

SAFETY DATA SHEET
according to 1907/2006/EC, Article 31

Revision date: 21.03.2022

**1- IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/
UNDERTAKING**

Product details

Trade name: UHS Hardener fast

Article number: 12784, 12787

Relevant identified uses of the substance or mixture and uses advised against:

No further relevant information available.

Intended use: Car refinishing product/ Hardening agent/ Curing agent

Manufacturer/Supplier:

Chamäleon GmbH

Rudolf-Diesel-Straße, 8a, 69115 Heidelberg

Germany

Further information obtainable from: Product Safety Department

Information in case of emergency: + 49 70024112112 (CH)

2 – HAZARDS IDENTIFICATION

Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008



flame

Flam. Liq. 3 H226

Flammable liquid and vapour.



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

STOT SE 3 H335-H336 May cause respiratory irritation. May cause drowsiness or dizziness.

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

Signal word Warning**Hazard-determining components of labelling:**

Hexamethylene diisocyanate, oligomers

n-Butyl acetate

2-Methoxy-1-methylethyl acetate

Hazard statements

H226 Flammable liquid and vapour.

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 dust/fume/gas/mist/vapours/spray.

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

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P312 Call a POISON CENTER/doctor if you feel unwell.

Additional information:

EUH066 Repeated exposure may cause skin dryness or cracking.

EUH204 Contains isocyanates. May produce an allergic reaction.

Restricted to professional users.

Other hazards**Results of PBT and vPvB assessment**

PBT: Not applicable. vPvB:

Not applicable.

3- COMPOSITION/INFORMATION ON INGREDIENTS

Chemical characterization: Mixtures**Description:** Mixture of substances listed below with nonhazardous additions.**Dangerous components:**

CAS: 123-86-4 EINECS: 204-658-1 Reg.nr.: 01-2119485493-29	n-Butyl acetate	50-100%
	Flam. Liq. 3, H226; STOT SE 3, H336	
CAS: 28182-81-2 NLP: 500-060-2 Reg.nr.: 01-2119485796-17	Hexamethylene diisocyanate, oligomers	25-50%
	Acute Tox. 4, H332; Skin Sens. 1, H317; STOT SE 3, H335	
CAS: 108-65-6 EINECS: 203-603-9 Reg.nr.: 01-2119475791-29	2-Methoxy-1-methylethyl acetate	2.5-<10%
	Flam. Liq. 3, H226; STOT SE 3, H336	
CAS: 112-07-2 EINECS: 203-933-3 Reg.nr.: 01-2119475112-47	2-Butoxyethyl acetate	2.5-<5%
	Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332	

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

4- FIRST - AID MEASURE

Description of first aid measures

General information:

Immediately remove any clothing soiled by the product.

In case of irregular breathing or respiratory arrest provide artificial respiration.

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 rinse with water.

After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

After swallowing: If symptoms persist consult doctor.

Indication of any immediate medical attention and special treatment needed

No further relevant information available.

5- FIRE - FIGHTING MEASURE

Extinguishing media

Suitable extinguishing agents:

CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

For safety reasons unsuitable extinguishing agents: Water with full jet

Special hazards arising from the substance or mixture:

In case of fire, the following can be released:

Nitrogen oxides (NO_x)

Carbon monoxide (CO)

Hydrogen cyanide (HCN)

Advice for firefighters:

Protective equipment: Mouth respiratory protective device.

6- ACCIDENTAL RELEASE MEASURE

Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

Environmental precautions: Do not allow to enter sewers/ surface or ground water.

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.

Ensure adequate ventilation.

Contain and collect spillages with non-combustible absorbent materials (e.g. sand, earth, diatomaceous earth) and place in a suitable container.

Decontaminate immediately with suitable mixture (flammable):

- as such usable (inflammatory!):

water	45 Vol.%
ethanol or isopropanol	50 Vol.%
ammonia solution (Density= 0.88)	5 Vol.%
- alternatively (non-flammable):

sodium carbonate	5 Vol.%
water	95 Vol.%

Add the same decontaminant to any residues and allow to stand for several days in a non-sealed container until no further reaction occurs. Once this stage is reached, close the container and dispose of in accordance with the waste regulations (see Section 13).

Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7- HANDLING AND STORAGE

Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

Persons with a history of asthma, allergies or chronic or recurrent respiratory diseases should only be employed in processes in which this product is used under appropriate medical supervision.

Information about fire - and explosion protection:

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

Conditions for safe storage, including any incompatibilities

Storage:

Requirements to be met by storerooms and receptacles: No special requirements.

Information about storage in one common storage facility:

Do not store together with reducing agents, heavy-metal compounds, acids and alkalis.

Store away from foodstuffs.

Further information about storage conditions:

Keep container tightly sealed.

Store separately from oxidising agents, strongly alkaline and strongly acidic materials, amines, alcohol and water.

Storage class: 3

Specific end use(s) No further relevant information available.

8- EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

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

Ingredients with limit values that require monitoring at the workplace:	
123-86-4 n-Butyl acetate	
WEL	Short-term value: 966 mg/m ³ , 200 ppm Long-term value: 724 mg/m ³ , 150 ppm
28182-81-2 Hexamethylene diisocyanate, oligomers	
EBW	Short-term value: 0.5 mg/m ³ exposition evaluation valu TRGS 430 (EBW)
108-65-6 2-Methoxy-1-methylethyl acetate	
WEL	Short-term value: 548 mg/m ³ , 100 ppm Long-term value: 274 mg/m ³ , 50 ppm Sk
112-07-2 2-Butoxyethyl acetate	
WEL	Short-term value: 332 mg/m ³ , 50 ppm Long-term value: 133 mg/m ³ , 20 ppm Sk

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

Exposure controls

Personal protective equipment:

All personal protective equipment, including respiratory protective equipment, used to control exposure to hazardous substances must be selected to meet the requirements of the COSHH Regulations.

General protective and hygienic measures:

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

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.

Protection of hands:

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Protective gloves (EN 374)

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Material of gloves

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.

Eye protection: Tightly sealed goggles

9- PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties	
General Information	
Appearance:	
Form:	<i>Fluid</i>
Colour:	<i>According to product specification</i>
Odour:	<i>Characteristic</i>
Odour threshold:	<i>Not determined.</i>
pH-value:	<i>Not determined.</i>
Change in condition	
Melting point/freezing point:	<i>Undetermined.</i>
Initial boiling point and boiling range:	<i>124-128 °C</i>
Flash point:	<i>27 °C (DIN EN ISO 1523:2002)</i>
Flammability (solid, gas):	<i>Not applicable.</i>
Ignition temperature:	<i>315 °C (DIN 51794)</i>
Decomposition temperature:	<i>Not determined.</i>

Auto-ignition temperature:	<i>Product is not selfigniting.</i>
Explosive properties:	<i>Product is not explosive. However, formation of explosive air/vapour mixtures are possible.</i>
Explosion limits: Lower: Upper:	1.2 Vol % 7.5 Vol %
Vapour pressure at 20 °C:	10.7 hPa
Density at 20 °C: Relative density Vapour density Evaporation rate	0.974 g/cm ³ (DIN EN ISO 2811-1) Not determined. Not determined. Not determined.
Solubility in / Miscibility with water:	<i>Not miscible or difficult to mix.</i>
Partition coefficient: n-octanol/water	<i>Not determined.</i>
Viscosity: Dynamic: Kinematic at 20 °C:	Not determined. 10-15 s (DIN 53211/4)
Solvent content: VOC (EC)	63.92 %
Solids content (weight-%)Other information:	36.1 % <i>No further relevant information available.</i>

10- STABILITY AND REACTIVITY

Reactivity: No further relevant information available.

Chemical stability

Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

Possibility of hazardous reactions: No dangerous reactions known.

Conditions to avoid: No further relevant information available.

Incompatible materials: No further relevant information available.

Hazardous decomposition products:

Possible in traces.

Nitrogen oxides

Hydrogen chloride (HCl)

Hydrogen cyanide (prussic acid)

Carbon monoxide

Nitrogen oxides (NO_x)

11- TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute toxicity: Based on available data, the classification criteria are not met.

LD/LC50 values relevant for classification:		
123-86-4 n-Butyl acetate		
Oral	LD50	13,100 mg/kg (rat)
Dermal	LD50	>5,000 mg/kg (rabbit)

Primary irritant effect:

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

Serious eye damage/irritation: Based on available data, the classification criteria are not met.

Respiratory or skin sensitisation:

May cause an allergic skin reaction.

Additional toxicological information:

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

Carcinogenicity: Based on available data, the classification criteria are not met.

Reproductive toxicity: Based on available data, the classification criteria are not met.

STOT-single exposure:

May cause respiratory irritation. May cause drowsiness or dizziness.

STOT-repeated exposure: Based on available data, the classification criteria are not met.

Aspiration hazard: Based on available data, the classification criteria are not met.

12 – ECOLOGICAL INFORMATION

Toxicity

Aquatic toxicity: No further relevant information available.

Persistence and degradability: No further relevant information available.

Bioaccumulative potential: No further relevant information available.

Mobility in soil: No further relevant information available.

Additional ecological information:

General notes:

Water hazard class 1 (German Regulation) : slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Results of PBT and vPvB assessment:

PBT: Not applicable.

vPvB: Not applicable.

Other adverse effects: No further relevant information available.

13- DISPOSAL CONSIDERATION

Waste treatment methods

Recommendation:

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

Uncleaned packaging:

Recommendation:

Packagings that may not be cleansed are to be disposed of in the same manner as the product.

14- TRANSPORT INFORMATION

UN-Number

ADR, IMDG, IATA

UN1263

UN proper shipping name

ADR

IMDG, IATA

UN1263 PAINT RELATED MATERIAL

PAINT RELATED MATERIAL

Transport hazard class(es)

ADR



Class

3 (F1) Flammable liquids.

Label

3

IMDG, IATA



Class

3 Flammable liquids.

Label

3

Packing group

ADR, IMDG, IATA

III

Environmental hazards:

Not applicable.

Special precautions for user

Warning: Flammable liquids.

Hazard identification number (Kemler code): 30
EMS Number: F-E,S-E
Stowage Category A

**Transport in bulk according to Annex II of
Marpol and the IBC Code** Not applicable.

Transport/Additional information:

ADR

Limited quantities (LQ) 5L
Transport category 3
Tunnel restriction code D/E

IMDG

Limited quantities (LQ) 5L
Remarks: ≤ 5 l: 2.2.3.1.5 IMDG

UN "Model Regulation": UN 1263 PAINT RELATED MATERIAL, 3, III

15 – REGULATORY INFORMATION

**Safety, health and environmental regulations/legislation specific for the substance or mixture.
Directive 2012/18/EU**

Named dangerous substances - ANNEX I None of the ingredients is listed.

Seveso category P5c FLAMMABLE LIQUIDS

Qualifying quantity (tonnes) for the application of lower-tier requirements 5,000 t

Qualifying quantity (tonnes) for the application of upper-tier requirements 50,000 t

National regulations:

Additional classification according to Decree on Hazardous Materials, Annex II:

Class	Share in %
NK	50-100

Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16-OTHER INFORMATION

Relevant phrases

H226 Flammable liquid and vapour.
H302 Harmful if swallowed.

- H312 Harmful in contact with skin.
- H317 May cause an allergic skin reaction.
- H332 Harmful if inhaled.
- H335 May cause respiratory irritation.
- H336 May cause drowsiness or dizziness.

Classification according to Regulation (EC) No 1272/2008

The classification of the mixture is generally based on the calculation method using substance data according to Regulation (EC) No 1272/2008.

Abbreviations and acronyms:

ADR: Accord relatif au transport international 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)

VOC: Volatile Organic Compounds (USA, EU)

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 – Category 3

Acute Tox. 4: Acute toxicity – Category 4

Skin Sens. 1: Skin sensitisation – Category 1

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

The information contained in these sheets is based on the present state of knowledge and current national legislation. It provides guidance on health, safety and environmental aspects and should not be construed as any guarantee of technical performance or suitability for particular applications.