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SAFETY DATA SHEET

1. IDENTIFICATION OF THE PRODUCT

NAME OF THE PRODUCT Activator primer

CODE 080056 – 30 ml
080061 – 250 ml

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Regulation nº1272/2008 (CLP)

H225 Flam. Liq 2	Flamable liquid, Category 2
H315 Skin Irrit. 2	Skin corrosión/Irritation, Category 2
H319 Eye Irrit. 2	Serious eye damage/ Eye irritation, Category 2.
H334 Resp. Sens.. 1	Respiratory sensibility, Category 1.
H317 Skin Sens. 1	Skin sensibilization, Category 1.
H351 Carc. 2	Carcinogenic, Category 2.
H335-H336 STOT SE 3	Specific Target Organ Toxicity - Single Exposure, Category 3

2.2 Label elements

Regulation nº1272/2008 (CLP)

Hazard pictograms

Danger

Components:

Component	NºCAS	CE No.	% weight
Butanone	78-93-3	201-159	40-60
2,4-Diisocyanate-1-methyl-benzene polymer with 1,6-Diisocyanatohexane	26426-91-5		5-10
Isocianato de polimetileno	9016-87-9		5-10
Reaction product of 4,4'-methylenediphenyl diisocyanate and 2,4'-diphenylmethane diisocyanate / MDI isomers		905-806-4	<10
4,4'-methylene-diphenyl diisocyanate	101-68-8	202-966-0	1-5

Oligomers of 1,6-hexymethylene diisocyanate	28182-81-2	500-060-2	<2,5
Hexamethylene di-isocyanate	822-06-0	212-485-8	<0,1
4-methyl-m-phenylene diisocyanate	584-84-9	209-544-5	<0,1

Hazard statements

H225	Highly flammable liquid and vapor.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H334	May cause allergy or asthma symptoms or shortness of breath from inhalation.
H317	May cause allergic skin reaction.
H351	Suspected of causing cancer.
H335	May cause drowsiness or dizziness.
H336	It can irritate the respiratory tract

Precautionary statements

Prevention:

P210	Keep away from heat, hot surfaces, sparks, open flames and all other sources of ignition. No Smoking.
P261A	Avoid breathing vapors.
P280E	Wear protective gloves.

Response:

P304-P340	IN CASE OF INHALATION: Remove person to fresh air and keep in a position that facilitates breathing.
P333+P313	In case of skin irritation or rash: Consult a doctor.
P342+P311	In case of respiratory symptoms: Call a POISON CENTER or doctor.

9% of the mixture consists of components of unknown acute oral toxicity.
12% of the mixture contains components whose acute inhalation toxicity is unknown.
Contains 17% of components with unknown hazards to the aquatic environment.

As of August 24, 2023, it is mandatory to have the appropriate information to proceed with an industrial or professional use.
Information required according to Regulation (EU) 2020/1149 regarding diisocyanates:

2.3 Other hazards:

People previously sensitized to isocyanates may develop a cross-reaction to other isocyanates.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance
Non-applicable.

3.2. Mixture:

Components		
CAS: 78-93-3 EC: 201-159-0 REACH: 01-2119457290-43	Butanone  Flam. Liq. 2, H225;  Eye Irrit. 2, H319; STOT SE 3, H336 EUH066	40-60%
CAS: 123-86-4 EC: 204-658-1 REACH : 01-2119485493-29	N-butyl acetate  Flam. Liq. 3, H226;  STOT SE 3, H336 EUH066	5-15%
CAS: 26426-91-5	2,4-Diisocyanate-1-methyl-benzene polymer with 1,6-Diisocyanatohexane  Skin Sens. 1, H317	5-10%
CAS: 9016-87-9	Polyphenylene polymethylene isocyanate  Resp. Sens. 1, H334; Carc. 2, H351; STOT RE 2, H373;  Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335	5-10%
EC: 905-806-4	Reaction product of 4,4'-methylenediphenyl diisocyanate and 2,4'-diphenylmethane diisocyanate / MDI isomers  Resp. Sens. 1, H334; Carc. 2, H351; STOT RE 2, H373;  Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens.1, H317; STOT SE 3, H335	<10%
CAS: 1333-86-4 EC: 215-609-9 REACH: 01-2119384822-32	Lampblack Substance with national occupational exposure limit	2-5%
CAS: 28182-81-2 EC: 202-966-0 REACH: 01-2119457014-47	4,4'-methylene-diphenyl diisocyanate  Resp. Sens. 1, H334; Carc. 2, H351; STOT RE 2, H373;  Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335	1-5%

CAS: 2530-83-8 EC: 219-784-2 REACH: 01-2119513212-58	[3 (2,3-epoxypropoxy) propyl] trimethoxysilane  Eye Damage 1, H318	< 2,5%
CAS: 28182-81-2 EC: 500-060-2	1,6-hexamethylene diisocyanate oligomers Acute Tox. 4, H332; Skin Sens. 1, H317; H335	<2,5%
CAS: 108-65-6 EC: 203-603-9 REACH: 01-2119475791-29	2-methoxy-1-methylethyl acetate  Flam. Liq. 3, H226 ; STOT SE 3, H336	< 2%
CAS: 822-06-0 EC: 212-485-8 REACH: 01-2119457571-37	Hexamethylene di-isocyanate  Acute Tox. 1, H330; Acute Tox. 4: 302;  Resp. Sens. 1, H334  Eye damage 1, H318  Skin Sens 1, H317; STOT SE 3, H335 ; Skin Corr. 1C H314;	<0,1%
CAS: 584-84-9 EC: 209-544-5 REACH : 01-2119486974-18	4-methyl-m-phenylene diisocyanate Acute Tox. 1, H330;  Resp. Sens. 1, H334; Carc. 2, H351  Aquatic Acute 3, H412;  Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335	< 0,1%

Please see section 16 for the full text of the H phrases mentioned in this section.

Specific concentration limit

Components		
CAS: 2530-83-8 EC: 219-784-2 REACH: 01-2119513212-58	[3 (2,3-epoxypropoxy) propyl] trimethoxysilane  Eye damage 1, H318	C>=5%
CAS: 822-06-0 EC: 212-485-8 REACH: 01-2119457571-37	Hexamethylene di-isocyanate  Acute Tox. 1, H330; Acute Tox. 4: 302;  Resp. Sens. 1, H334  Eye Damage 1, H318  Skin Sens. 1, H317; STOT SE 3, H335; Skin Corr. 1C H314;	C>=0,5%

CAS: 28182-81-2 EC: 202-966-0 REACH: 01-2119457014-47	4,4'-methylene-diphenyl diisocyanate Resp. Sens. 1, H334; Carc. 2, H351; STOT RE 2, H373; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335	C>=5% H315 C>=5% H319 C>=0,1% H334 C>=5% H335
CAS: 9016-87-9	Polyphenylene polymethylene isocyanate Resp. Sens. 1, H334; Carc. 2, H351; STOT RE 2, H373; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335	C>=5% H315 C>=5% H319 C>=0,1% H334 C>=5% H335
CAS: 584-84-9 EC: 209-544-5 REACH : 01-2119486974-18	4-methyl-m-phenylene diisocyanate Acute Tox. 1, H330; Resp. Sens. 1, H334; Carc. 2, H351 Aquatic Acute 3, H412; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335	C>=0,1%

For information on environmental exposure limits of ingredients or PTB or vPvB status, see sections 8 and 12.

4. FIRST AID MEASURES

4.1 Description of first aid measures

By inhalation
Transport the victim outside. Consult a doctor in case of discomfort.

By skin contact
Wash with water and soap abundantly. Take off contaminated clothing and wash before reuse.

By eye contact
Wash with water and soap abundantly. Remove contact lenses, if present and easy. Keep clarifying. Consult a doctor.

By ingestion
Rinse your mouth. Consult a doctor in case of discomfort.

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

The most important symptoms and effects based on the CLP classification include:
Irritating to the respiratory tract (coughing, sneezing, runny nose, snoring headache, and sore nose and throat).
Allergic respiratory reaction (difficulty breathing, sneezing, coughing and tightness in the chest).
Skin irritation (localized redness, swelling, itching and dryness).
Allergic skin reaction (redness, swelling, blisters and itching).
Severe eye irritation (significant redness, swelling, pain, tearing, and vision problems).

Central nervous system depression (headache, dizziness, drowsiness, lack of coordination, nausea, slurred speech, dizziness, and loss of consciousness).

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

5. FIREFIGHTING MEASURES

5.1. Extinguishing media
In case of fire: Use an extinguisher suitable for flammable liquids such as chemical powder or carbon dioxide for extinction.

5.2. Special hazards arising from the substance or mixture
Closed containers exposed to heat from fire can build pressure and explode.

Hazardous Decomposition or by Products

Substance	Conditions
Isocyanates	During combustion
Carbon monoxide (CO)	During combustion
Hydrogen cyanide	During combustion
Nitrogen oxides	During combustion

5.3. Advice for firefighters
Water may not put out the fire effectively; however, it should be used to keep surfaces cool, keep fire-exposed containers cool, and prevent explosive breakage. Wear full protective suit, including helmet, positive pressure or demand self-contained breathing apparatus, jacket and pants, bands around the arms, waist and legs, face mask and protection that covers the exposed part of the head.

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures
Evacuate the area. Keep away from heat / sparks / open flames / hot surfaces - No smoking. Do not use tools that produce sparks. Ventilate the area with fresh air. In case of large spills, or spills in confined spaces, provide mechanical ventilation to disperse vapors, in accordance with good industrial hygiene practice.
Warning! An engine could be a source of ignition, causing flammable gases or vapors in the spill area to burn or explode. Consult other sections of this safety data sheet for more information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

6.2. Environmental precautions
To avoid it's releasing into the environment. For large spills, cover the liquid and build dikes to prevent entry into the sewer system.

6.3. Methods and material for containment and cleaning up
Contain spill. Cover spill area with fire fighting foam. Put isocyanate decontaminating solution (90% water, 8% concentrated ammonia, 2% detergent) on the spill and allow to react for 10 minutes. Or put water on the spill and let it react for more than 30 minutes. Cover with absorbent material. Work from the edge of the spill inward, cover with bentonite, vermiculite, or any other commercially available inorganic absorbent material. Mix with absorbent until it appears dry. Remember, adding an absorbent material does not eliminate the physical, health or environmental hazard. Pick up any amount of spilled material, using a non-sparking utensil. Place in a container suitable for transport but do not seal for 48 hours to avoid overpressure.
Clean the residue with a suitable solvent, selected by qualified and authorized personnel. Ventilate the area with fresh air. Read and follow the precautions on the solvent label and its

SDS. Dispose of collected material as soon as possible in accordance with applicable local/ regional/ national/ international legislation.

6.4. Reference to other sections
For more information see section 8 and section 13.

7. HANDLING AND STORAGE

7.1. Precautions for safe handling
Do not handle the substance before having read and understood all the safety instructions. Keep away from heat / sparks / open flames / hot surfaces - No smoking. Do not use tools that produce sparks. Take precautionary measures against electrostatic discharge. Do not breathe dust / fume / gas / mist / vapors / spray. Avoid contact with eyes, skin, or clothing. Do not eat, drink, or smoke during use. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. To avoid it's releasing into the environment. Wash contaminated clothing before reuse. Avoid contact with oxidizing agents (eg Chloride, chromic acid, etc.). Wear suitable antistatic clothing and footwear to avoid electrostatic charges. Use the mandatory personal protective equipment (eg gloves, respiratory protection, etc.). To minimize the risk of ignition, determine the electrical classifications applicable to the process of using this product and select specific equipment with vents to avoid the accumulation of flammable vapors. Ground / equipotential bonding of vessel and receiving equipment if there is a possibility of static electricity build-up during transfer.

7.2. Conditions for safe storage, including any incompatibilities
Store in a well ventilated place. Keep in a cool and dry place. Keep container tightly closed. Store away from acids. Store away from oxidizing agents.

7.3. Specific end use(s)
Ver la información en las secciones 7.1 y 7.2 para recomendaciones para la manipulación y almacenamiento. Ver sección 8 para recomendaciones de controles de exposición/protección personal.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters
Environmental exposure limits
If a component is listed in section 3 but is not in the table below, there is no occupational exposure limit available for the component.

101-68-8 4,4'-methylenediphenyl diisocyanate	
VLA	Long-lasting value: 0.052 mg/m³, 0.005 ppm Sensibilizante
108-65-6 2-methoxy-1-methylethyl acetate	
VLA	Short-term value: 550 mg/m³, 100 ppm Long-lasting value: 275 mg/m³, 50 ppm
123-86-4 N-butyl acetate	
VLA	Short-term value: 965 mg/m³, 200 ppm Long-lasting value: 724 mg/m³, 150 ppm
1333-86-4 Lampblack	
VLA	Valor de larga duración: 3,5 mg/m³
584-84-9 4-methyl-m-phenylene diisocyanate	
VLA	Short-term value: 0,14 mg/m³, 0.02 ppm Long-lasting value: 0,036 mg/m³, 0.005 ppm Sensibilizante

78-93-3 Butanone	
VLA	Short-term value: 900 mg/m³, 300 ppm Long-lasting value: 600 mg/m³, 200 ppm
822-06-0 Hexamethylene di-isocyanate	
VLA	Long-lasting value: 0.035 mg/m³, 0.005 ppm Sensibilizante

Biological limit values

Component	CAS	INSHT	Determinant	Biological sample	Sampling time	Value
Butanone	78-93-3	VLB	Metiletilcetona	Orina	EOS	2 mg/L

VLB: Biological limit values, Occupational exposure limits for chemical agents, Table 5.
EOS: End of shift.

Follow-up best practices
Consult the follow-up procedures recommended by the National Institute for Occupational Safety and Hygiene (INSHT).

8.2 Exposure controls
Engineering controls
Use general dilution and / or local exhaust ventilation to control exposure to airborne contaminants below exposure limits and to control dust / fume / mist / vapors / aerosol. If ventilation is not adequate use respiratory protection. Use explosion-proof ventilation equipment.

Individual Protection Equipment

Mandatory face protection
Select and wear protection to prevent eye / face contact based on the results of an exposure assessment. The following eye / face protections are recommended:
Ventilated goggles
Applicable standards
Wear eye protection according to EN 166

Mandatory hand protection
Choose and use gloves and / or protective clothing approved by relevant local regulations to avoid skin contact based on the results of an exposure assessment. Selection should be based on usage factors, such as exposure levels, concentration of the substance or mixture, frequency and duration; physical conditions, such as extreme temperatures and other conditions of use. Consult with your manufacturer for the selection of suitable matching gloves / protective clothing.
Gloves made from the following materials are recommended:

Material	**Thikness (mm)**	**Penetration time**
Butyl rubber	0.5	≥8 horas

The data presented on gloves are based on the substance leading to skin toxicity and the conditions present at the time of the test. Breakthrough time can be altered when the glove is subjected to wear conditions that put additional stress on the glove.
Applicable standards

Wear gloves tested according to EN 374
If the product is used in a way that presents a high potential for exposure (eg spraying, high risk of splashing, etc.) the use of protective suits may be

necessary. Select and wear body protection to avoid contact, based on the results of the exposure assessment. The following material is recommended for protective clothing: Apron - Butyl rubber.

Respiratory protection
An exposure study may be necessary to decide if respiratory protection is required, use protection as part of a respiratory protection program. Based on the results of the exposure study, select from one of the following types of protection to reduce inhalation exposure: Air-purifying half-mask or full-facepiece respirator suitable for organic vapors and particulates.
For questions about whether a product is appropriate for a specific application, consult your respiratory protection provider.
Applicable standards
Use respiratory protection equipment that meets the specifications of the EN 140 or EN 136 standards: type A and P filters.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on Basic physical and chemical properties

Physical state	Liquid
Appearance	Fluid
Colour	Black
Odour	Characteristic of solvents
Melting point / freezing point	No data available
Boiling point / range	79°C
Inflammability (solid, gas)	Non applicable
Flammable limits (LEL)	1,8% volum
Flammable limits (UEL)	11,5% volum
Flashpoint	-8°C
Autoignition temperature	>=200°C
Decomposition temperature	No data available
pH	Non-soluble mixed substance (in water)
Kinematic viscosity	52,6 mm²/sg
Water solubility	Inmiscible
Not water solubility	No data available
Partition coefficient: n-octanol / water	No data available
Vapor pressure	10,5 kPa
Density6	No data available
Relative density	0,95
Relative vapor density	No data available

9.2. Other security features

Volatile Organic Compounds (UE)	No data available
Evaporation range	No data available

10. STABILITY AND REACTIVITY

10.1 Reactivity
This material can be reactive with certain agents under certain conditions - see the following headings in this section.

10.2 Chemical stability
Stable.

10.3 Possibility of hazardous reactions
Hazardous polymerization will not occur.

10.4 Conditions to avoid
Undetermined.

10.5. Incompatible materials
Strong oxidizing agents.

10.6. Hazardous decomposition products
Substance **Conditions**
None known

See section 5.2 for hazardous decomposition products during combustion.

11. TOXICOLOGICAL INFORMATION

The information below may not be in accordance with the EU material classification of section 2 and / or the ingredient classifications of section 3 when the classifications of the specific ingredients are mandatory as indicated by the competent authorities. Additionally, the information and data presented in section 11 are based on the calculation rules and classifications of the UN GHS System obtained from internal risk assessments.

11.1 Information on toxicological effects
Regulation (CE) n 1272/2008:

Symptoms of exposure
Based on test data and / or component information, this material produces the following effects.

Inhalation
May be harmful if inhaled. Respiratory tract irritation: Symptoms may include coughing, sneezing, runny nose, headache, hoarseness, and sore throat and nose. Allergic Respiratory Reaction: Signs/ symptoms may include shortness of breath, wheezing, coughing, and chest tightness. May cause additional health effects (see below).

Skin contact
Skin irritation: Symptoms may include localized redness, swelling, itching, dryness, cracking and blistering, and pain. Allergic skin reaction: Signs / symptoms may include redness, swelling, blisters and itching.

Eye contact
Severe eye irritation: Signs / symptoms may include redness, swelling, pain, tearing, cloudy appearance of the cornea, and vision difficulties.

Ingestion
Gastrointestinal irritation: Signs / symptoms may include abdominal and stomach pain, nausea, vomiting, and diarrhea. May cause additional health effects (see below).

Additional health effects
Single exposure may cause target organs
Central nervous system depression: Symptoms may include headache, vertigo, drowsiness, incoordination, nausea, increased reaction time, speech difficulties, and unconsciousness.

Respiratory Effects: Symptoms may include cough, shortness of breath, increased heart rate, bluish skin (cyanosis), sputum production, changes in lung function tests and / or respiratory failure.

Prolonged or repeated exposure may cause target organ effects
Respiratory Effects: Symptoms may include cough, shortness of breath, increased heart rate, bluish skin (cyanosis), sputum production, changes in lung function tests and / or respiratory failure.

Carcinogenicity
It contains one or more chemicals that can cause cancer.

Additional Information
People previously sensitized to isocyanates may develop a cross-sensitization reaction to other isocyanates.

Toxicological data
If a component is mentioned in section 3 but does not appear in the table below, either there is no data available or the data is not sufficient for classification.

Acute toxicity

Identification		
Complet product	DL50 dermal	No data available; calculated ATE>5000 mg/Kg
	CL50 inhalation	No data available; calculated ATE20>50 mg/L
	DL50 oral	No data available; calculated ATE>5000 mg/Kg
Butanone CAS: 78-93-3 EC: 201-159-0 REACH: 01-2119457290-43	DL50 dermal	>8050 mg/Kg (rabbit)
	CL50 inhalation	34,5 mg/L. (rat)
	DL50 oral	2737 mg/Kg (rat)
N-butyl acetate CAS: 123-86-4 EC: 204-658-1 REACH: 01-2119485493-29	DL50 dermal	>5000 mg/Kg (rabbit)
	CL50 inhalation	1,4 mg/L (rat)
	DL50 oral	>20 mg/L (rat)
Polyphenylene polymethylene isocyanate CAS: 9016-87-9	DL50 dermal	>5000 mg/Kg (rabbit)
	CL50 inhalation	0,368 mg/L (rat)
	DL50 oral	31600 mg/Kg (rat)
Reaction product of 4,4'-methylenediphenyl diisocyanate and 2,4'-diphenylmethane diisocyanate / MDI isomers EC: 905-806-4	DL50 dermal	5000 mg/Kg (rabbit)
	CL50 inhalation	0,368 mg/L (rat)
	DL50 oral	31600 mg/Kg (rat)
Lampblack CAS: 1333-86-4 EC: 215-609-9 REACH: 01-2119384822-32	DL50 dermal	>3000 mg/kg (rabbit)
	DL50 oral	>8000 mg/kg (rat)

4,4'-methylene-diphenyl diisocyanate CAS: 28182-81-2 EC: 202-966-0 REACH: 01-2119457014-47	DL50 dermal	>5000 mg/Kg (rabbit)
	CL50 inhalation	>0,368 mg/L (rat)
	DL50 oral	>31600 mg/kg (rat)
[3 (2,3-epoxypropoxy) propyl] trimethoxysilane CAS: 2530-83-8 EC: 219-784-2 REACH: 01-2119513212-58	DL50 dermal	4000 mg/Kg. (rabbit)
	CL50 inhalation	>5,3 mg/L (rat)
	DL50 oral	>7010 mg/Kg (rat)
1,6-hexamethylene diisocyanate oligomers CAS: 28182-81-2 EC: 500-060-2	DL50 dermal	It is estimated that 1-5 mg/L (professional judgment)
	CL50 inhalation	>5000 mg/Kg (rabbit)
	DL50 oral	>5000 mg/Kg (rat)
2-methoxy-1-methylethyl acetate CAS: 108-65-6 EC: 203-603-9 REACH: 01-2119475791-29	DL50 dermal	>5000 mg/Kg (rabbit)
	CL50 inhalation	>28,8 mg/L (rat)
	DL50 oral	8532 mg/Kg (rat)
Hexamethylene di-isocyanate CAS: 822-06-0 EC: 212-485-8 REACH: 01-2119457571-37	DL50 dermal	>7000 mg/Kg (rat)
	CL50 inhalation	0,124 mg/L (rat)
	DL50 oral	710 mg/Kg (rat)
4-methyl-m-phenylene diisocyanate CAS: 584-84-9 EC: 209-544-5 REACH: 01-2119486974-18	DL50 dermal	>9400 mg/Kg (rabbit)
	CL50 inhalation	0,12 mg/L (rat) 0,35 mg/L (rat)
	DL50 oral	>5000 mg/kg (rat)

ATE= estimated acute toxicity

Skin corrosion or irritation

Name	Species	Value
Butanone	Rabbit	Minimal irritation
N-butyl acetate	Rabbit	Minimal irritation
Polyphenylene polymethylene isocyanate	Official classification	Irritating
Reaction product of 4,4'-methylenediphenyl diisocyanate and 2,4'-diphenylmethane diisocyanate / MDI isomers	Official classification	Irritating
Lampblack	Rabbit	No significant irritation
4,4'-methylene-diphenyl diisocyanate	Official classification	Irritating
[3 (2,3-epoxypropoxy) propyl] trimethoxysilane	Rabbit	Mild irritant
1,6-hexamethylene diisocyanate oligomers	Rabbit	Minimal irritation
2-Methoxy-methylethyl acetate	Rabbit	No significant irritation
Hexamethylene di-isocyanate	Rabbit	Corrosive
4-methyl-m-femylene diisocyanate	Rabbit	Irritating

Serious eye damage or eye irritation

Name	Species	Value
Butanone	Rabbit	Severe irritant
N-butyl acetate	Rabbit	Moderate irritant

Polyphenylene polymethylene isocyanate	Official classification	Severe irritant
Reaction product of 4,4'-methylenediphenyl diisocyanate and 2,4'-diphenylmethane diisocyanate / MDI isomers	Official classification	Severe irritant
Polymer of 2,4'-4,4'-methylenediphenyl diisocyanate and 2,4'-diphenylmethane diisocyanate / MDI isomers	Rabbit	Severe irritant
Lampblack	Rabbit	No significant irritation
4,4'-methylene-diphenyl diisocyanate	Official classification	Severe irritant
[3 (2,3-epoxypropoxy) propyl] trimethoxysilane	Rabbit	Corrosive
1,6-hexamethylene diisocyanate oligomers	Rabbit	Mild irritant
2-Methoxy-methylethyl acetate	Rabbit	Mild irritant
Hexamethylene di-isocyanate	Rabbit	Corrosive
4-methyl-m-femylene diisocyanate	Rabbit	Corrosive

Skin sensitization

Name	Species	Value
N-butyl acetate	Various animal species	No classified
Polyphenylene polymethylene isocyanate	Official classification	Sensitization
Reaction product of 4,4'-methylenediphenyl diisocyanate and 2,4'-diphenylmethane diisocyanate / MDI isomers	Official classification	Sensitization
Polymer of 2,4-diisocyanate-1-methyl-benzene with 1,6-Diisocyanatohexane	Guinea pig	Sensitization
4,4'-methylene-diphenyl diisocyanate	Official classification	Sensitization
[3 (2,3-epoxypropoxy) propyl] trimethoxysilane	Guinea pig	Corrosive
1,6-hexamethylene diisocyanate oligomers	Guinea pig	Sensitization
2-Methoxy-methylethyl acetate	Guinea pig	No classified
Hexamethylene di-isocyanate	Various animal species	Sensitization
4-methyl-m-femylene diisocyanate	Humans and animals	Sensitization

Respiratory sensitization

Name	Species	Value
Polyphenylene polymethylene isocyanate	Human	Sensitization
Reaction product of 4,4'-methylenediphenyl diisocyanate and 2,4'-diphenylmethane diisocyanate / MDI isomers	Human	Sensitization
4,4'-methylene-diphenyl diisocyanate	Human	Sensitization
1,6-hexamethylene diisocyanate oligomers	Similar compounds	No classified
Hexamethylene di-isocyanate	Human and animals	Sensitization
4-methyl-m-femylene diisocyanate	Humano	Sensitization

Germ cell mutagenicity

Name	Rute	Value
Butanone	In vitro	Not mutagenic
N-butyl acetate	In vitro	Not mutagenic
Polyphenylene polymethylene isocyanate	In vitro	There is some positive data, but it is not sufficient for classification
Reaction product of 4,4'-methylenediphenyl diisocyanate and 2,4'-diphenylmethane diisocyanate / MDI isomers	In vitro	There is some positive data, but it is not sufficient for classification
Lampblack	In vitro	Not mutagenic
Lampblack	In vivo	There is some positive data, but it is not sufficient for classification
4,4'-methylene-diphenyl diisocyanate	In vitro	There is some positive data, but it is not sufficient for classification
[3 (2,3-epoxypropoxy) propyl] trimethoxysilane	In vivo	Not mutagenic
[3 (2,3-epoxypropoxy) propyl] trimethoxysilane	In vitro	There is some positive data, but it is not sufficient for classification
1,6-hexamethylene diisocyanate oligomers	In vitro	Not mutagenic
1,6-hexamethylene diisocyanate oligomers	In vivo	Not mutagenic
2-Methoxy-methylethyl acetate	In vitro	Not mutagenic
Hexamethylene di-isocyanate	In vitro	Not mutagenic
Hexamethylene di-isocyanate	In vivo	Not mutagenic
4-methyl-m-femylene diisocyanate	In vitro	There is some positive data, but it is not sufficient for classification

Carcinogenicity

Name	Rute	Species	Value
Butanone	Inhalation	Human	Not carcinogenic
Polyphenylene polymethylene isocyanate	Inhalation	Rat	There is some positive data, but it is not sufficient for classification
Reaction product of 4,4'-methylenediphenyl diisocyanate and 2,4'-diphenylmethane diisocyanate / MDI isomers	Inhalation	Rat	There is some positive data, but it is not sufficient for classification
Lampblack	Dermal	Mouse	Not carcinogenic
Lampblack	Ingestion	Mouse	Not carcinogenic
Lampblack	Inhalation	Rat	Carcinogen
4,4'-methylene-diphenyl diisocyanate	Inhalation	Rat	There is some positive data, but it is not sufficient for classification
[3 (2,3-epoxypropoxy) propyl] trimethoxysilane	Dérmico	Mouse	Not carcinogenic
Hexamethylene di-isocyanate	Inhalation	Rat	Not carcinogenic
4-methyl-m-femylene diisocyanate	Inhalation	Human and animals	Not carcinogenic
4-methyl-m-femylene diisocyanate	Ingestion	Various animal species	Carcinogenic

Reproductive toxicity
Effects on reproduction and / or development

Name	Rute	Value	Species	Test result	Exposure duration
Butanone	Inhalation	Not classified for development	Rat	LOAEL 8,8 mg/L	During pregnancy
N-butyl acetate	Inhalation	Not classified for female reproduction	Rat	NOAEL 7,1 mg/L	Preparation and during pregnancy
N-butyl acetate	Inhalation	Not classified for development	Rat	NOAEL 7,1 mg/L	Preparation and during pregnancy
Polyphenylene polymethylene isocyanate	Inhalation	Not classified for development	Rat	NOAEL 0,004 mg/L	During organogenesis
Reaction product of 4,4'-methylenediphenyl diisocyanate and 2,4'-diphenylmethane diisocyanate / MDI isomers	Inhalation	Not classified for development	Rat	NOAEL 0,004 mg/L	During organogenesis
4,4'-methylene-diphenyl diisocyanate	Inhalation	Not classified for development	Rat	NOAEL 0,004 mg/L	During organogenesis
[3 (2,3-epoxypropoxy) propyl] trimethoxysilane	Inhalation	Not classified for female reproduction	Rat	NOAEL 1000 mg/Kg/day	1 generation
[[3 (2,3-epoxypropoxy) propyl] trimethoxysilane	Inhalation	Not classified for male reproduction	Rat	NOAEL 1000 mg/Kg/day	1 generation
[3 (2,3-epoxypropoxy) propyl] trimethoxysilane	Inhalation	Not classified for development	Rat	NOAEL 3000 mg/Kg/day	During organogenesis
2-Methoxy-methylethyl acetate	Inhalation	Not classified for female reproduction	Rat	NOAEL 1000 mg/Kg/day	Preparation and during pregnancy
2-Methoxy-methylethyl acetate	Inhalation	Not classified for male reproduction	Rat	NOAEL 1000 mg/Kg/day	Preparation and during pregnancy
2-Methoxy-methylethyl acetate	Inhalation	Not classified for development	Rat	NOAEL 1000 mg/Kg/day	Preparation and during pregnancy
2-Methoxy-methylethyl acetate	Inhalation	Not classified for development	Rat	NOAEL 21,6 mg/L	During organogenesis
Hexamethylene di-isocyanate	Inhalation	Not classified for female reproduction	Rat	NOAEL 0,002 mg/L	7 weeks
Hexamethylene di-isocyanate	Inhalation	Not classified for development	Rat	NOAEL 0,002 mg/L	7 weeks
Hexamethylene di-isocyanate	Inhalation	Not classified for male reproduction	Rat	NOAEL 0,014 mg/L	4 weeks

4-methyl-m-femylene diisocyanate	Inhalation	Not classified for female reproduction	Rat	NOAEL 0,002 mg/L	2 generation
4-methyl-m-femylene diisocyanate	Inhalation	Not classified for male reproduction	Rat	NOAEL 0,002 mg/L	2 generation
4-methyl-m-femylene diisocyanate	Inhalation	Not classified for development	Rat	NOAEL 0,004 mg/L	During organogenesis

Specific organ (s)
Specific Target Organ Toxicity - Single Exposure

Name	Rute	Specific organ(s)	Value	Species	Test result	Exposure duration
Butanone	Inhalation	nervous system depression central.	May cause drowsiness or dizziness.	Official clasificación	NOAEL Not available	
Butanone	Inhalation	Irritation of the respiratory system	There is some positive data, but it is not sufficient for classification	Human	NOAEL Not available	
Butanone	Ingestión:	nervous system depression central.	May cause drowsiness or dizziness.	Professional criteria	NOAEL Not available	
Butanone	Ingestión:	liver	Not classified	Rat	NOAEL Not available	Not applicable
Butanone	Ingestión:	kidneys and / or gallbladder	Not classified	Rat	LOAEL 1.080 mg/kg	Not applicable
N-butyl acetate	Inhalation	respiratory system	May cause organ damage	Rat	LOAEL 2,6 mg/l	4 hours
N-butyl acetate	Inhalation	nervous system depression central.	May cause drowsiness or dizziness.	Human	NOAEL Not available	Not available
N-butyl acetate	Inhalation	Irritation of the respiratory system	May cause respiratory irritation	Human	NOAEL Not available	Not available
N-butyl acetate	Ingestión:	nervous system depression central.	May cause drowsiness or dizziness.	Professional criteria	NOAEL Not available	
Polyphenylene polymethylene isocyanate	Inhalation	Irritation of the respiratory system	May cause respiratory irritation	Official clasification.	NOAEL Not available	

Reaction product of 4,4'-methylenediphenyl diisocyanate and 2,4'-diphenylmethane diisocyanate / isomers of MDI	Inhalation	Irritation of the respiratory system	May cause respiratory irritation	Official clasification.	NOAEL Not available	
4,4'-methylene diphenyl diisocyanate	Inhalation	Irritation of the respiratory system	May cause respiratory irritation	Official clasificación..	NOAEL Not available	
1,6-diisocyanate oligomers hexamethylene	Inhalation	Irritation of the respiratory system	May cause respiratory irritation		NOAEL Not available	
2-methoxy-1-methylethyl acetate	Inhalation	Irritation of the respiratory system	There are some positive data, but they are not sufficient for the classification		NOAEL Not available	
Hexamethylene di-isocyanate	Inhalation	Irritation of the respiratory system	May cause respiratory irritation	Humans and animals	NOAEL Not available	
Hexamethylene di-isocyanate	Inhalation	Blood	Not classified	Human	NOAEL Not available	occupational exposure
4-methyl-m-phenylene diisocyanate	Inhalation	Irritation of the respiratory system	May cause respiratory irritation	Human	NOAEL Not available	occupational exposure

Specific Target Organ Toxicity - Repeated Exposures

Name	Rute	Specific organ (s)	Value	Species	Test result	Exposure duration
Butanone	Dermal	Nervous system	Not classified	Guinea ìg	NOAEL Not available	31 weeks

Butanone	Inhalation	Liver | kidneys and / or gallbladder | heart | endocrine system | gastrointestinal tract | bones, teeth, nails, and / or hair | hematopoietic system | immune system | muscles	Not classified	Rat	NOAEL 14,7 mg/l	90 days
Butanone	Inhalation	Liver	Not classified	Rat	NOAEL Not available	7 days
Butanone	Inhalation	Nervous system	Not classified	Rat	NOAEL 173 mg/kg/day	90 days
N-butyl acetate	Inhalation	Olfactory system	Not classified	Rat	NOAEL 2,4 mg/l	14 weeks
N-butyl acetate	Inhalation	Liver / kidneys and / or gallbladder	Not classified	Rabbit	NOAEL 7,26 mg/l	13 days
Polymethylene isocyanate polifenileno	Inhalation	Respiratory system	Causes damage to organs through prolonged or repeated exposure	Rat	LOAEL 0,004 mg/l	13 weeks
Reaction product of 4,4'-methylenediphenyl diisocyanate and 2,4'-diphenylmethane diisocyanate / isomers by MDI	Inhalation	Respiratory system	Causes damage to organs through prolonged or repeated exposure	Rat	LOAEL 0,004 mg/l	13 weeks
Lampblack	Inhalation	Pneumoconiosis	Not classified	Human	NOAEL Not available	Occupational exposure
4,4'-methylene diphenyl diisocyanate	Inhalation	Respiratory system	Causes damage to organs through prolonged or repeated exposure	Rat	LOAEL 0,004 mg/l	13 weeks

[3- (2,3-epoxypropoxy) propyl] trimethyl oxysilane	Ingestion	Heart | endocrine system | bones, teeth, nails, and / or hair | hematopoietic system | liver | immune system | nervous system | kidneys and / or gallbladder | respiratory system	Not classified	Rat	NOAEL 1.000 mg/kg/day	28 days
1,6-hexamethylene diisocyanate oligomers	Inhalation	Immune system | blood	Not classified	Rat	NOAEL 0,084 mg/l	2 weeks
2-methoxy-1-methylethyl acetate	Inhalation	Kidneys and / or gallbladder	Not classified	Rat	NOAEL 16,2 mg/l	9 days
2-methoxy-1-methylethyl acetate	Inhalation	Olfactory system	Not classified	Mouse	LOAEL 1,62 mg/l	9 days
2-methoxy-1-methylethyl acetate	Inhalation	Blood	Not classified	Various animal species	NOAEL 16,2 mg/l	9 days
2-methoxy-1-methylethyl acetate	Ingestion	Endocrine system	Not classified	Rat	NOAEL 1.000 mg/kg/day	44 days
Hexamethylene di-isocyanate	Inhalation	liver | kidneys and / or gallbladder	Not classified	Rat	NOAEL 0,002 mg/l	3 weeks
Hexamethylene di-isocyanate	Inhalation	Endocrine system	Not classified	Rat	NOAEL 0,0014 mg/l	4 weeks
Hexamethylene di-isocyanate	Inhalation	Blood	Not classified	Rat	NOAEL 0,0012 mg/l	2 years
Hexamethylene di-isocyanate	Inhalation	Nervous system	Not classified	Rat	NOAEL 0,002 mg/l	7 weeks
Hexamethylene di-isocyanate	Inhalation	Heart	Not classified	Rat	NOAEL 0,001 mg/l	90 days
4-methyl-m-phenylene diisocyanate	Inhalation	Respiratory system	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL 0 mg/l	Occupational exposure

Aspiration hazard
For component / components either the data is not currently available or the data is not sufficient for classification.

Please contact the address or telephone number listed on the first page of the safety data sheet for additional toxicological information on this material and / or its components.

11.2. Information on other hazards

This material does not contain any substance that is considered an endocrine disruptor for human health.

12. ECOLOGICAL INFORMATION

The following information may not be in accordance with the EU material classification in Section 2 and / or the ingredient classifications in section 3 if the specific ingredient classifications are determined by the competent authority. In addition, the statements and data presented in Section 12 are based on UN GHS calculation rules and classifications derived from 3M evaluations.

12.1 Toxicity

No test data available for the product

Material	CAS #	Organism	Type	Exposition	Test end point	Test result
Butanone	78-93-3	Active sludge	Experimental	12 hours	IC50	1.873 mg/l
Butanone	78-93-3	Bacteria	Experimental	16 hours	NOEC	1.150 mg/l
Butanone	78-93-3	Fathead Minnow	Experimental	96 hours	LC50	2.993 mg/l
Butanone	78-93-3	Green algae	Experimental	96 hours	EC50	2.029 mg/l
Butanone	78-93-3	Water flea	Experimental	48 hours	EC50	308 mg/l
Butanone	78-93-3	Green Algae	Experimental	96 hours	EC10	1.289 mg/l
Butanone	78-93-3	Water flea	Experimental	21 days	NOEC	100 mg/l
N-butyl acetate	123-86-4	Anaerobic sludge	Experimental	24 hours	NOEC	1.200 mg/l
N-butyl acetate	123-86-4	Bacteria	Experimental	18 hours	EC50	959 mg/l
N-butyl acetate	123-86-4	Crustaceans	Experimental	48 hours	LC50	32 mg/l
N-butyl acetate	123-86-4	Fathead Minnow	Experimental	96 hours	LC50	18 mg/l
N-butyl acetate	123-86-4	Green algae	Experimental	72 hours	EC50	674,7 mg/l
N-butyl acetate	123-86-4	Water flea	Experimental	24 hours	EC50	72,8 mg/l
Polymer of 2,4-diisocyanate-1-methyl-benzene with 1,6-Diisocyanatohexane	26426-91-5		Data not available or insufficient for classification			N/A
Polymethylene isocyanate polyphenylene	9016-87-9	Water flea	Estimated	24 hours	EC50	>100 mg/l
Polymethylene isocyanate polyphenylene	9016-87-9	Active sludge	Experimental	3 hours	EC50	>100 mg/l

Reaction product of diisocyanate 4,4'-methylenediphenyl and 2,4'-diphenylmethane diisocyanate / MDI isomers	905-806-4	Active sludge	Estimated	3 hours	EC50	>100 mg/l
Reaction product of diisocyanate 4,4'-methylenediphenyl and 2,4'-diphenylmethane diisocyanate / MDI isomers	905-806-4	Green algae	Estimated	72 hours	EC50	>1.640 mg/l
Reaction product of diisocyanate 4,4'-methylenediphenyl and 2,4'-diphenylmethane diisocyanate / MDI isomers	905-806-4	Water flea	Estimated	24 hours	EC50	129,7 mg/l
Reaction product of diisocyanate 4,4'-methylenediphenyl and 2,4'-diphenylmethane diisocyanate / MDI isomers	905-806-4	Zebrafish	Estimated	96 hours	LC50	>1.000 mg/l
Reaction product of diisocyanate 4,4'-methylenediphenyl and 2,4'-diphenylmethane diisocyanate / MDI isomers	905-806-4	Green algae	Estimated		NOEL	1.640 mg/l

Reaction product of diisocyanate 4,4'-methylenediphenyl and 2,4'-diphenylmethane diisocyanate / MDI isomers	905-806-4	Water flea	Estimated	21 days	NOEC	10 mg/l
Lampblack	1333-86-4	Active sludge	Experimental	3 hours	EC50	>=100 mg/l
Lampblack	1333-86-4		Data not available or insufficient for classification			N/A
4,4'-methylene-diphenyl diisocyanate	101-68-8	Active sludge	Estimated	3 hours	EC50	>100 mg/l
4,4'-methylene-diphenyl diisocyanate	101-68-8	Green algae	Estimated	72 hours	EC50	>1.640 mg/l
4,4'-methylene diisocyanate-diphenyl	101-68-8	Water flea	Estimated	24 hours	EC50	>1.000 mg/l
4,4'-methylene diisocyanate-diphenyl	101-68-8	Zebrafish	Estimated	96 hours	LC50	>1.000 mg/l
4,4'-methylene diisocyanate-diphenyl	101-68-8	Green algae	Estimated	72 hours	NOEC	1.640 mg/l
4,4'-methylene diisocyanate-diphenyl	101-68-8	Water flea	Estimated	21 hours	NOEC	10 mg/l
[3- (2,3-epoxypropoxy) propyl] trimethoxysilane	2530-83-8	Bacteria	Experimental	5 hours	EC10	1.520 mg/l
[3- (2,3-epoxypropoxy) propyl] trimethoxysilane	2530-83-8	Carpa común	Experimental	96 hours	LC50	55 mg/l
[3- (2,3-epoxypropoxy) propyl] trimethoxysilane	2530-83-8	Other Crustaceans	Experimental	48 hours	LC50	324 mg/l
[3- (2,3-epoxypropoxy) propyl] trimethoxysilane	2530-83-8	Green algae	Experimental	96 hours	EC50	350 mg/l
[3- (2,3-epoxypropoxy) propyl] trimethoxysilane	2530-83-8	Green Algae	Experimental	96 hours	NOEC	130 mg/l

[3- (2,3-epoxypropoxy) propyl] trimethoxysilane	2530-83-8	Water flea	Experimental	21 days	NOEC	>=100 mg/l
1,6-hexamethylene diisocyanate oligomers	28182-81-2	Active sludge	Experimental	3 hours	EC50	3.828 mg/l
1,6-hexamethylene diisocyanate oligomers	28182-81-2	Green algae	Experimental	72 hours	EC50	>1.000 mg/l
1,6-hexamethylene diisocyanate oligomers	28182-81-2	Zebrafish	Experimental	96 hours	LL50	>100 mg/l
1,6-hexamethylene diisocyanate oligomers	28182-81-2	Green algae	Experimental	72 horas	EC10	370 mg/l
2-methoxy-1-methylethyl acetate	108-65-6	Active sludge	Experimental	30 minutes	EC10	>1.000 mg/l
2-methoxy-1-methylethyl acetate	108-65-6	Green algae	Experimental	72 hours	EC50	>1.000 mg/l
2-methoxy-1-methylethyl acetate	108-65-6	Rainbow trout	Experimental	96 hours	LC50	134 mg/l
2-methoxy-1-methylethyl acetate	108-65-6	Water flea	Experimental	48 hours	EC50	370 mg/l
2-methoxy-1-methylethyl acetate	108-65-6	Green algae	Experimental	72 hours	NOEC	1.000 mg/l
2-methoxy-1-methylethyl acetate	108-65-6	Water flea	Experimental	21 days	NOEC	100 mg/l
Hexamethylene di-isocyanate	822-06-0	Green Algae	Estimated	96 hours	EC50	14,8 mg/l
Hexamethylene di-isocyanate	822-06-0	Medaka	Estimated	96 hours	LC50	71 mg/l
Hexamethylene di-isocyanate	822-06-0	Water flea	Estimated	48 hours	EC50	27 mg/l
Hexamethylene di-isocyanate	822-06-0	Active sludge	Experimental	3 hours	EC50	842 mg/l
Hexamethylene di-isocyanate	822-06-0	Green Algae	Estimated	72 hours	NOEC	10 mg/l
Hexamethylene di-isocyanate	822-06-0	Water flea	Estimated	21 days	NOEC	4,2 mg/l

4-methyl-m-phenylene diisocyanate	584-84-9	Green algae	Estimated	96 hours	EC50	9,54 mg/l
4-methyl-m-phenylene diisocyanate	584-84-9	Water flea	Estimated	48 hours	EC50	1,6 mg/l
4-methyl-m-phenylene diisocyanate	584-84-9	Zebrafish	Estimated	96 hours	LC50	392 mg/l
4-methyl-m-phenylene diisocyanate	584-84-9	Crustaceans	Estimated	14 days	NOEC	0,8 mg/l
4-methyl-m-phenylene diisocyanate	584-84-9	Medaka	Estimated	28 days	NOEC	40,3 mg/l

12.2 Persistence and degradability

Material	Nº CAS	Kind of test	Duration	Kind of study	Test result	Protocol
Butanone	78-93-3	Experimental Biodegradation	28 days	Biological oxygen demand	98 % DBO/DBO theoretical	OECD 301D - Closed Bottle Test
N-butyl acetate	123-86-4	Experimental Biodegradation	28 days	Biological oxygen demand	98 % weight	OECD 301D - Closed Bottle Test
Polymer of 2,4-diisocyanate-1-methyl-benzene with 1,6-Diisocyanatohexane	26426-91-5	Data not available or insufficient			N/A	
Polyphenylene polymethylene isocyanate	9016-87-9	Experimental Hydrolysis		Hydrolytic half-life	<2 hours (t 1/2)	Non-standard method
Polymethylene isocyanate	9016-87-9	Estimated Biodegradation	28 days	Biological oxygen demand	0 % Weight	OECD 301C - MITI (I)

Reaction product of diisocyanate 4,4'-methylenediphenyl and 2,4'-diphenyl methane diisocyanate / MDI isomers	905-806-4	Data not available or insufficient			N/A	
Lampblack	1333-86-4	Data not available or insufficient			N/A	
4,4'-methylene-diphenyl diisocyanate	101-68-8	Estimated Hydrolysis		Hydrolytic average life	20 hours (t 1/2)	Non-standard method
[3- (2,3-epoxypropoxy) propyl] trimethoxysilane	2530-83-8	Experimental Hydrolysis		Hydrolytic average life	6.5 hours (t 1/2)	Non-standard method
[3- (2,3-epoxypropoxy) propyl] trimethoxysilane	2530-83-8	Experimental Biodegradation	28 days	Dissol. carbon depletion organic	37 % Weight	Non-standard method
1,6-oligomers hexamethylene diisocyanate	28182-81-2	Experimental Hydrolysis		Hydrolytic average life	7.7 hours (t 1/2)	Non-standard method
1,6-hexamethylene diisocyanate oligomers	28182-81-2	Experimental Biodegradation	28 days	Biological oxygen demand	1 % Weight	Non-standard method
2-methoxy-1-methylethyl acetate	108-65-6	Experimental Biodegradation	28 days	Biological oxygen demand	87.2 % DBO/DBO theoretical	OECD 301C - MITI (I)
Hexamethylene di-isocyanate	822-06-0	Experimental Hydrolysis		Hydrolytic average life	5 minutes (t 1/2)	Non-standard method
Hexamethylene di-isocyanate	822-06-0	Estimated Biodegradation	28 days	Biological oxygen demand	82 % DBO/DBO theoretical	OECD 301D - Closed Bottle Test

4-methyl-m-phenylene diisocyanate	584-84-9	Estimated Photolysis		Photolytic average life (in air)	4.27 days (t 1/2)	Non-standard method
4-methyl-m-phenylene diisocyanate	584-84-9	Experimental Hydrolysis		Hydrolytic average life	5 days (t 1/2)	Non-standard method
4-methyl-m-phenylene diisocyanate	584-84-9	Estimated Biodegradation	14 days	Biological oxygen demand	0 % Weight	OECD 301C - MITI (I)

12.3 Bioaccumulative potential

Material	Cas No.	Kind of test	Duration	Type of study	Test result	Protocol
Butanone	78-93-3	Experimental Bioconcentration		Log partition coefficient octanol / water	0.29	Non-standard method
N-butyl acetate	123-86-4	Experimental Bioconcentration		Log partition coefficient octanol / water	1.78	Non-standard method
Polymer of 2,4-diisocyanate-1-methyl-benzene with 1,6-Diisocyanatohexane	26426-91-5	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Polymethylene isocyanate polyphenylene	9016-87-9	Estimated BCF-Carp	28 days	Bioaccumulation factor	200	Non-standard method
Reaction product of diisocyanate 4,4'-methylenediphenyl and 2,4'-diphenyl methane diisocyanate / isomers de MDI	905-806-4	Experimental BCF-Carp	28 days	Bioaccumulation factor	200	OECD 305E-Bioaccum Fl-thru fis

Lampblack	1333-86-4	Data not available or insufficient for the classification	N/A	N/A	N/A	N/A
4,4'-methylene-diphenyl diisocyanate	101-68-8	Experimental BCF-Carp	28 days	Bioaccumulation factor	200	OECD 305E-Bioaccum Fl- thru fis
[3- (2,3-epoxypropoxy) propyl] trimethoxy silane	2530-83-8	Data not available or insufficient for the classification	N/A	N/A	N/A	N/A
1,6-hexamethylene diisocyanate oligomers	28182-81-2	Data not available or insufficient for the classification	N/A	N/A	N/A	N/A
2-methoxy-1-methylethyl acetate	108-65-6	Experimental Bioconcentration		Log partition coefficient octanol / water	0.36	Non-standard method
Hexamethylene di-isocyanate	822-06-0	Estimated Bioconcentration		Log partition coefficient octanol / water	0.02	Non-standard method
4-methyl-m-phenylene diisocyanate	584-84-9	Estimated BCF- Carp	42 days	Bioaccumulation factor	<50	OECD 305C-Bioaccum degree fish

12.4 Movility in soil

Material	Cas No.	Kind of test	Type of study	Test result	Protocol
Diisocianato de 4,4'-metilen-difenilo	101-68-8	Estimated Mobility in soil	Koc	34.000 l/kg	Episuite™
[3-(2,3-epoxipropoxi) propil]trimetoxisilano	2530-83-8	Estimated Mobility in soil	Koc	58 l/kg	Episuite™

12.5 Results of PBT and vPvB assessment

This material does not contain any substances identified as PBT or vPvB.

12.6 Endocrine disrupting properties
This material does not contain any substance that is considered an endocrine disruptor due to environmental effects.

12.7. Other adverse effects
No information available.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Dispose of the content and/ or container in accordance with applicable local/ regional/ national/ international legislation.

Incinerate in a licensed incinerator. As a disposal alternative, use an authorized waste treatment facility. Empty containers / drums / containers used for handling and transporting dangerous chemical substances (preparations / mixtures / chemical substances classified as dangerous by applicable regulations) must be classified, stored, treated and disposed of as hazardous waste unless so determined by applicable waste regulations. Consult with the respective competent authorities to determine the proper treatment and facilities for disposal.

The waste code is based on the application of the product by the customer. Since this is beyond the control of the manufacturer, no waste codes are given for products after use. Please refer to the European waste code catalog (EWC - 2000/532 / EC and subsequent amendments) to assign the correct waste code. Make sure that regional and / or national legislation is complied with and always use an authorized waste manager.

EU waste code (product as sold)

140603*	Other solvents or solvent mixture

14. TRANSPORT INFORMATION

14.3 Transport Hazard class(es) **Ground transportation** **ADR**  **Class** **Label**	 3 3
14.4 Packing group **ADR, IMDG, IATA**	 III
14.5 Environmental hazards	Not applicable
14.6 Special precautions for users **Kemler Number** **Tunnel restriction code** **ADR IATA,** **IMGR** **Stowage category**	 33 F-E-, S-E B

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code	Not applicable
Transport additional data **ADR** **Limited quantities (LQ)** **Excepted quantities (EQ) Code E2** **Maximum net quantity per inner container** **Maximum net quantity per outer packaging**	 5L 30ml 500ml

15. REGULATORY INFORMATION

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

Carcinogenicity

Component	Nº CAS	Classification	Reglament
Lampblack	1333-86-4	Grp. 2: Suspected of causing cancer	International Agency for Research on Cancer (IARC)
Diisocyanate 4,4'-methylene-diphenyl	101-68-8	Carcinogenicity, category 2	Reglament (EC) No. 1272/2008, Table 3.1
Diisocyanate 4,4'-methylene-diphenyl	101-68-8	Gr. 3: Not classificable	International Agency for Research on Cancer (IARC)
Polyphenylene polymethylene isocyanate	9016-87-9	Carcinogenicity, category 2	Classified by 3M according to Regulation (CE) Nº1272/2008
Polyphenylene polymethylene isocyanate	9016-87-9	Gr. 3: Not classificable	International Agency for Research on Cancer (IARC)
Reaction product of 4,4'-methylenediphenyl diisocyanate and 2,4'-diphenylmethane diisocyanate / MDI isomers	905-806-4	Carcinogenicity, category 2	Classified by 3M according to Regulation (CE) 1272/2008
4-methyl-m-phenylene diisocyanate	584-84-9	Carcinogenicity,	Reglament (EC) No. 1272/2008, Table 3.1
4-methyl-m-phenylene diisocyanate	584-84-9	Grp. 2: Suspected of causing cancer	International Agency for Research on Cancer (IARC)

Restrictions on manufacture, marketing and use
The following substance / s contained in this product is subject to the provisions of Annex XVII of the REACH Regulation on Restrictions on the manufacture, marketing and use of certain dangerous substances, preparations and articles. Users of this product must comply with the restrictions imposed by the provision mentioned above.

Component	**Nº CAS**
4,4'-methylene-diphenyl diisocyanate	101-68-8

Restriction status: Included in Annex XVII of the REACH Regulation
Restricted uses: See Annex XVII of Regulation EC 1907/2006 on conditions of restrictions.

Global inventory status
Contact the manufacturer for more information.

15.2 Chemical safety report
The chemical safety assessment of this mixture has not been carried out. The assessment of the chemical safety of the substances contained may have been carried out by their registrants in accordance with the obligations established by Regulation (EC) No 1907/2006 and its amendments.

16. OTHER INFORMATION

16.1 List of relevant H phrases

EUH066	Repeated exposure may cause skin dryness or cracking.
H225	Highly flammable liquid and vapor.
H226	Flammable liquid and vapor.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May produce an alergic reaction on the skin.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	It can irritate the respiratory tract.
H336	May cause drowsiness or dizziness.
H351	It is suspected of causing cancer.
H373	May cause damage to organs through prolonged or repeated exposure.
H412	Harmful to aquatic life with long lasting effects.

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Revised information

No review information