Safety data sheet
according to 1907/2006/EC, Article 31

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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier: XCH3028

Trade name: UHS Hardener for Premium VOC 2K Clear Coat

1.2 Relevant identified uses of the substance or mixture and uses advised against
Identified uses: professional use.
Uses advised against: do-it-yourself
Application of the substance / the mixture Hardening agent/ Curing agent

1.3 Details of the supplier of the safety data sheet Manufacturer/Supplier: ReCorp s.r.o.
Jána Hollého 699/55
Michalovce 071 01
ICO: 47 503 181
Tel.:+421 907 319 730
Further information obtainable from:info@trixxal.com

1.4 Emergency telephone number:
Národné toxikologické a informačné centrum
FNsP Akadémia L. Dérera
Limbová 5, SK – 833 05 Bratislava
+ 421 254 774 166 (24 hours per day)
Fax: + 421 254 774 605

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
Classification according to Regulation (EC) No 1272/2008

GHS02

Flam. Liq. 3 H226 Flammable liquid and vapour.

GHS07

Acute Tox. 4 H332 Harmful if inhaled.
Skin Sens. 1 H317 May cause an allergic skin reaction.
STOT SE 3 H335-H336 May cause respiratory irritation. May cause drowsiness or dizziness.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC

Xn; Harmful

R20: Harmful by inhalation.

Xi; Irritant

R37: Irritating to respiratory system.

Xi; Sensitising

R43: May cause sensitisation by skin contact.
R10-66: Flammable. Repeated exposure may cause skin dryness or cracking.

2.2 Label elements
Labelling according to Regulation (EC) No 1272/2008
The product is classified and labelled according to the CLP regulation.
Hazard pictograms

GHS02 GHS07

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Signal word Warning

Hazard-determining components of labelling:
hexamethylene diisocyanate homopolymer
heptan-2-one
n-butyl acetate
tosyl isocyanate
Hazard statements
H226 Flammable liquid and vapour.
H332 Harmful if inhaled.
H317 May cause an allergic skin reaction.
H335-H336 May cause respiratory irritation. May cause drowsiness or dizziness.
Precautionary statements
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261 Avoid breathing mist/vapours/spray.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
Additional information:
EUH066 Repeated exposure may cause skin dryness or cracking.
Contains isocyanates. May produce an allergic reaction.

2.3 Other hazards
Results of PBT and vPvB assessment
PBT: Not applicable.
vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

3.2 Chemical characterisation: Mixtures
Description: Mixture of substances listed below with nonhazardous additions.

Dangerous components:		
CAS: 28182-81-2 NLP: 500-060-2 Reg.nr.: 01-2119488934-20 01-2119485796-17	hexamethylene diisocyanate homopolymer Xn R20; Xi R37; Xi R43 Acute Tox. 4, H332; Skin Sens. 1, H317; STOT SE 3, H335	50-100%
CAS: 123-86-4 EINECS: 204-658-1 Reg.nr.: 01-2119485493-29	n-butyl acetate R10-66-67 Flam. Liq. 3, H226; STOT SE 3, H336	10-25%
CAS: 110-43-0 EINECS: 203-767-1 Reg.nr.: 01-2119902391-49	heptan-2-one Xn R20/22 R10-67 Flam. Liq. 3, H226; Acute Tox. 4, H302; Acute Tox. 4, H332; STOT SE 3, H336	10-25%
CAS: 4083-64-1 EINECS: 223-810-8 Reg.nr.: 01-2119980050-47	tosyl isocyanate Xi R36/37/38; Xn R42 R14 Resp. Sens. 1, H334; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	0.1-<1%

Additional information: For the wording of the listed risk phrases refer to section 16.

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SECTION 4: First aid measures

4.1 Description of first aid measures
General information:
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
Immediately remove any clothing soiled by the product.
In case of irregular breathing or respiratory arrest provide artificial respiration.
Take affected persons out of danger area and lay down.
After inhalation:
Supply fresh air and to be sure call for a doctor.
In case of unconsciousness place patient stably in side position for transportation.
After skin contact:
Immediately wash with water and soap and rinse thoroughly.
If skin irritation continues, consult a doctor.
After eye contact: *Rinse opened eye for several minutes under running water.*
After swallowing: *Do not induce vomiting; call for medical help immediately.*
4.2 Most important symptoms and effects, both acute and delayed *No further relevant information available.*
4.3 Indication of any immediate medical attention and special treatment needed
No further relevant information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media
Suitable extinguishing agents: *CO2, sand, extinguishing powder. Do not use water.*
For safety reasons unsuitable extinguishing agents: *Water with full jet*
5.2 Special hazards arising from the substance or mixture
Can form explosive gas-air mixtures.
Formation of toxic gases is possible during heating or in case of fire.
Hydrogen cyanide (HCN)
Isocyanate vapors.
Carbon monoxide and carbon dioxide
5.3 Advice for firefighters
Protective equipment:
Wear self-contained respiratory protective device.
Do not inhale explosion gases or combustion gases.
Additional information
Cool endangered receptacles with water spray.
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.
Collect contaminated fire fighting water separately. It must not enter the sewage system.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation
Keep away from ignition sources.
6.2 Environmental precautions: *Do not allow to enter sewers/ surface or ground water.*
6.3 Methods and material for containment and cleaning up:
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.
Do not flush with water or aqueous cleansing agents
6.4 Reference to other sections
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.

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See Section 13 for disposal information.

SECTION 7: Handling and storage

7.1 Precautions for safe handling
Ensure good ventilation/exhaustion at the workplace.
Ensure good interior ventilation, especially at floor level. (Fumes are heavier than air).
Do not inhale gases / fumes / aerosols.
Do not eat, drink, smoke or sniff while working.
Do not allow to enter sewers/ surface or ground water.
Information about fire - and explosion protection:
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
Use explosion-proof apparatus / fittings and spark-proof tools.
Fumes can combine with air to form an explosive mixture.

7.2 Conditions for safe storage, including any incompatibilities
Storage:
Requirements to be met by storerooms and receptacles: *Store only in the original receptacle.*
Information about storage in one common storage facility:
Store away from foodstuffs.
Store away from oxidising agents.
Further information about storage conditions:
Store in cool, dry conditions in well sealed receptacles.
Protect from heat and direct sunlight.
Store receptacle in a well ventilated area.
7.3 Specific end use(s) *No further relevant information available.*

SECTION 8: Exposure controls/personal protection

Additional information about design of technical facilities: *No further data; see item 7.*

8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace:	
123-86-4 n-butyl acetate	
WEL (Great Britain)	Short-term value: 966 mg/m³, 200 ppm Long-term value: 724 mg/m³, 150 ppm
110-43-0 heptan-2-one	
WEL (Great Britain)	Short-term value: 475 mg/m³, 100 ppm Long-term value: 237 mg/m³, 50 ppm Sk
IOELV (EU)	Short-term value: 475 mg/m³, 100 ppm Long-term value: 238 mg/m³, 50 ppm Skin
4083-64-1 tosyl isocyanate	
WEL (Great Britain)	Short-term value: 0.07 mg/m³ Long-term value: 0.02 mg/m³ Sen; as -NCO

DNELs		
28182-81-2 hexamethylene diisocyanate homopolymer		
Inhalative	DNEL	1 mg/m3 (acute - local effects, workers) 0.5 mg/m3 (long-term - local effects, workers)
123-86-4 n-butyl acetate		
Dermal	DNEL	7 mg/kg bw/day (long-term - systemic effects, workers)

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Inhalative	DNEL	48 mg/m3 (long-term - systemic effects, workers)

PNECs	
28182-81-2 hexamethylene diisocyanate homopolymer	
PNEC	0.127 mg/l (freshwater environment) 0.0127 mg/l (marine environment) 1.27 mg/l (intermittent releases) 266700 mg/kg (freshwater sediment environment) 26670 mg/kg (marine sediment environment) 53182 mg/kg (soil) 38.3 mg/l (sewage treatment plants)
123-86-4 n-butyl acetate	
PNEC	0.18 mg/l (freshwater environment) 0.018 mg/l (marine environment) 0.36 mg/l (intermittent releases) 0.981 mg/kg (freshwater sediment environment) 0.0981 mg/kg (marine sediment environment) 0.0903 mg/kg (soil) 35.6 mg/l (sewage treatment plants)

Additional information: The lists valid during the making were used as basis.

8.2 Exposure controls
Personal protective equipment:
General protective and hygienic measures:
Ensure good ventilation/exhaustion at the workplace.
Ensure good interior ventilation, especially at floor level. (Fumes are heavier than air).
Keep ignition sources away - Do not smoke.
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Do not inhale gases / fumes / aerosols.
Do not eat or drink while working.
Respiratory protection:
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
Filter A/P2
Use suitable respiratory protective device in case of insufficient ventilation.
Protection of hands:

Protective gloves

Check the permeability prior to each anewed use of the glove.
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation (EN 374).
Material of gloves
Butyl rubber, BR
Nitrile rubber, NBR
PVA gloves
Recommended thickness of the material: ≥ 0,7 mm
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

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Penetration time of glove material
Value for the permeation: Level 6 ≥ 480 min.
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
Eye protection:

Tightly sealed goggles

Body protection: Protective work clothing

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties	
General Information	
Appearance:	
Form:	Fluid
Colour:	Colourless/ slightly yellow
Odour:	Characteristic
Odour threshold:	Not determined.
pH-value:	Not applicable.
Change in condition	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	124 °C Undetermined.
Flash point:	27 °C
Flammability (solid, gaseous):	Not applicable.
Decomposition temperature:	Not determined.
Auto-ignition temperature:	Not determined.
Danger of explosion:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
Explosion limits:	
Lower:	1.2 Vol %
Upper:	15.0 Vol %
Vapour pressure at 20 °C:	10.7 hPa
Density at 20 °C:	1 g/cm³
Vapour density	Not determined.
Evaporation rate	Not determined.
Solubility in / Miscibility with water:	Reacts with water.
Partition coefficient (n-octanol/water):	Not determined.
Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
9.2 Other information	No further relevant information available.

SECTION 10: Stability and reactivity

10.1 Reactivity No decomposition if used according to specifications.

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10.2 Chemical stability No decomposition if used and stored according to specifications.
10.3 Possibility of hazardous reactions
Reacts with amines.
Reacts with water.
Reacts with alkali, amines and strong acids.
Reacts with oxidising agents.
Fumes can combine with air to form an explosive mixture.
10.4 Conditions to avoid Protect from heat and direct sunlight.
10.5 Incompatible materials: No further relevant information available.
10.6 Hazardous decomposition products:
Carbon monoxide and carbon dioxide
Formation of toxic gases is possible during heating or in case of fire.

SECTION 11: Toxicological information

11.1 Information on toxicological effects
Acute toxicity:

LD/LC50 values relevant for classification:		
28182-81-2 hexamethylene diisocyanate homopolymer		
Oral	LD50	> 2500 mg/kg (rat)
Dermal	LD50	> 2000 mg/kg (rat)
Inhalative	ATE	1.5 mg/l (-)
123-86-4 n-butyl acetate		
Oral	LD50	10760 mg/kg (rat)
Dermal	LD50	>14000 mg/kg (rabbit)
Inhalative	LC50/4 h	23.4 mg/l (rat)
110-43-0 heptan-2-one		
Oral	LD50	1600 mg/kg (rat)
Dermal	LD50	> 2000 mg/kg (rabbit)
Inhalative	LC50/4 h	> 16.7 mg/l (rat)

Primary irritant effect:
on the skin: No irritant effect.
on the eye: No irritating effect.
Sensitisation: Sensitisation possible through skin contact.
Additional toxicological information:
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
Harmful
Irritant

SECTION 12: Ecological information

12.1 Toxicity
Aquatic toxicity: No further relevant information available.

12.2 Persistence and degradability	
28182-81-2 hexamethylene diisocyanate homopolymer	
Biodegradation	1 % (not readily biodegradable) (OECD 31 D, 28 d, aerobic)
123-86-4 n-butyl acetate	
Biodegradation	83 % (readily biodegradable) (OECD 301 D, 28 d, aerobic)

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12.3 Bioaccumulative potential	
28182-81-2 hexamethylene diisocyanate homopolymer	
BCF	*3.2 (-)*
log Kow	*9.81 (-)*
123-86-4 n-butyl acetate	
BCF	*15.3 (-)*
log Kow	*2.3 (-)*

12.4 Mobility in soil *No further relevant information available.*
Additional ecological information:
General notes:
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
12.5 Results of PBT and vPvB assessment
PBT: *Not applicable.*
vPvB: *Not applicable.*
12.6 Other adverse effects *No further relevant information available.*

SECTION 13: Disposal considerations

13.1 Waste treatment methods
Recommendation
Must not be disposed together with household garbage. Do not allow product to reach sewage system.

European waste catalogue	
*08 01 11**	*waste paint and varnish containing organic solvents or other dangerous substances*

Uncleaned packaging:
Recommendation: *Disposal must be made according to official regulations.*

SECTION 14: Transport information

14.1 UN-Number	
ADR, IMDG, IATA	*UN1263*
14.2 UN proper shipping name	
ADR	*1263 PAINT RELATED MATERIAL*
IMDG, IATA	*PAINT RELATED MATERIAL*
14.3 Transport hazard class(es)	
ADR, IMDG, IATA	
Class	*3 Flammable liquids.*
Label	*3*
14.4 Packing group	
ADR, IMDG, IATA	*III*
14.5 Environmental hazards:	
Marine pollutant:	*No*
14.6 Special precautions for user	*Warning: Flammable liquids.*
Danger code (Kemler):	*30*
EMS Number:	*F-E,S-E*
14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	*Not applicable.*
Transport/Additional information:	
ADR	
Limited quantities (LQ)	*5L*

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Transport category	*3*
Tunnel restriction code	*D/E*
UN "Model Regulation":	*UN1263, PAINT RELATED MATERIAL, 3, III*

SECTION 15: Regulatory information

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

National regulations:

Information about limitation of use:
Employment restrictions concerning juveniles must be observed.
Employment restrictions concerning pregnant and lactating women must be observed.
15.2 Chemical safety assessment: *A Chemical Safety Assessment has not been carried out.*

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Relevant phrases
H226 Flammable liquid and vapour.
H302 Harmful if swallowed.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.

R10 Flammable.
R14 Reacts violently with water.
R20 Harmful by inhalation.
R20/22 Harmful by inhalation and if swallowed.
R36/37/38 Irritating to eyes, respiratory system and skin.
R37 Irritating to respiratory system.
R42 May cause sensitisation by inhalation.
R43 May cause sensitisation by skin contact.
R66 Repeated exposure may cause skin dryness or cracking.
R67 Vapours may cause drowsiness and dizziness.

Abbreviations and acronyms:
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
DNEL: Derived No-Effect Level (REACH)
PNEC: Predicted No-Effect Concentration (REACH)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Flam. Liq. 3: Flammable liquids, Hazard Category 3
Acute Tox. 4: Acute toxicity, Hazard Category 4
Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2
Resp. Sens. 1: Sensitisation - Respirat., Hazard Category 1
Skin Sens. 1: Sensitisation - Skin, Hazard Category 1

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STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3
Sources *European Chemicals Agency, http://echa.europa.eu/*