

SAFETY DATA SHEET

(REACH regulation (EC) n° 1907/2006 - n° 2020/878)

SECTION 1 : IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**1.1. Product identifier**

Product name : EKOTHAN HES VERNIS.

Product code : EKOTHAN SEP 2024..

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

Universal, colorless, two-component polyurethane coating for professional use.

1.3. Details of the supplier of the safety data sheet

Registered company name : PEINTURES CIMENTOL.

Address : 7 route de Bû - ZAC de la Prévôté.78550.Houdan..

Telephone : +33 (0)1 30 46 19 70. Fax : +33 (0)1 30 46 19 74.

peintures.cimentol@cimentol.com

www.cimentol.com

1.4. Emergency telephone number : +33 (0)1 45 42 59 59.Association/Organisation : INRS / ORFILA <http://www.centres-antipoison.net>.**SECTION 2 : HAZARDS IDENTIFICATION****2.1. Classification of the substance or mixture****In compliance with EC regulation No. 1272/2008 and its amendments.**

Skin sensitisation, Category 1 (Skin Sens. 1, H317).

Specific target organ toxicity (single exposure), Category 3 (STOT SE 3, H336).

Hazardous to the aquatic environment - Chronic hazard, Category 3 (Aquatic Chronic 3, H412).

This mixture does not present a physical hazard. Refer to the recommendations regarding the other products present on the site.

2.2. Label elements**In compliance with EC regulation No. 1272/2008 and its amendments.**

Hazard pictograms :



GHS07

Signal Word :

WARNING

Product identifiers :

EC 412-060-9 ACIDE ASPARTIQUE, N,N'-[METHYLENEBIS(2-MRTHYL-4, 1-CYCLOHEXANEDIYL)BIS-, 1,1',4,4'-TETRATHYL ESTHER.

EC 429-270-1 ACIDE ASPARTIQUE, N,N'-(METHYLENEDI-4,1-CYCLOHEXANEDIYL)BIS-,1,1',4,4'-TETRAETHYL ESTER.

EC 918-668-5 HYDROCARBONS, C9, AROMATICS

EC 203-603-9 ACÉTATE DE 2-MÉTHOXY-1-MÉTHYLÉTHYLE.

Additional labeling :

EUH204 Contains isocyanates. May produce an allergic reaction.

Hazard statements :

H317 May cause an allergic skin reaction.

H336 May cause drowsiness or dizziness.

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements - Prevention :

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P271 Use only outdoors or in a well-ventilated area.

P272 Contaminated work clothing should not be allowed out of the workplace.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/ ...

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Precautionary statements - Response :

P302 + P352

IF ON SKIN: Wash with plenty of water/...

P304 + P340

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P312

Call a POISON CENTER/doctor/... if you feel unwell.

P321

Specific treatment (see ... on this label).

P333 + P313

If skin irritation or rash occurs: Get medical advice/attention.

P362 + P364

Take off contaminated clothing and wash it before reuse.

Precautionary statements - Storage :

P405

Store locked up.

Precautionary statements - Disposal :

P501

Dispose of contents/container to ...

2.3. Other hazards

The mixture does not contain substances classified as 'Substances of Very High Concern' (SVHC) $\geq 0.1\%$ published by the European Chemicals Agency (ECHA) under article 59 of REACH: <http://echa.europa.eu/fr/candidate-list-table>

The mixture fulfils neither the PBT nor the vPvB criteria for mixtures in accordance with annexe XIII of the REACH regulations EC 1907/2006.

The mixture does not contain substances $\geq 0.1\%$ with endocrine disrupting properties in accordance with the criteria of the Delegated Regulation (EU) 2017/2100 of the Commission or Regulation (EU) 2018/605 of the Commission.

SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS**3.2. Mixtures****Composition :**

Identification	Classification (EC) 1272/2008	Note	%
CAS: 136210-32-7 EC: 412-060-9 REACH: 01-0000015937-58-xxxx ACIDE ASPARTIQUE, N,N'-[METHYLENEBIS(2-MRTHYL-4, 1-CYCLOHEXANEDIYL)BIS-, 1,1',4,4' -TETRATHYL ESTHER.	GHS07 Wng Skin Sens. 1, H317 Aquatic Chronic 3, H412		25 \leq x % < 50
CAS: 136210-30-5 EC: 429-270-1 REACH: 01-0000017556-64-XXXXX ACIDE ASPARTIQUE, N,N'-(METHYLENEDI-4,1-CYCLOHEXANED IYL)BIS-,1,1',4,4'-TETRAETHYL ESTER.	GHS07 Wng Skin Sens. 1, H317 Aquatic Chronic 3, H412		10 \leq x % < 25
EC: 918-668-5 REACH: 01-2119455851-35-xxxx HYDROCARBONS, C9, AROMATICS	GHS09, GHS07, GHS08, GHS02 Dgr Flam. Liq. 3, H226 Asp. Tox. 1, H304 STOT SE 3, H335 STOT SE 3, H336 Aquatic Chronic 2, H411		10 \leq x % < 25
CAS: 108-65-6 EC: 203-603-9 REACH: 01-2119475791-29-xxxx ACÉTATE DE 2-MÉTHOXY-1-MÉTHYLÉTHYLE.	GHS07, GHS02 Wng Flam. Liq. 3, H226 STOT SE 3, H336	[i]	10 \leq x % < 25
CAS: 64742-47-8 EC: 265-149-8 DISTILLATS LÉGERS (PÉTROLE), HYDROTRAITÉS	GHS08 Dgr Asp. Tox. 1, H304		1 \leq x % < 2.5

EKOTHAN HES VERNIS. - EKOTHAN SEP 2024.**Specific concentration limits:**

Identification	Specific concentration limits	ATE
EC: 918-668-5 REACH: 01-2119455851-35-xxxx HYDROCARBONS, C9, AROMATICS		dermal: ATE = 3160 mg/kg BW oral: ATE = 3492 mg/kg BW
CAS: 108-65-6 EC: 203-603-9 REACH: 01-2119475791-29-xxxx ACÉTATE DE 2-MÉTHOXY-1-MÉTHYLÉTHYLE.		oral: ATE = 6190 mg/kg BW

Information on ingredients :

(Full text of H-phrases: see section 16)

[i] Substance for which maximum workplace exposure limits are available.

SECTION 4 : FIRST AID MEASURES

As a general rule, in case of doubt or if symptoms persist, always call a doctor.

NEVER induce swallowing by an unconscious person.

4.1. description of first aid measures**In the event of exposure by inhalation :**

In the event of massive inhalation, remove the person exposed to fresh air. Keep warm and at rest.

If the person is unconscious, place in recovery position. Notify a doctor in all events, to ascertain whether observation and supportive hospital care will be necessary.

If breathing is irregular or has stopped, effect mouth-to-mouth resuscitation and call a doctor.

In the event of splashes or contact with eyes :

Wash thoroughly with fresh, clean water for 15 minutes holding the eyelids open.

In the event of splashes or contact with skin :

Remove contaminated clothing and wash the skin thoroughly with soap and water or a recognised cleaner.

Watch out for any remaining product between skin and clothing, watches, shoes, etc.

In the event of an allergic reaction, seek medical attention.

If the contaminated area is widespread and/or there is damage to the skin, a doctor must be consulted or the patient transferred to hospital.

In the event of swallowing :

Do not give the patient anything orally.

In the event of swallowing, if the quantity is small (no more than one mouthful), rinse the mouth with water and consult a doctor.

Keep the person exposed at rest. Do not force vomiting.

Seek medical attention immediately, showing the label.

If swallowed accidentally, call a doctor to ascertain whether observation and hospital care will be necessary. Show the label.

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

No data available.

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

No data available.

SECTION 5 : FIREFIGHTING MEASURES

Non-flammable.

5.1. Extinguishing media**Suitable methods of extinction**

In the event of a fire, use :

- sprayed water or water mist
- foam
- multipurpose ABC powder

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- BC powder
- carbon dioxide (CO₂)

Unsuitable methods of extinction

In the event of a fire, do not use :

- water jet

5.2. Special hazards arising from the substance or mixture

A fire will often produce a thick black smoke. Exposure to decomposition products may be hazardous to health.

Do not breathe in smoke.

In the event of a fire, the following may be formed :

- carbon monoxide (CO)
- carbon dioxide (CO₂)

5.3. Advice for firefighters

No data available.

SECTION 6 : ACCIDENTAL RELEASE MEASURES**6.1. Personal precautions, protective equipment and emergency procedures**

Consult the safety measures listed under headings 7 and 8.

For non first aid worker

Avoid inhaling the vapors.

Avoid any contact with the skin and eyes.

If a large quantity has been spilt, evacuate all personnel and only allow intervention by trained operators equipped with safety apparatus.

For first aid worker

First aid workers will be equipped with suitable personal protective equipment (See section 8).

6.2. Environmental precautions

Contain and control the leaks or spills with non-combustible absorbent materials such as sand, earth, vermiculite, diatomaceous earth in drums for waste disposal.

Prevent any material from entering drains or waterways.

6.3. Methods and material for containment and cleaning up

Clean preferably with a detergent, do not use solvents.

Contaminated areas must be cleaned very quickly.

A possible decontaminant for flammable products may be : (expressed by volume) water (45 parts), ethanol or isopropanol (50 parts), concentrated ammonia (d-0.880) (5 parts). For non-flammable products: sodium carbonate (5 parts), water (95 parts).

This residue must be stored for disposal in compliance with current regulations (see section 13).

6.4. Reference to other sections

No data available.

SECTION 7 : HANDLING AND STORAGE

Requirements relating to storage premises apply to all facilities where the mixture is handled.

Individuals with a history of skin sensitisation should not, under any circumstance, handle this mixture.

7.1. Precautions for safe handling

Always wash hands after handling.

Remove and wash contaminated clothing before re-using.

Ensure that there is adequate ventilation, especially in confined areas.

Fire prevention :

Handle in well-ventilated areas.

Prevent access by unauthorised personnel.

Recommended equipment and procedures :

For personal protection, see section 8.

Observe precautions stated on label and also industrial safety regulations.

Avoid inhaling vapors.

Avoid inhaling vapors. Carry out any industrial operation which may give rise to this in a sealed apparatus.

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Provide vapor extraction at the emission source and also general ventilation of the premises.

Also provide breathing apparatus for certain short tasks of an exceptional nature and for emergency interventions.

In all cases, recover emissions at source.

Packages which have been opened must be reclosed carefully and stored in an upright position.

Prohibited equipment and procedures :

No smoking, eating or drinking in areas where the mixture is used.

7.2. Conditions for safe storage, including any incompatibilities

No data available.

Storage

Keep the container tightly closed in a dry, well-ventilated place.

The floor must be impermeable and form a collecting basin so that, in the event of an accidental spillage, the liquid cannot spread beyond this area.

Packaging

Always keep in packaging made of an identical material to the original.

7.3. Specific end use(s)

No data available.

SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION**8.1. Control parameters****Occupational exposure limits :**

- European Union (2022/431, 2019/1831, 2017/2398, 2017/164, 2009/161, 2006/15/CE, 2000/39/CE, 98/24/CE) :

CAS	VME-mg/m3 :	VME-ppm :	VLE-mg/m3 :	VLE-ppm :	Notes :
108-65-6	275	50	550	100	Peau

- France (INRS - Outils 65 / 2021-1849, 2021-1763, decree of 09/12/2021) :

CAS	VME-ppm :	VME-mg/m3 :	VLE-ppm :	VLE-mg/m3 :	Notes :	TMP No :
108-65-6	50	275	100	550	VLRC	

- UK / WEL (Workplace exposure limits, EH40/2005, Fourth Edition 2020) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
108-65-6	50 ppm 274 mg/m3	100 ppm 548 mg/m3		Sk	

Derived no effect level (DNEL) or derived minimum effect level (DMEL):

ACÉTATE DE 2-MÉTHOXY-1-MÉTHYLÉTHYLE. (CAS: 108-65-6)

Final use:

Exposure method:
Potential health effects:
DNEL :

Workers.

Dermal contact.
Long term systemic effects.
153.5 mg/kg body weight/day

Exposure method:
Potential health effects:
DNEL :

Inhalation.
Long term systemic effects.
275 mg of substance/m3

Final use:

Exposure method:
Potential health effects:
DNEL :

Consumers.

Ingestion.
Short term systemic effects.
1.67 mg/kg body weight/day

Exposure method:
Potential health effects:
DNEL :

Dermal contact.
Long term systemic effects.
54.8 mg/kg body weight/day

Exposure method:
Potential health effects:

Inhalation.
Long term systemic effects.

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DNEL : 33 mg of substance/m³

HYDROCARBONS, C9, AROMATICS**Final use:**

Exposure method: Dermal contact.
Potential health effects: Long term systemic effects.
DNEL : 25 mg/kg body weight/day

Exposure method: Inhalation.
Potential health effects: Long term systemic effects.
DNEL : 150 mg of substance/m³

Final use:

Exposure method: Ingestion.
Potential health effects: Long term systemic effects.
DNEL : 11 mg/kg body weight/day

Exposure method: Dermal contact.
Potential health effects: Long term systemic effects.
DNEL : 11 mg/kg body weight/day

Exposure method: Inhalation.
Potential health effects: Long term systemic effects.
DNEL : 32 mg of substance/m³

ACIDE ASPARTIQUE, N,N'-(METHYLENEDI-4,1-CYCLOHEXANEDIYL)BIS-,1,1',4,4'-TETRAETHYL ESTER. (CAS: 136210-30-5)**Final use:**

Exposure method: Dermal contact.
Potential health effects: Long term systemic effects.
DNEL : 4 mg/kg body weight/day

Exposure method: Inhalation.
Potential health effects: Short term systemic effects.
DNEL : 112 mg of substance/m³

Exposure method: Inhalation.
Potential health effects: Long term systemic effects.
DNEL : 28 mg of substance/m³

Final use:

Exposure method: Ingestion.
Potential health effects: Short term systemic effects.
DNEL : 1.4 mg/kg body weight/day

Exposure method: Ingestion.
Potential health effects: Long term systemic effects.
DNEL : 1.4 mg/kg body weight/day

Exposure method: Dermal contact.
Potential health effects: Short term systemic effects.
DNEL : 1.4 mg/kg body weight/day

Exposure method: Dermal contact.
Potential health effects: Long term systemic effects.

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DNEL : 1.4 mg/kg body weight/day

Exposure method: Inhalation.
Potential health effects: Short term systemic effects.
DNEL : 4.8 mg of substance/m³

Exposure method: Inhalation.
Potential health effects: Long term systemic effects.
DNEL : 4.8 mg of substance/m³

ACIDE ASPARTIQUE, N,N'-[METHYLENEBIS(2-MRTHYL-4, 1-CYCLOHEXANEDIYL)BIS-, 1,1',4,4' -TETRATHYL ESTHER. (CAS: 136210-32-7)

Final use:

Exposure method: **Workers.**
Potential health effects: Dermal contact.
DNEL : Long term systemic effects.
11.9 mg/kg body weight/day

Exposure method: Inhalation.
Potential health effects: Long term systemic effects.
DNEL : 84 mg of substance/m³

Exposure method: Inhalation.
Potential health effects: Short term systemic effects.
DNEL : 672 mg of substance/m³

Final use:

Exposure method: **Consumers.**
Potential health effects: Ingestion.
DNEL : Long term systemic effects.
4.2 mg/kg body weight/day

Exposure method: Ingestion.
Potential health effects: Short term systemic effects.
DNEL : 4.2 mg/kg body weight/day

Exposure method: Dermal contact.
Potential health effects: Long term systemic effects.
DNEL : 4.2 mg/kg body weight/day

Exposure method: Dermal contact.
Potential health effects: Short term systemic effects.
DNEL : 4.2 mg/kg body weight/day

Exposure method: Inhalation.
Potential health effects: Long term systemic effects.
DNEL : 14.5 mg of substance/m³

Exposure method: Inhalation.
Potential health effects: Short term systemic effects.
DNEL : 14.5 mg of substance/m³

Predicted no effect concentration (PNEC):

ACÉTATE DE 2-MÉTHOXY-1-MÉTHYLÉTHYLE. (CAS: 108-65-6)

Environmental compartment: Soil.
PNEC : 0.29 mg/kg

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Environmental compartment: PNEC :	Fresh water. 0.635 mg/l
Environmental compartment: PNEC :	Sea water. 0.0635 mg/l
Environmental compartment: PNEC :	Intermittent waste water. 6.35 mg/l
Environmental compartment: PNEC :	Fresh water sediment. 3.29 mg/kg
Environmental compartment: PNEC :	Marine sediment. 0.329 µg/kg
Environmental compartment: PNEC :	Waste water treatment plant. 100 mg/l

ACIDE ASPARTIQUE, N,N'-(METHYLENEDI-4,1-CYCLOHEXANEDIYL)BIS-, 1,1',4,4'-TETRAETHYL ESTER. (CAS: 136210-30-5)

Environmental compartment: PNEC :	Fresh water. 0.00013 mg/l
Environmental compartment: PNEC :	Sea water. 0.000013 mg/l
Environmental compartment: PNEC :	Fresh water sediment. 0.21 mg/kg
Environmental compartment: PNEC :	Marine sediment. 0.02 mg/kg
Environmental compartment: PNEC :	Waste water treatment plant. 0.1 mg/kg

ACIDE ASPARTIQUE, N,N'-[METHYLENEBIS(2-MRTHYL-4, 1-CYCLOHEXANEDIYL)BIS-, 1,1',4,4' -TETRATHYL ESTHER. (CAS: 136210-32-7)

Environmental compartment: PNEC :	Soil. 0.1 mg/kg
Environmental compartment: PNEC :	Fresh water. 0.00013 mg/l
Environmental compartment: PNEC :	Sea water. 0.000013 mg/l
Environmental compartment: PNEC :	Intermittent waste water. 31.1 mg/l
Environmental compartment: PNEC :	Fresh water sediment. 0.21 mg/kg
Environmental compartment: PNEC :	Marine sediment. 0.02 mg/kg

8.2. Exposure controls

Personal protection measures, such as personal protective equipment

Pictogram(s) indicating the obligation of wearing personal protective equipment (PPE) :



Use personal protective equipment that is clean and has been properly maintained.

Store personal protective equipment in a clean place, away from the work area.

Never eat, drink or smoke during use. Remove and wash contaminated clothing before re-using. Ensure that there is adequate ventilation, especially in confined areas.

- Eye / face protection

Avoid contact with eyes.

Use eye protectors designed to protect against liquid splashes

Before handling, wear safety goggles in accordance with standard ISO 16321.

- Hand protection

Use suitable protective gloves that are resistant to chemical agents in accordance with standard EN ISO 374-1.

Gloves must be selected according to the application and duration of use at the workstation.

Protective gloves need to be selected according to their suitability for the workstation in question : other chemical products that may be handled, necessary physical protections (cutting, pricking, heat protection), level of dexterity required.

Type of gloves recommended :

- PVA (Polyvinyl alcohol)

- Butyl Rubber (Isobutylene-isoprene copolymer)

Recommended properties :

- Antistatic gloves in accordance with standard EN16350

- Body protection

Avoid skin contact.

Wear suitable protective clothing.

Suitable type of protective clothing :

In the event of substantial spatter, wear liquid-tight protective clothing against chemical risks (type 3) in accordance with EN14605/A1 to prevent skin contact.

In the event of a risk of splashing, wear protective clothing against chemical risks (type 6) in accordance with EN13034/A1 to prevent skin contact.

Work clothing worn by personnel shall be laundered regularly.

After contact with the product, all parts of the body that have been soiled must be washed.

- Respiratory protection

Avoid inhaling vapors.

If the ventilation is insufficient, wear appropriate breathing apparatus.

When workers are confronted with concentrations that are above occupational exposure limits, they must wear a suitable, approved, respiratory protection device.

Anti-gas and vapour filter(s) (Combined filters) in accordance with standard EN14387 :

- A1 (Brown)

SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state

Physical state : Viscous liquid.

Colour

Unspecified

Odour

Odour threshold : Not stated.

Melting point

Melting point/melting range : Not relevant.

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Freezing point

Freezing point / Freezing range : Not stated.

Boiling point or initial boiling point and boiling range

Boiling point/boiling range : Not relevant.

Flammability

Flammability (solid, gas) : Not stated.

Lower and upper explosion limit

Explosive properties, lower explosivity limit (%) Not stated.

:

Explosive properties, upper explosivity limit (%) Not stated.

:

Flash point

Flash point interval : Not relevant.

Auto-ignition temperature

Self-ignition temperature : Not relevant.

Decomposition temperature

Decomposition point/decomposition range : Not relevant.

pH

pH (aqueous solution) : Not stated.

pH : Not relevant.

Kinematic viscosityViscosity : > 20.5 mm²/s.**Solubility**

Water solubility : Insoluble.

Fat solubility : Not stated.

Partition coefficient n-octanol/water (log value)

Partition coefficient: n-octanol/water : Not stated.

Vapour pressure

Vapour pressure (50°C) : Below 110 kPa (1.10 bar).

Density and/or relative density

Density : > 1

Relative vapour density

Vapour density : Not stated.

Particle characteristics

The mixture does not contain nanoforms.

9.2. Other information

No data available.

9.2.1. Information with regard to physical hazard classes

No data available.

9.2.2. Other safety characteristics

No data available.

SECTION 10 : STABILITY AND REACTIVITY**10.1. Reactivity**

Keep away from oxidising agents and strongly acidic or basic materials to avoid exothermic reactions.

10.2. Chemical stability

This mixture is stable under the recommended handling and storage conditions in section 7.

10.3. Possibility of hazardous reactions

When exposed to high temperatures, the mixture can release hazardous decomposition products, such as carbon monoxide and dioxide, fumes and nitrogen oxide.

The mixture can also release hydrogen cyanide, amines and alcohols.

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No data available.

10.5. Incompatible materials

No data available.

10.6. Hazardous decomposition products

The thermal decomposition may release/form :

- carbon monoxide (CO)
- carbon dioxide (CO₂)

SECTION 11 : TOXICOLOGICAL INFORMATION**11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008**

Exposure to vapours from solvents in the mixture in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on kidney, liver and central nervous system.

Symptoms produced will include headaches, numbness, dizziness, fatigue, muscular asthenia and, in extreme cases, loss of consciousness.

Repeated or prolonged contact with the mixture may cause removal of natural oil from the skin resulting in non-allergic contact dermatitis and absorption through the skin.

Splashes in the eyes may cause irritation and reversible damage

Narcotic effects may occur, such as drowsiness, narcosis, decreased alertness, loss of reflexes, lack of coordination or dizziness.

Effects may also occur in the form of violent headaches or nausea, judgement disorder, giddiness, irritability, fatigue or memory disturbance.

May cause an allergic reaction by skin contact.

Based on isocyanate properties and considering the toxicological data of similar mixtures, this preparation may cause irritations and/or sensitisations of the respiratory system.

It may therefore bring about asthma, respiratory difficulties and angina pectoris.

Those susceptible may display asthmatic symptoms when exposed to atmospheres with an isocyanate concentration well below those of the VLE : exposure limits.

Repeated exposure may cause permanent respiratory problems.

11.1.1. Substances**Acute toxicity :**

ACÉTATE DE 2-MÉTHOXY-1-MÉTHYLÉTHYLE. (CAS: 108-65-6)

Oral route :	LD50 = 6190 mg/kg bodyweight/day Species : Rat OECD Guideline 401 (Acute Oral Toxicity)
Dermal route :	LD50 > 5000 mg/kg bodyweight/day Species : Rat OECD Guideline 402 (Acute Dermal Toxicity)
Inhalation route (Vapours) :	LC50 > 1883 mg/l Species : Rat OECD Guideline 403 (Acute Inhalation Toxicity)

HYDROCARBONS, C9, AROMATICS

Oral route :	LD50 = 3492 mg/kg bodyweight/day Species : Rat OECD Guideline 401 (Acute Oral Toxicity)
Dermal route :	LD50 = 3160 mg/kg bodyweight/day Species : Rabbit OECD Guideline 402 (Acute Dermal Toxicity)

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Inhalation route (Vapours) : LC50 6193

ACIDE ASPARTIQUE, N,N'-(METHYLENEDI-4,1-CYCLOHEXANEDIYL)BIS-,1,1',4,4'-TETRAETHYL ESTER. (CAS: 136210-30-5)

Oral route : LD50 > 2.000 mg/kg bodyweight/day
Species : Rat
REACH Method B.1 (Acute Toxicity (Oral))

Dermal route : LD50 > 2.000 mg/kg bodyweight/day
Species : Rat
REACH Method B.3 (Acute Toxicity (Dermal))

Inhalation route (n/a) : LC50 > 4.224 mg/l
Species : Rat

ACIDE ASPARTIQUE, N,N'-[METHYLENEBIS(2-MRTHYL-4, 1-CYCLOHEXANEDIYL)BIS-, 1,1',4,4' -TETRATHYL ESTHER. (CAS: 136210-32-7)

Oral route : LD50 > 2.000 mg/kg bodyweight/day
Species : Rat
REACH Method B.1 (Acute Toxicity (Oral))

Dermal route : LD50 > 2.000 mg/kg bodyweight/day
Species : Rat

Inhalation route (n/a) : LC50 > 4.224 mg/l
Species : Rat
OECD Guideline 403 (Acute Inhalation Toxicity)

Germ cell mutagenicity :

ACIDE ASPARTIQUE, N,N'-[METHYLENEBIS(2-MRTHYL-4, 1-CYCLOHEXANEDIYL)BIS-, 1,1',4,4' -TETRATHYL ESTHER. (CAS: 136210-32-7)

Mutagenesis (in vivo) : Negative.
Species : Mouse
OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)

Mutagenesis (in vitro) : Negative.
Species : Others
OECD Guideline 471 (Bacterial Reverse Mutation Assay)

ACIDE ASPARTIQUE, N,N'-(METHYLENEDI-4,1-CYCLOHEXANEDIYL)BIS-,1,1',4,4'-TETRAETHYL ESTER. (CAS: 136210-30-5)

No mutagenic effect.

Mutagenesis (in vivo) : Negative.
Species : Others

Mutagenesis (in vitro) : Negative.
Species : Others
OECD Guideline 471 (Bacterial Reverse Mutation Assay)

Ames test (in vitro) : Negative.

Reproductive toxicant :

ACIDE ASPARTIQUE, N,N'-(METHYLENEDI-4,1-CYCLOHEXANEDIYL)BIS-,1,1',4,4'-TETRAETHYL ESTER. (CAS: 136210-30-5)

No toxic effect for reproduction

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Study on fertility : Species : Human
OECD Guideline 414 (Prenatal Developmental Toxicity Study)

Study on development : Species : Human
OECD Guideline 416 (Two-Generation Reproduction Toxicity Study)

Specific target organ systemic toxicity - repeated exposure :

ACIDE ASPARTIQUE, N,N'-(METHYLENEDI-4,1-CYCLOHEXANEDIYL)BIS-, 1,1',4,4'-TETRAETHYL ESTER. (CAS: 136210-30-5)

Oral route : C = 1.000 mg/kg bodyweight/day
Species : Rat
Duration of exposure : 90 days
OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity in Rodents)

ACIDE ASPARTIQUE, N,N'-[METHYLENEBIS(2-MRTHYL-4, 1-CYCLOHEXANEDIYL)BIS-, 1,1',4,4' -TETRATHYL ESTHER. (CAS: 136210-32-7)

Oral route : C = 1.000 mg/kg bodyweight/day
Species : Rat
Duration of exposure : 90 days
OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity in Rodents)

11.1.2. Mixture**Respiratory or skin sensitisation :**

Contains isocyanates. May cause an allergic reaction.

11.2. Information on other hazards**Endocrine disrupting properties**

The mixture does not contain any substance evaluated as an endocrine disruptor with effects on human health.

SECTION 12 : ECOLOGICAL INFORMATION

Harmful to aquatic life with long lasting effects.

The product must not be allowed to run into drains or waterways.

12.1. Toxicity**12.1.1. Substances**

ACÉTATE DE 2-MÉTHOXY-1-MÉTHYLÉTHYLE. (CAS: 108-65-6)

Fish toxicity : LC50 = 134 mg/l
Species : *Oncorhynchus mykiss*
Duration of exposure : 96 h
OECD Guideline 203 (Fish, Acute Toxicity Test)

NOEC = 47.5 mg/l
Species : *Oryzias latipes*
Duration of exposure : 14 days
OECD Guideline 204 (Fish, Prolonged Toxicity Test: 14-day Study)

Crustacean toxicity : EC50 > 500 mg/l
Species : *Daphnia magna*
Duration of exposure : 48 h

NOEC >= 100 mg/l
Species : *Daphnia magna*
Duration of exposure : 21 days
OECD Guideline 211 (*Daphnia magna* Reproduction Test)

Algae toxicity : ECr50 > 1000 mg/l

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Species : *Scenedesmus capricornutum*
Duration of exposure : 72 h
OECD Guideline 201 (Alga, Growth Inhibition Test)

ACIDE ASPARTIQUE, N,N'-(METHYLENEDI-4,1-CYCLOHEXANEDIYL)BIS-, 1,1',4,4'-TETRAETHYL ESTER. (CAS: 136210-30-5)

Fish toxicity : LC50 = 66 mg/l
Species : *Danio rerio*
Duration of exposure : 96 h
OECD Guideline 203 (Fish, Acute Toxicity Test)

Crustacean toxicity : EC50 = 88.6 mg/l
Species : *Daphnia magna*
Duration of exposure : 48 h

NOEC = 0.01 mg/l
Species : *Daphnia magna*
Duration of exposure : 21 days
REACH Method C.20 (Daphnia magna Reproduction Test)

Algae toxicity : ECr50 = 113 mg/l
Species : *Scenedesmus subspicatus*
Duration of exposure : 72 h
REACH Method C.3 (Algal Inhibition test)

ACIDE ASPARTIQUE, N,N'-[METHYLENEBIS(2-MRTHYL-4, 1-CYCLOHEXANEDIYL)BIS-, 1,1',4,4' -TETRATHYL ESTHER. (CAS: 136210-32-7)

Fish toxicity : LC50 = 66 mg/l
Species : *Danio rerio*
Duration of exposure : 96 h
OECD Guideline 203 (Fish, Acute Toxicity Test)

Crustacean toxicity : EC50 = 88.6 mg/l
Species : *Daphnia magna*
Duration of exposure : 48 h
Other guideline

NOEC = 0.01 mg/l
Species : *Daphnia magna*
Duration of exposure : 21 days
REACH Method C.20 (Daphnia magna Reproduction Test)

Algae toxicity : ECr50 = 113 mg/l
Species : *Scenedesmus subspicatus*
Duration of exposure : 72 h
REACH Method C.3 (Algal Inhibition test)

HYDROCARBONS, C9, AROMATICS

Fish toxicity : LC50 = 9.2 mg/l
Species : *Oncorhynchus mykiss*
Duration of exposure : 96 h

Crustacean toxicity : EC50 = 3.2 mg/l
Species : *Daphnia magna*

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Duration of exposure : 48 h

Algae toxicity :

ECr50 = 1 mg/l

Species : Pseudokirchnerella subcapitata

Duration of exposure : 72 h

12.1.2. Mixtures

No aquatic toxicity data available for the mixture.

12.2. Persistence and degradability**12.2.1. Substances**

ACÉTATE DE 2-MÉTHOXY-1-MÉTHYLÉTHYLE. (CAS: 108-65-6)

Biodegradability :

no degradability data is available, the substance is considered as not degrading quickly.

HYDROCARBONS, C9, AROMATICS

Biodegradability :

no degradability data is available, the substance is considered as not degrading quickly.

ACIDE ASPARTIQUE, N,N'-(MÉTHYLENEDI-4,1-CYCLOHEXANEDIYL)BIS-, 1,1',4,4'-TETRAETHYL ESTER. (CAS: 136210-30-5)

Biodegradability :

Rapidly degradable.

ACIDE ASPARTIQUE, N,N'-[MÉTHYLENEBIS(2-MRTHYL-4, 1-CYCLOHEXANEDIYL)BIS-, 1,1',4,4' -TETRATHYL ESTHER. (CAS: 136210-32-7)

Biodegradability :

Non-rapidly degradable.

12.3. Bioaccumulative potential**12.3.1. Substances**

ACÉTATE DE 2-MÉTHOXY-1-MÉTHYLÉTHYLE. (CAS: 108-65-6)

Octanol/water partition coefficient :

log K_{ow} = 1.2

OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method)

ACIDE ASPARTIQUE, N,N'-(MÉTHYLENEDI-4,1-CYCLOHEXANEDIYL)BIS-, 1,1',4,4'-TETRAETHYL ESTER. (CAS: 136210-30-5)

Octanol/water partition coefficient :

log K_{ow} = 5.16

ACIDE ASPARTIQUE, N,N'-[MÉTHYLENEBIS(2-MRTHYL-4, 1-CYCLOHEXANEDIYL)BIS-, 1,1',4,4' -TETRATHYL ESTHER. (CAS: 136210-32-7)

Octanol/water partition coefficient :

log K_{ow} = 5.99

Bioaccumulation :

BCF = 8.228

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

No data available.

12.6. Endocrine disrupting properties

The mixture does not contain any substance evaluated as an endocrine disruptor with environmental effects.

12.7. Other adverse effects

No data available.

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SECTION 13 : DISPOSAL CONSIDERATIONS

Proper waste management of the mixture and/or its container must be determined in accordance with Directive 2008/98/EC.

13.1. Waste treatment methods

Do not pour into drains or waterways.

Waste :

Waste management is carried out without endangering human health, without harming the environment and, in particular without risk to water, air, soil, plants or animals.

Recycle or dispose of waste in compliance with current legislation, via a certified collector or company.

Do not contaminate the ground or water with waste, do not dispose of waste into the environment.

Soiled packaging :

Empty container completely. Keep label(s) on container.

Give to a certified disposal contractor.

SECTION 14 : TRANSPORT INFORMATION

Exempt from transport classification and labelling.

14.1. UN number or ID number

-

14.2. UN proper shipping name

-

14.3. Transport hazard class(es)

-

14.4. Packing group

-

14.5. Environmental hazards

-

14.6. Special precautions for user

-

14.7. Maritime transport in bulk according to IMO instruments

-

SECTION 15 : REGULATORY INFORMATION

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

Classification and labelling information included in section 2:

The following regulations have been used:

- EU Regulation No. 1272/2008 amended by EU Regulation No. 2023/707.

- EU Regulation No. 1272/2008 amended by EU Regulation No. 2024/197. (ATP 21)

Container information:

No data available.

Restrictions applied under Title VIII of Regulation (EC) No. 1907/2006 (REACH):

The mixture does not contain any substance restricted under Annex XVII of Regulation (EC) No. 1907/2006 (REACH):
<https://echa.europa.eu/substances-restricted-under-reach>.

Explosives precursors :

The mixture does not contain any substance subject to Regulation (EU) 2019/1148 on the marketing and use of explosives precursors.

Particular provisions :

No data available.

15.2. Chemical safety assessment

No data available.

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Since the user's working conditions are not known by us, the information supplied on this safety data sheet is based on our current level of knowledge and on national and community regulations.

The mixture must not be used for other uses than those specified in section 1 without having first obtained written handling instructions.

It is at all times the responsibility of the user to take all necessary measures to comply with legal requirements and local regulations.

The information in this safety data sheet must be regarded as a description of the safety requirements relating to the mixture and not as a guarantee of the properties thereof.

Wording of the phrases mentioned in section 3 :

H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H317	May cause an allergic skin reaction.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Abbreviations and acronyms :

LD50 : The dose of a test substance resulting in 50% lethality in a given time period.

LC50 : The concentration of a test substance resulting in 50% lethality in a given period.

EC50 : The effective concentration of substance that causes 50% of the maximum response.

ECr50 : The effective concentration of substance that causes 50% reduction in growth rate.

NOEC : The concentration with no observed effect.

REACH : Registration, Evaluation, Authorization and Restriction of Chemical Substances.

ATE : Acute Toxicity Estimate

BW : Body Weight

DNEL : Derived No-Effect Level

PNEC : Predicted No-Effect Concentration

STEL : Short-term exposure limit

TWA : Time Weighted Averages

TMP : French Occupational Illness table

TLV : Threshold Limit Value (exposure)

AEV : Average Exposure Value.

VLRI : Indicative limit value

VLRC : Indicative constraint value

ADR : European agreement concerning the international carriage of dangerous goods by Road.

IMDG : International Maritime Dangerous Goods.

IATA : International Air Transport Association.

ICAO : International Civil Aviation Organisation

RID : Regulations concerning the International carriage of Dangerous goods by rail.

WGK : Wassergefährdungsklasse (Water Hazard Class).

GHS07 : Exclamation mark

PBT: Persistent, bioaccumulable and toxic.

vPvB : Very persistent, very bioaccumulable.

SVHC : Substances of very high concern.