	734	200	1468	400
TLV	NOR	734	200		
VLE	PRT	734	200	1468	400
OEL	EU	734	200	1468	400
TLV-ACGIH		1441	400		

Predicted no-effect concentration - PNEC	
Normal value in fresh water	0,24 mg/l
Normal value in marine water	0,024 mg/l
Normal value for fresh water sediment	1,15 mg/kg
Normal value for marine water sediment	0,115 mg/kg
Normal value of STP microorganisms	650 mg/l
Normal value for the food chain (secondary poisoning)	0,2 mg/kg
Normal value for the terrestrial compartment	0,148 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				4,5 mg/kg bw/d				
Inhalation	734 mg/m3	734 mg/m3	367 mg/m3	367 mg/m3	1468 mg/m3	1468 mg/m3	734 mg/m3	734 mg/m3
Skin				37 mg/kg bw/d				63 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

None required.

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.

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, a mask with a type AX filter combined with a type P filter should be worn (see standard EN 14387).

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.

ENVIRONMENTAL EXPOSURE CONTROLS

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

HYDROCARBONS, C6, ISOALKANS, <5% N-HEXANE

Chemical resistant gloves are recommended. Nitrile, standards CEN EN 420 and EN 374 provide general requirements and lists of types of gloves.

HYDROCARBONS C4

Wear insulating gloves if contact with liquid is possible. The gloves selected must meet the European standard EN 511 for protection from the cold.

ALUMINIUM POWDER (STABILIZED)

Handle according to good industrial hygiene and safety practices. Wear suitable protective clothing and equipment.

ETHYL ACETATE

Butyl rubber gloves (opening times > 480 minutes), Neoprene™ rubber, nitrile rubber (opening times up to 480 minutes).

SECTION 9. Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Appearance	aerosol
Colour	grey
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	< 0 °C
Evaporation rate	Not available
Flammability (solid, gas)	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	>1
Relative density	0,72
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) :	72,68 % - 526,93 g/litre
VOC (volatile carbon) :	91,46 % - 663,11 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.

ETHYL ACETATE

It slowly decomposes to acetic acid and ethanol due to the action of light, air and water. Stable under normal conditions. Upon storage, it is slowly decomposed by water.

10.2. Chemical stability

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

10.3. Possibility of hazardous reactions

No hazardous reactions are foreseeable in normal conditions of use and storage.

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.

HYDROCARBONS C4

Vapors can form an explosive mixture with air

ETHYL ACETATE

Risk of explosion on contact with: alkaline metals, hydrides, oleum. May react violently with: fluorine, strong oxidising agents, chlorosulphuric acid, potassium tert-butoxide. Forms explosive mixtures with: air.

10.4. Conditions to avoid

Avoid overheating.

HYDROCARBONS, C6, ISOALKANS, <5% N-HEXANE

Open flames and high energy ignition sources.

HYDROCARBONS C4

Heat, sparks, open flames, other sources of ignition and oxidizing conditions

ETHYL ACETATE

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

Ignition sources.

10.5. Incompatible materials

Strong reducing or oxidising agents, strong acids or alkalis, hot material.

HYDROCARBONS, C6, ISOALKANS, <5% N-HEXANE

Strong oxidants.

HYDROCARBONS C4

Strong oxidizing agents, halogenated hydrocarbons, nitrogen dioxide, fluorine compounds, halogens (bromine, chlorine, fluorine), metal catalysts

ETHYL ACETATE

Incompatible with: acids, bases, strong oxidants, aluminium, nitrates, chlorosulphuric acid. Incompatible materials: plastic materials.

Oxidizing agents, acids, alkalis.

10.6. Hazardous decomposition products

HYDROCARBONS C4

Thermal decomposition can produce carbon oxides and other toxic gases and release heat and pressure

ETHYL ACETATE

Carbon oxides on combustion.

SECTION 11. Toxicological information

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.

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.

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.

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

HYDROCARBONS, C6, ISOALKANS, <5% N-HEXANE

LD50 (Oral) > 25 mg/kg Rat

LD50 (Dermal) > 5 mg/kg Rabbit

LC50 (Inhalation) 73860 ppm/4h Rat

XYLENE (MIXTURE OF ISOMERS)

Method: Equivalent or similar to EU Method B.1

Reliability: 1

Species: Rat (F344 / N; male / female)

Route of exposure: Oral

Results: LD50 = 3523 mg / kg bw

Method: Equivalent or similar to EU Method B.2

Reliability: 2

Species: Rat (male)

Route of exposure: Inhalation (vapors)

Results: LD50 = 6700 ppm

PROPANE

Method: To study the concentrations at which the effects of the CNS occur following exposure by inhalation to propane by measuring LC50 (15 min) and EC50 (CNS) (10 min) in rats.

Reliability: 2

Species: Rat (Alderley Park (SPF); male / female)

Route of exposure: Inhalation

Results: LC50> 800 000 ppm

HYDROCARBONS, C6, ISOALKANS, <5% N-HEXANE

Method: Equivalent or similar to OECD 401

Reliability: 1

Species: Rat (Sprague-Dawley; male / female)

Route of exposure: Oral

Results: LD50:> 5 000 mg / kg bw

Method: Equivalent or similar to OECD 403

Reliability: 1

Species: Rat (Crj: CD (SD); male / female)

Route of exposure: Inhalation (vapors)

Results: LC50:> 4 951 mg / m³ air

Method: Equivalent or similar to OECD 402

Reliability: 1

Species: Rat (Crj: CD (SD); male / female)

Route of exposure: Dermal

Results: LD50:> 2 000 mg / kg bw

HYDROCARBONS C4

Method: Not indicated-Read across

Reliability: 2

Species: Rat (Alderley Park; male / female)

Route of exposure: Inhalation

Results: LC50 = 1443 mg / L air

HYDROCARBONS, C14-C18, N-ALKANES, ISOALKANES, CYCLICS, <2% AROMATICS

Method: Equivalent or similar to OECD 401

Reliability: 2

Species: Rat (Sprague-Dawley; male / female)

Route of exposure: Oral

Results: LD50> 5000 mg / kg bw

Method: Equivalent or similar to OECD 403

Reliability: 1

Species: Rat (CrI: CDBR; male / female)

Route of exposure: Inhalation (aerosol)

Results: LC50> 5266 mg / m3 air

Method: Equivalent or similar to OECD 402

Reliability: 2

Species: Rabbit (New Zealand White; male / female)

Route of exposure: Dermal

Results: LD50> 3160 mg / kg bw

ETHYL ACETATE

Method: Multi-Substance Rule for the Testing of Neurotoxicity 40 CFR Part 799 (58 FR 40262)

Reliability: 1

Species: Rat (Sprague-Dawley; male / female)

Route of exposure: Inhalation (vapors)

Results: Negative

Method: Not indicated

Reliability: 2

Species: Rabbit (New Zealand White; male)

Route of exposure: Dermal

Results: LD50> 20 000 mg / kg bw

SKIN CORROSION / IRRITATION

Causes skin irritation

HYDROCARBONS, C6, ISOALKANS, <5% N-HEXANE

Method: OECD 404

Reliability: 1

Species: Rabbit (New Zealand White)

Route of exposure: Dermal

Results: Irritating

HYDROCARBONS, C14-C18, N-ALKANES, ISOALKANES, CYCLICS, <2% AROMATICS

Method: OECD 404

Reliability: 2

Species: Rabbit (SPF)

Route of exposure: Dermal

Results: Not irritating

SERIOUS EYE DAMAGE / IRRITATION

Does not meet the classification criteria for this hazard class

HYDROCARBONS, C6, ISOALKANS, <5% N-HEXANE

Method: OECD 405

Reliability: 1

Species: Rabbit (New Zealand White)

Route of exposure: Ocular

Results: Not irritating

HYDROCARBONS, C14-C18, N-ALKANES, ISOALKANES, CYCLICS, <2% AROMATICS

Method: OECD 405

Reliability: 2

Species: Rabbit (albino SPF)

Route of exposure: Ocular

Results: Not irritating

ETHYL ACETATE

Method: OECD 405

Reliability: 2

Species: Rabbit (New Zealand White)

Route of exposure: Ocular

Results: Not irritating

RESPIRATORY OR SKIN SENSITISATION

Does not meet the classification criteria for this hazard class

HYDROCARBONS, C6, ISOALKANS, <5% N-HEXANE

Method: Equivalent or similar to OECD 406

Reliability: 2

Species: guinea pig (Hartley; female)

Route of exposure: Dermal

Results: Not sensitizing

HYDROCARBONS, C14-C18, N-ALKANES, ISOALKANES, CYCLICS, <2% AROMATICS

Method: Equivalent or similar to OECD 406

Reliability: 2

Species: guinea pig (Hartley; female)

Route of exposure: Dermal

Results: Not sensitizing

Skin sensitization

ETHYL ACETATE

Method: OECD 406

Reliability: 1

Species: guinea pig (Dunkin-Hartley; female)

Route of exposure: Dermal

Results: Not sensitizing

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

XYLENE (MIXTURE OF ISOMERS)

Method: Equivalent or similar to EU Method B.10-in vitro test

Reliability: 2

Species: Chinese hamster

Results: Negative with and without metabolic activation

Method: Equivalent or similar to OECD 478

Reliability: 2

Species: Mouse (Swiss Webster; male / female)

Route of exposure: Dermal
Results: Negative

PROPANE

Method: OECD 471 in vitro test
Reliability: 1
Species: Histidine Salmonella
Results: Negative with or without metabolic activation
Method: OECD 474-test in vivo
Reliability: 1
Species: Rat (Sprague-Dawley CD; male / female)
Route of exposure: Inhalation (gas)
Results: Negative

HYDROCARBONS, C6, ISOALKANS, <5% N-HEXANE

Method: Equivalent or similar to OECD 471 - in vitro test
Reliability: 1
Species: S. typhimurium
Results: Negative with and without metabolic activation
Method: Equivalent or similar to OECD 474 - in vivo test
Reliability: 1
Species: Mouse (CD-1; male / female)
Route of exposure: Oral
Results: Negative

HYDROCARBONS C4

Method: OECD 471-in vitro test-Read across
Reliability: 1
Species: S. typhimurium
Results: Negative with and without metabolic activation
Method: Not indicated - in vivo test - Read across
Reliability: 2
Species: Rat (Fischer 344; male)
Route of exposure: Inhalation (gas)
Results: Negative

HYDROCARBONS, C14-C18, N-ALKANES, ISOALKANES, CYCLICS, <2% AROMATICS

Method: Equivalent or similar to OECD 471 in vitro test
Reliability: 1
Species: S. typhimurium
Results: Negative with and without metabolic activation
Method: Equivalent or similar to OECD 474 in vivo test
Reliability: 1
Species: Mouse (CD-1; male / female)
Route of exposure: Oral
Results: Negative

ETHYL ACETATE

Method: Equivalent or similar to OECD 471 in vitro test
Reliability: 2
Species: S. typhimurium
Results: Negative with and without metabolic activation
Method: Equivalent or similar to OECD 474 in vivo test
Reliability: 2
Species: Chinese hamster (male / female)
Route of exposure: Oral
Results: Negative

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".

HYDROCARBONS, C6, ISOALKANS, <5% N-HEXANE

Method: Equivalent or similar to OECD 403

Reliability: 1

Species: Rat (F344 / N; male / female)

Route of exposure: Inhalation (vapors)

Results: Negative. The NOAEC for rat females was determined to be 2200 mg / m3. The NOAEC for male rats was determined to be 138 mg / m3.

HYDROCARBONS C4

Method: Equivalent or similar to EPA OPP 83-5-Read across

Reliability: 1

Species: Rat (Fischer 344; male / female)

Route of exposure: Oral

Results: Negative

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

ETHYL ACETATE

Method: Equivalent or similar to OECD 416

Reliability: 1

Species: Mouse (CD-1; male / female)

Route of exposure: Oral

Results: Negative

Method: Equivalent or similar to OECD 414

Reliability: 2

Species: Rat (Sprague-Dawley)

Route of exposure: Inhalation

Results: Negative

Adverse effects on sexual function and fertility

XYLENE (MIXTURE OF ISOMERS)

Method: Not indicated

Reliability: 2

Species: Rat (CrI-CD® (SC) BR; male / female)

Route of exposure: Inhalation (vapors)

Results: Negative, NOAEC (fertility) = 500 ppm

PROPANE

Method: OECD 413

Reliability: 1

Species: Rat (Sprague-Dawley CD; male / female)

Route of exposure: Inhalation

Results: NOAEC (fertility) 10 000 ppm

HYDROCARBONS, C6, ISOALKANS, <5% N-HEXANE

Method: OECD TG 413

Reliability: 1

Species: Rat (Fischer 344; male / female)

Route of exposure: Inhalation (vapors)

Results: Negative. NOAEC (fertility) \geq 400 ppm**HYDROCARBONS C4**

Method: OECD 422

Reliability: 1

Species: Rat (Sprague-Dawley; male / female)

Route of exposure: Inhalation (gas)

Results: Negative, NOAEC (fertility) = 16000 ppm

HYDROCARBONS, C14-C18, N-ALKANES, ISOALKANES, CYCLICS, <2% AROMATICS

Method: OECD 416

Reliability: 1

Species: Rat (Sprague-Dawley; male / female)

Route of exposure: Oral

Results: Negative, NOAEL (fertility) $>$ = 750 mg / kg bw / day**Adverse effects on development of the offspring****XYLENE (MIXTURE OF ISOMERS)**

Method: Equivalent or similar to OECD 414

Reliability: 2

Species: Rat (Sprague-Dawley)

Route of exposure: Inhalation (vapors)

Results: Negative (development)

PROPANE

Method: EPA OPPTS 870.3700

Reliability: 1

Species: Rat (VAF / Plus®, Sprague-Dawley Derived (CD®) CrI: CD® IGS BR)

Route of exposure: Inhalation (gas)

Results: NOAEC (development) 10 426 ppm

HYDROCARBONS, C6, ISOALKANS, <5% N-HEXANE

Method: Guidelines for Reproduction Studies for Safety and Evaluation of Drugs for Human Use, Segment II (Teratology Study)

Reliability: 1

Species: Rat (Sprague-Dawley)

Route of exposure: Inhalation (vapors)

Results: Negative. NOAEC (development) $>$ = 300 ppm**HYDROCARBONS C4**

Method: OECD 414

Reliability: 1

Species: Rat (Sprague-Dawley)

Route of exposure: Inhalation (gas)

Results: Negative, NOAEC (development) = 10426 ppm

HYDROCARBONS, C14-C18, N-ALKANES, ISOALKANES, CYCLICS, <2% AROMATICS

Method: OECD 414
Reliability: 2
Species: Rat (Crj: CD (SD))
Route of exposure: Oral
Results: Negative, NOAEL (development)> 1000 mg / kg bw / day

STOT - SINGLE EXPOSURE

May cause drowsiness or dizziness

XYLENE (MIXTURE OF ISOMERS)

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

PROPANE

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

HYDROCARBONS, C6, ISOALKANS, <5% N-HEXANE

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

HYDROCARBONS C4

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

ALUMINIUM POWDER (STABILIZED)

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

HYDROCARBONS, C14-C18, N-ALKANES, ISOALKANES, CYCLICS, <2% AROMATICS

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

ETHYL ACETATE

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

Target organ
ETHYL ACETATE

Central nervous system

Route of exposure
ETHYL ACETATE

Inhalation

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

XYLENE (MIXTURE OF ISOMERS)

Method: Equivalent or similar to OECD 408
Reliability: 2
Species: Rat (Sprague-Dawley; male / female)
Route of exposure: Oral
Results: Negative

PROPANE

Method: OECD 422
Reliability: 1
Species: Rat (Sprague-Dawley; male / female)
Route of exposure: Inhalation (gas)
Results: NOAEC 16 000 ppm

HYDROCARBONS, C6, ISOALKANS, <5% N-HEXANE

Method: Equivalent or similar to OECD 422
Reliability: 1
Species: Rat (Sprague-Dawley; male / female)
Route of exposure: Oral
Results: Negative. NOAEL > = 1000 mg / kg / day
Method: Equivalent or similar to OECD 413
Reliability: 1
Species: Rat (albino; male / female)
Route of exposure: Inhalation (vapors)
Results: Negative. NOAEC = 10186 mg / m3

HYDROCARBONS C4

Method: OECD 413
Reliability: 1
Species: Rat (Sprague-Dawley; male / female)
Route of exposure: Inhalation (gas)
Results: Negative, NOAEC = 10000 ppm

ALUMINIUM POWDER (STABILIZED)

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

HYDROCARBONS, C14-C18, N-ALKANES, ISOALKANES, CYCLICS, <2% AROMATICS

Method: Equivalent or similar to OECD 408
Reliability: 1
Species: Rat (Sprague-Dawley; male / female)
Route of exposure: Oral
Results: Negative, NOAEL > = 5000 mg / kg bw / day
Method: OECD 413
Reliability: 1
Species: Rat (Wistar; male / female)
Route of exposure: Inhalation (vapors)
Results: Negative, NOAEC = 30 mg / L air
Method: Equivalent or similar to OECD 411
Reliability: 1
Species: Rat (Sprague-Dawley; male / female)
Route of exposure: Dermal
Results: Negative, NOAEL > 495 mg / kg bw / day

ETHYL ACETATE

Method: Equivalent or similar to EPA OTS 795.2600

Reliability: 2

Species: Rat (Sprague-Dawley; male / female)

Route of exposure: Oral

Results: NOAEL 900 mg / kg bw / day

Method: EPA OTS 798.2450

Reliability: 1

Species: Rat (CrI: CD@BR; male / female)

Route of exposure: Inhalation

Results: LOEC 350 ppm

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

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

XYLENE (MIXTURE OF ISOMERS)

LC50 - for Fish	2,6 mg/l/96h
EC50 - for Crustacea	1 mg/l/48h
EC50 - for Algae / Aquatic Plants	1,3 mg/l/72h
EC10 for Algae / Aquatic Plants	0,44 mg/l/72h
Chronic NOEC for Algae / Aquatic Plants	0,44 mg/l

12.2. Persistence and degradability

XYLENE (MIXTURE OF ISOMERS)

Rapidly degradable in water, 98% in 28 days

HYDROCARBONS, C6, ISOALKANS, <5% N-HEXANE

Rapidly degradable in water, 80% in 28 days.

HYDROCARBONS, C14-C18, N-ALKANES, ISOALKANES, CYCLICS, <2% AROMATICS

Easily degradable in water, 74% in 28 days.

ETHYL ACETATE

Rapidly degradable, 60% in 10 days.

ETHYL ACETATE

Solubility in water > 10000 mg/l

Rapidly degradable

ALUMINIUM POWDER (STABILIZED)

Solubility in water 0 mg/l

Degradability: information not available

XYLENE (MIXTURE OF ISOMERS)

Solubility in water 100 - 1000 mg/l

Degradability: information not available

PROPANE

Solubility in water 0,1 - 100 mg/l

Rapidly degradable

12.3. Bioaccumulative potential

ETHYL ACETATE

Partition coefficient: n-octanol/water 0,68

BCF 30

XYLENE (MIXTURE OF ISOMERS)

Partition coefficient: n-octanol/water 3,12

BCF 25,9

PROPANE

Partition coefficient: n-octanol/water 1,09

12.4. Mobility in soil

XYLENE (MIXTURE OF ISOMERS)

Partition coefficient: soil/water 2,73

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.

HYDROCARBONS, C6, ISOALKANS, <5% N-HEXANE

Empty Container Warning Empty Container Warning (where applicable): Empty containers may contain debris and may be hazardous. Do not attempt to fill or clean containers without proper instructions. Empty drums must be completely drained and stored safely until they are properly reconditioned or disposed of. Empty containers must be recycled, recovered or disposed of through an appropriately qualified or authorized contractor and in accordance with government regulations. DO NOT PRESSURIZE, CUT, WELD, BRAZE, WELD, DRILL, GRIND OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY OR OTHER IGNITION SOURCES. MAY EXPLODE AND CAUSE INJURY OR DEATH.

HYDROCARBONS C4

- Comply with applicable local, state or international regulations regarding the disposal of solid or hazardous waste and / or disposal of containers.
- Contaminated product, soil, water, container residues and spill cleaning materials can be hazardous waste.
- The contaminated product, soil or water must be considered dangerous due to the potential evolution of flammable vapor.

- Follow appropriate grounding procedures to avoid static electricity.
- The product must not be allowed to enter drains, water courses or the soil.

ETHYL ACETATE

Dispose of as hazardous waste. Recover or recycle if possible. Otherwise incineration. Dispose according to local regulations.

Disposal of the container: empty the container completely. Empty containers may contain highly flammable residues. Do not cut, grind, puncture, weld or dispose of containers unless adequate precautions have been taken against this hazard. Do not remove the container labels until they are cleaned. Send to drum recovery or metal recovery.

SECTION 14. Transport information

14.1. UN number

ADR / RID, IMDG, 1950
IATA:

14.2. UN proper shipping name

ADR / RID: AEROSOLS
IMDG: AEROSOLS
IATA: AEROSOLS, FLAMMABLE

14.3. Transport hazard class(es)

ADR / RID: Class: 2 Label: 2.1
IMDG: Class: 2 Label: 2.1
IATA: Class: 2 Label: 2.1



14.4. Packing group

ADR / RID, IMDG, -
IATA:

14.5. Environmental hazards

ADR / RID: NO
IMDG: NO
IATA: NO

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: --	Limited Quantities: 1 L	Tunnel restriction code: (D)
IMDG:	Special Provision: - EMS: F-D, S-U	Limited Quantities: 1 L	

IATA:	Cargo:	Maximum quantity: 150 Kg	Packaging instructions: 203
	Pass.:	Maximum quantity: 75 Kg	Packaging instructions: 203
	Special Instructions:	A145, A167, A802	

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: P3a

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

Product Point 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. Gas 1A	Flammable gas, category 1A
Aerosol 1	Aerosol, category 1
Aerosol 3	Aerosol, category 3
Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Flam. Sol. 1	Flammable solid, category 1
Water-react. 2	Substance or mixture which in contact with water emits flammable gas, category 2
Press. Gas (Liq.)	Liquefied gas
Press. Gas	Pressurised gas
Acute Tox. 4	Acute toxicity, category 4
Asp. Tox. 1	Aspiration hazard, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H220	Extremely flammable gas.
H222	Extremely flammable aerosol.
H229	Pressurised container: may burst if heated.
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H228	Flammable solid.
H261	In contact with water releases flammable gases.
H280	Contains gas under pressure; may burst if heated.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H304	May be fatal if swallowed and enters airways.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H336	May cause drowsiness or dizziness.
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

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- The Merck Index. - 10th Edition
 - Handling Chemical Safety
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 - IFA GESTIS 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.

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:

02 / 03 / 04 / 08 / 09 / 10 / 11 / 12 / 13 / 15 / 16.