


CRH 44 CATALIZADOR UHS MEDIO MEDIUM UHS HARDENER
Solvent based Hardeners

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

- 1.1 Product identifier:** CRH 44 CATALIZADOR UHS MEDIO MEDIUM UHS HARDENER
Solvent based Hardeners
- 1.2 Relevant identified uses of the substance or mixture and uses advised against:**
Relevant uses: Hardener for coatings. For industrial user only.
Uses advised against: All uses not specified in this section or in section 7.3
- 1.3 Details of the supplier of the safety data sheet:**
CROMAUTO COATINGS, S.L.U.
P.I. Can Boada Vell - C/ Santa Margarida de Boada Vell nº 7 y 9 Nave 3
08184 Palau Solita i Plegamans - Barcelona - España
Phone.: +34 937494502 - Fax: +34 938646076
info@cromauto.com
www.cromauto.com
- 1.4 Emergency telephone number:** +34 937494502 (8:00-13:00) (14:30-17:30)

SECTION 2: HAZARDS IDENTIFICATION

- 2.1 Classification of the substance or mixture:**
CLP Regulation (EC) No 1272/2008:
Classification of this product has been carried out in accordance with CLP Regulation (EC) No 1272/2008.
Acute Tox. 4: Acute inhalation toxicity, Category 4, H332
Aquatic Chronic 3: Hazardous to the aquatic environment, long-term hazard, Category 3, H412
Flam. Liq. 3: Flammable liquids, Category 3, H226
Skin Sens. 1: Sensitisation, skin, Category 1, H317
STOT SE 3: Specific toxicity causing drowsiness and dizziness, single exposure, Category 3, H336
STOT SE 3: Respiratory tract toxicity, single exposure, Category 3, H335
- 2.2 Label elements:**
CLP Regulation (EC) No 1272/2008:
Warning
- 
- Hazard statements:**
Acute Tox. 4: H332 - Harmful if inhaled
Aquatic Chronic 3: H412 - Harmful to aquatic life with long lasting effects
Flam. Liq. 3: H226 - Flammable liquid and vapour
Skin Sens. 1: H317 - May cause an allergic skin reaction
STOT SE 3: H336 - May cause drowsiness or dizziness
STOT SE 3: H335 - May cause respiratory irritation
- Precautionary statements:**
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
P280: Wear protective gloves/protective clothing/eye protection/face protection
P302+P352: IF ON SKIN: Wash with plenty of water
P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing
P370+P378: In case of fire: Use ABC powder extinguisher to extinguish.
P501: Dispose of the contents/containers in accordance with the current legislation on waste treatment
- Supplementary information:**
EUH066: Repeated exposure may cause skin dryness or cracking
EUH204: Contains isocyanates. May produce an allergic reaction
- Substances that contribute to the classification**
Hexamethylene diisocyanate, oligomers; N-butyl acetate; Heptan-2-one; Solvent naphtha (petroleum), light arom., < 0.1 % EC 200-753-7
- 2.3 Other hazards:**
Product fails to meet PBT/vPvB criteria

** Changes with regards to the previous version

- CONTINUED ON NEXT PAGE -

CRH 44 CATALIZADOR UHS MEDIO MEDIUM UHS HARDENER
Solvent based Hardeners

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS **

3.1 Substance:

Non-applicable

3.2 Mixture:

Chemical description: Mixture composed of additives and resins in solvents

Components:

In accordance with Annex II of Regulation (EC) No 1907/2006 (point 3), the product contains:

Identification	Chemical name/Classification	Concentration
CAS: 28182-81-2 EC: 931-274-8 Index: Non-applicable REACH: 01-2119485796-17-XXXX	Hexamethylene diisocyanate, oligomers <input type="checkbox"/> ¹ <input type="checkbox"/> Regulation 1272/2008 Acute Tox. 4: H332; Skin Sens. 1: H317; STOT SE 3: H335 - Warning	Self-classified 50 - <100 %
CAS: 123-86-4 EC: 204-658-1 Index: 607-025-00-1 REACH: 01-2119485493-29-XXXX	N-butyl acetate <input type="checkbox"/> ² <input type="checkbox"/> Regulation 1272/2008 Flam. Liq. 3: H226; STOT SE 3: H336; EUH066 - Warning	ATP CLP00 10 - <25 %
CAS: 110-43-0 EC: 203-767-1 Index: 606-024-00-3 REACH: 01-2119902391-49-XXXX	Heptan-2-one <input type="checkbox"/> ¹ <input type="checkbox"/> Regulation 1272/2008 Acute Tox. 4: H302+H332; Flam. Liq. 3: H226 - Warning	ATP CLP00 10 - <25 %
CAS: 64742-95-6 EC: 265-199-0 Index: 649-356-00-4 REACH: 01-2119486773-24-XXXX	Solvent naphtha (petroleum), light arom., < 0.1 % EC 200-753-7 <input type="checkbox"/> ¹ <input type="checkbox"/> Regulation 1272/2008 Aquatic Chronic 2: H411; Asp. Tox. 1: H304; Flam. Liq. 3: H226; Skin Irrit. 2: H315; STOT SE 3: H336; EUH066 - Danger	ATP ATP01 2,5 - <5 %

¹ Substances presenting a health or environmental hazard which meet criteria laid down in Regulation (EU) No. 2015/830
 ² Voluntarily-listed substance failing to meet any of the criteria set out in Regulation (EU) No. 2015/830

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

** Changes with regards to the previous version

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures:

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By inhalation:

Remove the person affected from the area of exposure, provide with fresh air and keep at rest. In serious cases such as cardiorespiratory failure, artificial resuscitation techniques will be necessary (mouth to mouth resuscitation, cardiac massage, oxygen supply, etc.) requiring immediate medical assistance.

By skin contact:

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, in which case this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:

Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

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

Acute and delayed effects are indicated in sections 2 and 11.

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

Non-applicable

SECTION 5: FIREFIGHTING MEASURES

- CONTINUED ON NEXT PAGE -

CRH 44 CATALIZADOR UHS MEDIO MEDIUM UHS HARDENER
Solvent based Hardeners

SECTION 5: FIREFIGHTING MEASURES (continued)

5.1 Extinguishing media:

If possible use polyvalent powder fire extinguishers (ABC powder), alternatively use foam or carbon dioxide extinguishers (CO₂). IT IS RECOMMENDED NOT to use tap water as an extinguishing agent.

5.2 Special hazards arising from the substance or mixture:

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Advice for firefighters:

Depending on the magnitude of the fire it may be necessary to use full protective clothing and self-contained breathing apparatus (SCBA). Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...) in accordance with Directive 89/654/EC.

Additional provisions:

Act in accordance with the Internal Emergency Plan and the Information Sheets on actions to take after an accident or other emergencies. Eliminate all sources of ignition. In case of fire, cool the storage containers and tanks for products susceptible to combustion, explosion or BLEVE as a result of high temperatures. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:

Isolate leaks provided that there is no additional risk for the people performing this task. Evacuate the area and keep out those without protection. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Above all prevent the formation of any vapour-air flammable mixtures, through either ventilation or the use of an inert medium. Destroy any source of ignition. Eliminate electrostatic charges by interconnecting all the conductive surfaces on which static electricity could form, and also ensuring that all surfaces are connected to the ground.

6.2 Environmental precautions:

Avoid at all cost any type of spillage into an aqueous medium. Contain the product absorbed appropriately in hermetically sealed containers. Notify the relevant authority in case of exposure to the general public or the environment.

6.3 Methods and material for containment and cleaning up:

It is recommended:

Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:

See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:

A.- Precautions for safe manipulation

Comply with the current legislation concerning the prevention of industrial risks. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions

Transfer in well ventilated areas, preferably through localized extraction. Fully control sources of ignition (mobile phones, sparks,...) and ventilate during cleaning operations. Avoid the existence of dangerous atmospheres inside containers, applying inertization systems where possible. Transfer at a slow speed to avoid the creation of electrostatic charges. Against the possibility of electrostatic charges: ensure a perfect equipotential connection, always use groundings, do not wear work clothes made of acrylic fibres, preferably wearing cotton clothing and conductive footwear. Comply with the essential security requirements for equipment and systems defined in Directive 94/9/EC (ATEX 100) and with the minimum requirements for protecting the security and health of workers under the selection criteria of Directive 1999/92/EC (ATEX 137). Consult section 10 for conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks

Due to the danger of this product for the environment it is recommended to use it within an area containing contamination control barriers in case of spillage, as well as having absorbent material in close proximity.

- CONTINUED ON NEXT PAGE -

CRH 44 CATALIZADOR UHS MEDIO MEDIUM UHS HARDENER Solvent based Hardeners

SECTION 7: HANDLING AND STORAGE (continued)

7.2 Conditions for safe storage, including any incompatibilities:

A.- Technical measures for storage

Minimum Temp.:	5 °C
Maximum Temp.:	30 °C
Maximum time:	12 Months

B.- General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:

Substances whose occupational exposure limits have to be monitored in the work environment

Identification		Environmental limits	
Heptan-2-one	IOELV (8h)	50 ppm	238 mg/m ³
CAS: 110-43-0	IOELV (STEL)	100 ppm	475 mg/m ³
EC: 203-767-1	Year	2018	

DNEL (Workers):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Hexamethylene diisocyanate, oligomers CAS: 28182-81-2 EC: 931-274-8	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Inhalation	Non-applicable	1 mg/m ³	Non-applicable	0,5 mg/m ³
N-butyl acetate CAS: 123-86-4 EC: 204-658-1	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Inhalation	960 mg/m ³	960 mg/m ³	480 mg/m ³	480 mg/m ³
Heptan-2-one CAS: 110-43-0 EC: 203-767-1	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	54,27 mg/kg	Non-applicable
	Inhalation	1516 mg/m ³	Non-applicable	394,25 mg/m ³	Non-applicable

DNEL (General population):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
N-butyl acetate CAS: 123-86-4 EC: 204-658-1	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Inhalation	859,7 mg/m ³	859,7 mg/m ³	102,34 mg/m ³	102,34 mg/m ³
Heptan-2-one CAS: 110-43-0 EC: 203-767-1	Oral	Non-applicable	Non-applicable	23,32 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	23,32 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	84,31 mg/m ³	Non-applicable

PNEC:

Identification				
Hexamethylene diisocyanate, oligomers CAS: 28182-81-2 EC: 931-274-8	STP	38,3 mg/L	Fresh water	0,127 mg/L
	Soil	53182 mg/kg	Marine water	0,0127 mg/L
	Intermittent	1,27 mg/L	Sediment (Fresh water)	266700 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	26670 mg/kg
N-butyl acetate CAS: 123-86-4 EC: 204-658-1	STP	35,6 mg/L	Fresh water	0,18 mg/L
	Soil	0,0903 mg/kg	Marine water	0,018 mg/L
	Intermittent	0,36 mg/L	Sediment (Fresh water)	0,981 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	0,0981 mg/kg

- CONTINUED ON NEXT PAGE -

CRH 44 CATALIZADOR UHS MEDIO MEDIUM UHS HARDENER
Solvent based Hardeners

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

Identification				
Heptan-2-one	STP	12,5 mg/L	Fresh water	0,0982 mg/L
CAS: 110-43-0	Soil	0,321 mg/kg	Marine water	0,00982 mg/L
EC: 203-767-1	Intermittent	0,982 mg/L	Sediment (Fresh water)	1,89 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	0,189 mg/kg



8.2 Exposure controls:

A.- General security and hygiene measures in the work place



As a preventative measure it is recommended to use basic Personal Protective Equipment, with the corresponding <<CE marking>> in accordance with Directive 89/686/EC. For more information on Personal Protective Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1.

All information contained herein is a recommendation which needs some specification from the labour risk prevention services as it is not known whether the company has additional measures at its disposal.

B.- Respiratory protection



Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory respiratory tract protection	Filter mask for gases, vapours and particles		EN 149:2001+A1:2009 EN 405:2001+A1:2009	Replace when an increase in resistance to breathing is observed and/or a smell or taste of the contaminant is detected.

C.- Specific protection for the hands





Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory hand protection	NON-disposable chemical protective gloves		EN 374-1:2003 EN 374-3:2003/AC:2006 EN 420:2003+A1:2009	The Breakthrough Time indicated by the manufacturer must exceed the period during which the product is being used. Do not use protective creams after the product has come into contact with skin.

"As the product is a mixture of several substances, the resistance of the glove material can not be predicted in advance with total reliability and has therefore to be checked prior to the application"



D.- Ocular and facial protection

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory face protection	Face mask		EN 166:2001 EN 167:2001 EN 168:2001 EN ISO 4007:2012	Clean daily and disinfect periodically according to the manufacturer's instructions. Use if there is a risk of splashing.

E.- Body protection

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory complete body protection	Disposable clothing for protection against chemical risks, with antistatic and fireproof properties		EN 1149-1,2,3 EN 13034:2005+A1:2009 EN ISO 13982-1:2004/A1:2010 EN ISO 6529:2001 EN ISO 6530:2005 EN ISO 13688:2013 EN 464:1994	For professional use only. Clean periodically according to the manufacturer's instructions.
 Mandatory foot protection	Safety footwear for protection against chemical risk, with antistatic and heat resistant properties		EN 13287:2008 EN ISO 20345:2011 EN 13832-1:2006	Replace boots at any sign of deterioration.

F.- Additional emergency measures

Emergency measure	Standards	Emergency measure	Standards
 Emergency shower	ANSI Z358-1 ISO 3864-1:2002	 Eyewash stations	DIN 12 899 ISO 3864-1:2002

- CONTINUED ON NEXT PAGE -

CRH 44 CATALIZADOR UHS MEDIO MEDIUM UHS HARDENER
Solvent based Hardeners

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

Volatile organic compounds:

With regard to Directive 2010/75/EU, this product has the following characteristics:

V.O.C. (Supply):	36,94 % weight
V.O.C. density at 20 °C:	380,45 kg/m ³ (380,45 g/L)
Average carbon number:	6,69
Average molecular weight:	115,75 g/mol

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

For complete information see the product datasheet.

Appearance:

Physical state at 20 °C:	Liquid
Appearance:	Fluid
Colour:	Colourless
Odour:	Solvent
Odour threshold:	Non-applicable *

Volatility:

Boiling point at atmospheric pressure:	131 °C
Vapour pressure at 20 °C:	803 Pa
Vapour pressure at 50 °C:	4115 Pa (4 kPa)
Evaporation rate at 20 °C:	Non-applicable *

Product description:

Density at 20 °C:	1020 - 1040 kg/m ³
Relative density at 20 °C:	1,02 - 1,04
Dynamic viscosity at 20 °C:	59 - 39 cP
Kinematic viscosity at 20 °C:	48 cSt
Kinematic viscosity at 40 °C:	Non-applicable *
Concentration:	Non-applicable *
pH:	Non-applicable *
Vapour density at 20 °C:	Non-applicable *
Partition coefficient n-octanol/water 20 °C:	Non-applicable *
Solubility in water at 20 °C:	Non-applicable *
Solubility properties:	Immiscible
Decomposition temperature:	Non-applicable *
Melting point/freezing point:	Non-applicable *
Explosive properties:	Non-applicable *
Oxidising properties:	Non-applicable *

Flammability:

Flash Point:	32 °C
Flammability (solid, gas):	Non-applicable *
Autoignition temperature:	393 °C
Lower flammability limit:	Not available

*Not relevant due to the nature of the product, not providing information property of its hazards.

- CONTINUED ON NEXT PAGE -

CRH 44 CATALIZADOR UHS MEDIO MEDIUM UHS HARDENER
Solvent based Hardeners

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Upper flammability limit:	Not available
Explosive:	
Lower explosive limit:	Non-applicable *
Upper explosive limit:	Non-applicable *
9.2 Other information:	
Surface tension at 20 °C:	Non-applicable *
Refraction index:	Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:

Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:

Applicable for handling and storage at room temperature:

Shock and friction	Contact with air	Increase in temperature	Sunlight	Humidity
Not applicable	Not applicable	Risk of combustion	Avoid direct impact	Not applicable

10.5 Incompatible materials:

Acids	Water	Combustive materials	Combustible materials	Others
Avoid strong acids	Not applicable	Avoid direct impact	Not applicable	Avoid alkalis or strong bases

10.6 Hazardous decomposition products:

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO₂), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:

The experimental information related to the toxicological properties of the product itself is not available

Dangerous health implications:

In case of exposure that is repetitive, prolonged or at concentrations higher than the recommended occupational exposure limits, adverse effects on health may result, depending on the means of exposure:

A- Ingestion (acute effect):

- Acute toxicity : Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met. However, it does contain substances classified as dangerous for this effect. For more information see section 3.

B- Inhalation (acute effect):

- Acute toxicity : Exposure in high concentration can interfere with the central nervous system causing headache, dizziness, vertigo, nausea, vomiting, confusion, and in serious cases, loss of consciousness.
- Corrosivity/Irritability: Causes irritation in respiratory passages, which is normally reversible and limited to the upper respiratory passages.

C- Contact with the skin and the eyes (acute effect):

- CONTINUED ON NEXT PAGE -

CRH 44 CATALIZADOR UHS MEDIO MEDIUM UHS HARDENER
Solvent based Hardeners

SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Contact with the skin: Based on available data, the classification criteria are not met. However, it contains substances classified as dangerous for skin contact. For more information see section 3.
- Contact with the eyes: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
 - Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
 - Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
 - Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- E- Sensitizing effects:
 - Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
 - Cutaneous: Prolonged contact with the skin can result in episodes of allergic contact dermatitis.
- F- Specific target organ toxicity (STOT) - single exposure:

Causes irritation in respiratory passages, which is normally reversible and limited to the upper respiratory passages.
- G- Specific target organ toxicity (STOT)-repeated exposure:
 - Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
 - Skin: Repeated exposure may cause skin dryness or cracking
- H- Aspiration hazard:

Based on available data, the classification criteria are not met. However, it does contain substances classified as dangerous for this effect. For more information see section 3.

Other information:

Non-applicable

Specific toxicology information on the substances:

Identification		Acute toxicity	Genus
Solvent naphtha (petroleum), light arom., < 0.1 % EC 200-753-7 CAS: 64742-95-6 EC: 265-199-0	LD50 oral	2100 mg/kg	Rat
	LD50 dermal	2000 mg/kg	Rabbit
	LC50 inhalation	>20 mg/L (4 h)	
N-butyl acetate CAS: 123-86-4 EC: 204-658-1	LD50 oral	12789 mg/kg	Rat
	LD50 dermal	14112 mg/kg	Rabbit
	LC50 inhalation	23,4 mg/L (4 h)	Rat
Hexamethylene diisocyanate, oligomers CAS: 28182-81-2 EC: 931-274-8	LD50 oral	5100 mg/kg	Rat
	LD50 dermal	>2000 mg/kg	
	LC50 inhalation	11 mg/L (4 h) (ATEi)	
Heptan-2-one CAS: 110-43-0 EC: 203-767-1	LD50 oral	500 mg/kg	Rat
	LD50 dermal	10206 mg/kg	Rabbit
	LC50 inhalation	11 mg/L (4 h)	Rat

Acute Toxicity Estimate (ATE mix):

	ATE mix	Ingredient(s) of unknown toxicity
Oral	3333,33 mg/kg (Calculation method)	0 %
Dermal	57142,86 mg/kg (Calculation method)	0 %
Inhalation	14,1 mg/L (4 h) (Calculation method)	0 %

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Toxicity:

- CONTINUED ON NEXT PAGE -

CRH 44 CATALIZADOR UHS MEDIO MEDIUM UHS HARDENER
Solvent based Hardeners

SECTION 12: ECOLOGICAL INFORMATION (continued)

Identification		Acute toxicity	Species	Genus
N-butyl acetate	LC50	62 mg/L (96 h)	Leuciscus idus	Fish
CAS: 123-86-4	EC50	73 mg/L (24 h)	Daphnia magna	Crustacean
EC: 204-658-1	EC50	675 mg/L (72 h)	Scenedesmus subspicatus	Algae
Heptan-2-one	LC50	131 mg/L (96 h)	Pimephales promelas	Fish
CAS: 110-43-0	EC50	Non-applicable		
EC: 203-767-1	EC50	Non-applicable		
Solvent naphtha (petroleum), light arom., < 0.1 % EC 200-753-7	LC50	1 - 10 mg/L (96 h)		Fish
CAS: 64742-95-6	EC50	1 - 10 mg/L		Crustacean
EC: 265-199-0	EC50	1 - 10 mg/L		Algae

12.2 Persistence and degradability:

Identification		Degradability		Biodegradability	
N-butyl acetate	BOD5	Non-applicable	Concentration	Non-applicable	
CAS: 123-86-4	COD	Non-applicable	Period	5 days	
EC: 204-658-1	BOD5/COD	0.79	% Biodegradable	84 %	
Solvent naphtha (petroleum), light arom., < 0.1 % EC 200-753-7	BOD5	0.19 g O2/g	Concentration	Non-applicable	
CAS: 64742-95-6	COD	0.44 g O2/g	Period	Non-applicable	
EC: 265-199-0	BOD5/COD	0.43	% Biodegradable	Non-applicable	

12.3 Bioaccumulative potential:

Identification		Bioaccumulation potential	
N-butyl acetate	BCF	4	
CAS: 123-86-4	Pow Log	1.78	
EC: 204-658-1	Potential	Low	
Heptan-2-one	BCF	7	
CAS: 110-43-0	Pow Log	1.98	
EC: 203-767-1	Potential	Low	
Solvent naphtha (petroleum), light arom., < 0.1 % EC 200-753-7	BCF		
CAS: 64742-95-6	Pow Log	4	
EC: 265-199-0	Potential		

12.4 Mobility in soil:

Identification		Absorption/desorption		Volatility	
N-butyl acetate	Koc	Non-applicable	Henry	Non-applicable	
CAS: 123-86-4	Conclusion	Non-applicable	Dry soil	Non-applicable	
EC: 204-658-1	Surface tension	2,478E-2 N/m (25 °C)	Moist soil	Non-applicable	
Heptan-2-one	Koc	280	Henry	17,12 Pa·m ³ /mol	
CAS: 110-43-0	Conclusion	Moderate	Dry soil	Yes	
EC: 203-767-1	Surface tension	2,612E-2 N/m (25 °C)	Moist soil	Yes	

12.5 Results of PBT and vPvB assessment:

Product fails to meet PBT/vPvB criteria

12.6 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods:

Code	Description	Waste class (Regulation (EU) No 1357/2014)
08 01 11*	waste paint and varnish containing organic solvents or other hazardous substances	Dangerous

Type of waste (Regulation (EU) No 1357/2014):

HP14 Ecotoxic, HP3 Flammable, HP5 Specific Target Organ Toxicity (STOT)/Aspiration Toxicity, HP6 Acute Toxicity, HP13 Sensitising

- CONTINUED ON NEXT PAGE -

CRH 44 CATALIZADOR UHS MEDIO MEDIUM UHS HARDENER
Solvent based Hardeners

SECTION 13: DISPOSAL CONSIDERATIONS (continued)

Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations in accordance with Annex 1 and Annex 2 (Directive 2008/98/EC). As under 15 01 (2014/955/EC) of the code and in case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See paragraph 6.2.

Regulations related to waste management:

In accordance with Annex II of Regulation (EC) No 1907/2006 (REACH) the community or state provisions related to waste management are stated

Community legislation: Directive 2008/98/EC, 2014/955/EU, Regulation (EU) No 1357/2014

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:

With regard to ADR 2017 and RID 2017:



- | | |
|---|------------------------|
| 14.1 UN number: | UN1263 |
| 14.2 UN proper shipping name: | PAINT RELATED MATERIAL |
| 14.3 Transport hazard class(es): | 3 |
| Labels: | 3 |
| 14.4 Packing group: | III |
| 14.5 Environmental hazards: | No |
| 14.6 Special precautions for user | |
| Special regulations: | 163, 367, 640E, 650 |
| Tunnel restriction code: | D/E |
| Physico-Chemical properties: | see section 9 |
| Limited quantities: | 5 L |
| 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code: | Non-applicable |

Transport of dangerous goods by sea:

With regard to IMDG 38-16:



- | | |
|---|------------------------|
| 14.1 UN number: | UN1263 |
| 14.2 UN proper shipping name: | PAINT RELATED MATERIAL |
| 14.3 Transport hazard class(es): | 3 |
| Labels: | 3 |
| 14.4 Packing group: | III |
| 14.5 Environmental hazards: | No |
| 14.6 Special precautions for user | |
| Special regulations: | 163, 223, 955, 367 |
| EmS Codes: | F-E, S-E |
| Physico-Chemical properties: | see section 9 |
| Limited quantities: | 5 L |
| 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code: | Non-applicable |

Transport of dangerous goods by air:

With regard to IATA/ICAO 2017:

- CONTINUED ON NEXT PAGE -

CRH 44 CATALIZADOR UHS MEDIO MEDIUM UHS HARDENER
Solvent based Hardeners

SECTION 14: TRANSPORT INFORMATION (continued)



14.1 UN number:	UN1263
14.2 UN proper shipping name:	PAINT RELATED MATERIAL
14.3 Transport hazard class(es):	3
Labels:	3
14.4 Packing group:	III
14.5 Environmental hazards:	No
14.6 Special precautions for user	
Physico-Chemical properties:	see section 9
14.7 Transport in bulk according to Annex II of Marpol and the IBC Code:	Non-applicable

SECTION 15: REGULATORY INFORMATION

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

Candidate substances for authorisation under the Regulation (EC) No 1907/2006 (REACH): Non-applicable

Substances included in Annex XIV of REACH ("Authorisation List") and sunset date: Non-applicable

Regulation (EC) No 1005/2009, about substances that deplete the ozone layer: Non-applicable

Article 95, REGULATION (EU) No 528/2012: Non-applicable

REGULATION (EU) No 649/2012, in relation to the import and export of hazardous chemical products: Non-applicable

Limitations to commercialisation and the use of certain dangerous substances and mixtures (Annex XVII REACH, etc):

Shall not be used, as substance or as mixtures in aerosol dispensers where these aerosol dispensers are intended for supply to the general public for entertainment and decorative purposes such as the following:

- metallic glitter intended mainly for decoration,
- artificial snow and frost,
- "whoopee" cushions,
- silly string aerosols,
- imitation excrement,
- horns for parties,
- decorative flakes and foams,
- artificial cobwebs,
- stink bombs.

Without prejudice to the application of other Community provisions on the classification, packaging and labelling of substances, suppliers shall ensure before the placing on the market that the packaging of aerosol dispensers referred to above is marked visibly, legibly and indelibly with:

'For professional users only'.

Shall not be used in:

- ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays,
- tricks and jokes,
- games for one or more participants, or any article intended to be used as such, even with ornamental aspects.

Specific provisions in terms of protecting people or the environment:

It is recommended to use the information included in this safety data sheet as a basis for conducting workplace-specific risk assessments in order to establish the necessary risk prevention measures for the handling, use, storage and disposal of this product.

Other legislation:

The product could be affected by sectorial legislation

15.2 Chemical safety assessment:

The supplier has not carried out evaluation of chemical safety.

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:

This safety data sheet has been designed in accordance with ANNEX II-Guide to the compilation of safety data sheets of Regulation (EC) No 1907/2006 (Regulation (EC) No 2015/830)

- CONTINUED ON NEXT PAGE -

CRH 44 CATALIZADOR UHS MEDIO MEDIUM UHS HARDENER
Solvent based Hardeners

SECTION 16: OTHER INFORMATION (continued)

Modifications related to the previous Safety Data Sheet which concerns the ways of managing risks.:

COMPOSITION/INFORMATION ON INGREDIENTS (SECTION 3):

- Removed substances

Hexamethylene-di-isocyanate (822-06-0)

Content of the 3rd section presenting modifications (SECTION 3):

- Solvent naphtha (petroleum), light arom., < 0.1 % EC 200-753-7 (64742-95-6): Hazard statements

Texts of the legislative phrases mentioned in section 2:

H336: May cause drowsiness or dizziness

H335: May cause respiratory irritation

H412: Harmful to aquatic life with long lasting effects

H317: May cause an allergic skin reaction

H332: Harmful if inhaled

H226: Flammable liquid and vapour

Texts of the legislative phrases mentioned in section 3:

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

CLP Regulation (EC) No 1272/2008:

Acute Tox. 4: H302+H332 - Harmful if swallowed or if inhaled

Acute Tox. 4: H332 - Harmful if inhaled

Aquatic Chronic 2: H411 - Toxic to aquatic life with long lasting effects

Asp. Tox. 1: H304 - May be fatal if swallowed and enters airways

Flam. Liq. 3: H226 - Flammable liquid and vapour

Skin Irrit. 2: H315 - Causes skin irritation

Skin Sens. 1: H317 - May cause an allergic skin reaction

STOT SE 3: H335 - May cause respiratory irritation

STOT SE 3: H336 - May cause drowsiness or dizziness

Classification procedure:

STOT SE 3: Calculation method

STOT SE 3: Calculation method

Aquatic Chronic 3: Calculation method

Skin Sens. 1: Calculation method

Acute Tox. 4: Calculation method

Flam. Liq. 3: Calculation method (2.6.4.3)

Advice related to training:

Minimal training is recommended in order to prevent industrial risks for staff using this product and to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:

<http://echa.europa.eu>

<http://eur-lex.europa.eu>

Abbreviations and acronyms:

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

IMDG: International maritime dangerous goods code

IATA: International Air Transport Association

ICAO: International Civil Aviation Organisation

COD: Chemical Oxygen Demand

BOD5: 5-day biochemical oxygen demand

BCF: Bioconcentration factor

LD50: Lethal Dose 50

LC50: Lethal Concentration 50

EC50: Effective concentration 50

Log-POW: Octanol–water partition coefficient

Koc: Partition coefficient of organic carbon

The information contained in this safety data sheet is based on sources, technical knowledge and current legislation at European and state level, without being able to guarantee its accuracy. This information cannot be considered a guarantee of the properties of the product, it is simply a description of the security requirements. The occupational methodology and conditions for users of this product are not within our awareness or control, and it is ultimately the responsibility of the user to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information on this safety data sheet only refers to this product, which should not be used for needs other than those specified.

- END OF SAFETY DATA SHEET -