

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by
Commission Regulation (EU) 2020/878 - Germany

SAFETY DATA SHEET

100VR1433 HARDENER

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

1.1 Product identifier

Product name : 100VR1433 HARDENER
UFI : U5U0-Q06K-900G-TNJ7
Product code : 1623110, 1623110-T86, 1623110-T85, 1623110-T84,
1623110-T83, 1623110-D09, 1623110-D08, 1623110-D01
Product description : Not available.
Product type : liquid
Other means of identification : 100VR1433 HARDENER

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

Identified uses

Not applicable.

Uses advised against

Not applicable.

1.3 Details of the supplier of the safety data sheet

RUCOINX Druckfarben
A. M. Ramp & Co. GmbH
Lorsbacher Str. 28
Eppstein
Germany
D-65817
+49.6198.304 0
8:00-16:00 (working hours)

e-mail address of person responsible for this SDS : info.de@inx europe.com

National contact

Not available.

1.4 Emergency telephone number

National advisory body/Poison Center

Telephone number :

Supplier

Telephone number : +49.6198.304 0
Hours of operation : 8:00-16:00 (working hours)
Information limitations : Not available.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Flam. Liq. 3, H226

Eye Irrit. 2, H319

Skin Sens. 1, H317

STOT SE 3, H336 (Narcotic effects)

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms :



Signal word :

Warning

Hazard statements :

H226: Flammable liquid and vapor.

H317: May cause an allergic skin reaction.

H319: Causes serious eye irritation.

H336: May cause drowsiness or dizziness.

Precautionary statements

General :

P103: Read carefully and follow all instructions.

P102: Keep out of reach of children.

P101: If medical advice is needed, have product container or label at hand.

Prevention :

P280: Wear protective gloves.

P280: Wear eye or face protection.

P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

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

P261: Avoid breathing vapor.

P264: Wash thoroughly after handling.

Response :

P304: IF INHALED:

P304 + P312: Call a POISON CENTER or doctor if you feel unwell.

P362 + P364: Take off contaminated clothing and wash it before reuse.

P302: IF ON SKIN:

P302 + P352: Wash with plenty of water.

P333: If skin irritation or rash occurs:

P333 + P313: Get medical advice or attention.

P305: IF IN EYES:

P305 + P351 + P338: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

	Continue rinsing. P337: If eye irritation persists: P337 + P313: Get medical advice or attention.
Storage	: P405: Store locked up. P403 + P233: Store in a well-ventilated place. Keep container tightly closed.
Disposal	: P501: Dispose of contents and container in accordance with all local, regional, national and international regulations.
Contains	: Toluene diisocyanate, oligomeric reaction products with 2,2'-oxydiethanol and propylidenetriethanol n-butyl acetate m-tolylidene diisocyanate
Supplemental label elements	: Contains isocyanates. May produce an allergic reaction.
Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	: Not applicable.
Special packaging requirements	
Containers to be fitted with child-resistant fastenings	: Not applicable.
Tactile warning of danger	: Not applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII	: This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
Other hazards which do not result in classification	: None known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
Toluene diisocyanate, oligomeric reaction products with 2,2'-oxydiethanol and propylidenetriethanol	CAS : 53317-61-6	>= 50 - <= 75	Eye Irrit. 2, H319 Skin Sens. 1, H317	-	[1]
n-butyl acetate	REACH#: 01-2119485493-29-XXXX	>= 25 - <= 50	Flam. Liq. 3, H226 STOT SE 3, H336 (Narcotic effects)	-	[1] [2]

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	EC : 204-658-1 CAS : 123-86-4 Index: 607-025-00-1		EUH066		
m-tolylidene diisocyanate	REACH#: 01-2119454791-34-XXXX EC : 247-722-4 CAS : 26471-62-5 Index: 615-006-00-4	> 0 - < 0,1	Acute Tox. 2, H330 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Resp. Sens. 1, H334 Carc. 2, H351 Aquatic Chronic 3, H412	ATE [Inhalation (dusts and mists)] = 0,12 mg/l Resp. Sens. 1, H334: >= 0,1 %	[1] [2]

See Section 16 for the full text of the H statements declared above.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

Substance classified with a health or environmental hazard

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

- | | | |
|---------------------|---|---|
| Eye contact | : | Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention. |
| Inhalation | : | Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. |
| Skin contact | : | Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse. |
| Ingestion | : | Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the |

- exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. If necessary, call a poison center or physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following: pain or irritation, watering, redness
- Inhalation** : Adverse symptoms may include the following: nausea or vomiting, headache, drowsiness/fatigue, dizziness/vertigo, unconsciousness
- Skin contact** : Adverse symptoms may include the following: irritation, redness
- Ingestion** : No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media** : Use dry chemical, CO₂, water spray (fog) or foam.
- Unsuitable extinguishing media** : Do not use water jet.

5.2 Special hazards arising from the substance or mixture

- Hazards from the substance or mixture** : Flammable liquid and vapor. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion.
- Hazardous combustion products** : Decomposition products may include the following materials: carbon dioxide, carbon monoxide

5.3 Advice for firefighters

- Special protective actions for** : Promptly isolate the scene by removing all persons from the

- fire-fighters** : vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

- 6.2 Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product.

- 6.4 Reference to other sections** : See Section 1 for emergency contact information.
 See Section 8 for information on appropriate personal protective equipment.
 See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Seveso Directive - Reporting thresholds

Seveso Directive - Reporting thresholds

Danger criteria

Category	Notification and MAPP threshold	Safety report threshold
P5c	5 000 kg	50 000 kg

7.3 Specific end use(s)

- Recommendations** : Not available.
- Industrial sector specific solutions** : Not available.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
n-butyl acetate	TRGS 900 OEL (2012-07-01). TWA 300 mg/m ³ 62 ppm TRGS 900 OEL (2012-07-01). PEAK 600 mg/m ³ 124 ppm DFG MAC-values list (2002-07-01). [n-Butyl acetate] PEAK 960 mg/m ³ 200 ppm TWA 480 mg/m ³ 100 ppm EU OEL (2019-11-20). [n-butyl acetate] STEL 723 mg/m ³ 150 ppm TWA 241 mg/m ³ 50 ppm
m-tolylidene diisocyanate	DFG MAC-values list (2020-08-26). [Toluene diisocyanate] Skin sensitizer. Inhalation sensitizer. PEAK 0,007 mg/m ³ 0,001 ppm TWA 0,007 mg/m ³ 0,001 ppm DFG MAC-values list (2020-08-26). [Toluene diisocyanate] Skin sensitizer. Inhalation sensitizer. CEIL 0,035 mg/m ³ 0,005 ml/m ³

Biological exposure indices

No exposure indices known.

Recommended monitoring procedures

: Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

Product/ingredient name	Type	Exposure	Value	Population	Effects
n-butyl acetate	DNEL	Short term Oral	2 mg/kg bw/day	General population	Systemic
	DNEL	Short term Inhalation	600 mg/m ³	Workers	Systemic

	DNEL	Short term Inhalation	600 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	300 mg/m ³	Workers	Local
	DNEL	Short term Inhalation	300 mg/m ³	General population	Systemic
	DNEL	Short term Inhalation	300 mg/m ³	General population	Local
	DNEL	Long term Inhalation	48 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	35,7 mg/m ³	General population	Local
	DNEL	Long term Inhalation	12 mg/m ³	General population	Systemic
	DNEL	Short term Dermal	11 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	7 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Dermal	6 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	3,4 mg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	2 mg/kg bw/day	General population	Systemic
	DNEL	Short term Oral	2 mg/kg bw/day	General population	Systemic
	DNEL	Short term Inhalation	600 mg/m ³	Workers	Systemic
	DNEL	Short term Inhalation	600 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	300 mg/m ³	Workers	Local
	DNEL	Short term Inhalation	300 mg/m ³	General population	Systemic
	DNEL	Short term Inhalation	300 mg/m ³	General population	Local
	DNEL	Long term Inhalation	48 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	35,7 mg/m ³	General population	Local
	DNEL	Long term Inhalation	12 mg/m ³	General population	Systemic
	DNEL	Short term Dermal	11 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	7 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Dermal	6 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	3,4 mg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	2 mg/kg bw/day	General population	Systemic
m-tolylidene diisocyanate	DNEL	Long term Inhalation	0,035 mg/m ³	Workers	Local
	DNEL	Short term Inhalation	0,14 mg/m ³	Workers	Systemic
	DNEL	Short term	0,14 mg/m ³	Workers	Local

		Inhalation			
	DNEL	Long term Inhalation	0,035 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	0,035 mg/m ³	Workers	Local
	DNEL	Short term Inhalation	0,14 mg/m ³	Workers	Systemic
	DNEL	Short term Inhalation	0,14 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	0,035 mg/m ³	Workers	Systemic

PNECs

No PNECs available.

8.2 Exposure controls

Appropriate engineering controls

- : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Individual protection measures

Hygiene measures

- : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

- : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Skin protection

Hand protection

- : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection

- : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves. Refer to

Other skin protection	:	European Standard EN 1149 for further information on material and design requirements and test methods.
	:	Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	:	Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.
Environmental exposure controls	:	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties

Appearance

Physical state	:	liquid
Color	:	Colorless.
Odor	:	Not available.
Odor threshold	:	Not available.
Melting point/freezing point	:	Not available.
Initial boiling point and boiling range	:	126,00 °C Not available.
Flammability	:	Not available.
Lower and upper explosion limit	:	Lower: Not available. Upper: Not available.
Flash point	:	Closed cup: 27 °C (81 °F)
Auto-ignition temperature	:	Not Available
Decomposition temperature	:	Not available.
pH	:	Product is non-polar/aprotic.
Viscosity	:	Dynamic Not available. : Kinematic Not available. :
Solubility in water	:	Not available.
Partition coefficient: n-octanol/water	:	Not applicable.

Vapor pressure :
Relative density : 0,95
Vapor density : Not available.
Explosive properties : Not available.
Oxidizing properties : Not available.
VOC : 35,05 %(m)

Particle characteristics

Median particle size : Not applicable.

SECTION 10: Stability and reactivity

- 10.1 Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- 10.2 Chemical stability** : The product is stable.
- 10.3 Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- 10.4 Conditions to avoid** : Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.
- 10.5 Incompatible materials** : Reactive or incompatible with the following materials: oxidizing materials
- 10.6 Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
n-butyl acetate				
	LD50 Oral	Rat	10 768 mg/kg	-
	LD50 Dermal	Rabbit	17 600 mg/kg	-
m-tolylidene diisocyanate				
	LD50 Oral	Rat	4 130 mg/kg	-
	LC50 Inhalation Dusts and mists	Rat	0,48 mg/l	1 h

Conclusion/Summary : Not available.

Acute toxicity estimates

Product/ingredient name	Oral	Dermal	Inhalation (gases)	Inhalation (vapors)	Inhalation (dusts and mists)
n-butyl acetate	10768 mg/kg	17600 mg/kg	N/A	N/A	N/A
m-tolylidene diisocyanate	4130 mg/kg	N/A	N/A	N/A	0,12 mg/l

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
n-butyl acetate	Eyes - Moderate irritant	Rabbit	-		-
	Skin - Moderate irritant	Rabbit	-	24 hrs	-
m-tolylidene diisocyanate	Skin - Severe irritant	Rabbit	-		-

Conclusion/Summary

Skin : Not available.
Eyes : Not available.
Respiratory : Not available.

Sensitization

Conclusion/Summary

Skin : Not available.
Respiratory : Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
n-butyl acetate	Category 3	-	Narcotic effects

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : Causes serious eye irritation.
Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
Skin contact : May cause an allergic skin reaction.
Ingestion : Can cause central nervous system (CNS) depression.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following: pain or irritation, watering, redness
Inhalation : Adverse symptoms may include the following: nausea or vomiting, headache, drowsiness/fatigue, dizziness/vertigo, unconsciousness
Skin contact : Adverse symptoms may include the following: irritation, redness
Ingestion : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Potential chronic health effects

Conclusion/Summary : Not available.
General : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
Carcinogenicity : No known significant effects or critical hazards.
Mutagenicity : No known significant effects or critical hazards.
Reproductive toxicity : No known significant effects or critical hazards.

11.2. Information on other hazards

11.2.1 Endocrine disrupting properties : Not available.

11.2.2 Other information : Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
n-butyl acetate			
	Acute LC50 18 mg/l Fresh water	Fish - <i>Pimephales promelas</i>	96 h
	Acute LC50 32 mg/l Marine water	Crustaceans - <i>Artemia salina</i>	48 h

Conclusion/Summary : Not available.

12.2 Persistence and degradability

Conclusion/Summary : Not available.

12.3 Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
n-butyl acetate	2,3	-	low
m-tolylidene diisocyanate	3,43	-	low

12.4 Mobility in soil

Soil/water partition coefficient (KOC) : Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Endocrine disrupting properties : Not available.

12.7 Other adverse effects : No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product

Methods of disposal : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal

contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

Hazardous waste : The classification of the product may meet the criteria for a hazardous waste.

Packaging

Methods of disposal : The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number or ID number	UN1866	UN1866	UN1866	UN1866
14.2 UN proper shipping name	Resin Solution	Resin Solution	Resin Solution	Resin Solution
14.3 Transport hazard class(es)	3 	3 	3 	3 
14.4 Packing group	III	III	III	III
14.5. Environmental hazards	No.	Yes.	No.	No.

Additional information

ADR/RID : **Tunnel code** (D/E)

ADN : The product is only regulated as an environmentally hazardous substance when transported in tank vessels.

14.6 Special precautions for user : Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Maritime transport in bulk according to IMO instruments : Not available.

SECTION 15: Regulatory information

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

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorization

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Product/ingredient name	%	Designation [Usage]
m-tolylidene diisocyanate	> 0 - < 0,1	74

Other EU regulations

Industrial emissions : Not listed
(integrated pollution prevention and control) - Air

Industrial emissions : Not listed
(integrated pollution prevention and control) -

Water

Explosive precursors : Not applicable.

Ozone depleting substances (1005/2009/EU)

None of the components are listed.

Prior Informed Consent (PIC) (649/2012/EU)

None of the components are listed.

Persistent Organic Pollutants

None of the components are listed.

Seveso Directive

This product is controlled under the Seveso Directive.

Danger criteria

Category
P5c

National regulations

Storage class (TRGS 510) : 3

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Hazardous incident ordinance

This product is controlled under the Germany Hazardous Incident Ordinance.

Danger criteria

Category	Reference number
P5c	1.2.5.3

Hazard class for water : WGK 1
Technical instruction on air : TA-Luft Number 5.2.5: 35 %
quality control
AOX : Not available.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Chemical Weapons Convention List Schedule I Chemicals

None of the components are listed.

Chemical Weapons Convention List Schedule II Chemicals

None of the components are listed.

Chemical Weapons Convention List Schedule III Chemicals

None of the components are listed.

Montreal Protocol

None of the components are listed.

Stockholm Convention on Persistent Organic Pollutants

Annex A - Elimination - Production

None of the components are listed.

Annex A - Elimination - Use

None of the components are listed.

Annex B - Restriction - Production

None of the components are listed.

Annex B - Restriction - Use

None of the components are listed.

Annex C - Unintentional - Production

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Rotterdam Convention on Prior Informed Consent (PIC) - Industrial

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC) - Pesticide

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC) - Severely hazardous pesticide

None of the components are listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Heavy metals - Annex 1

None of the components are listed.

POPs - Annex 1 - Production

None of the components are listed.

POPs - Annex 1 - Use

None of the components are listed.

POPs - Annex 2

None of the components are listed.

POPs - Annex 3

None of the components are listed.

Inventory list

Australia	:	All components are listed or exempted.
Canada	:	All components are listed or exempted.
China	:	All components are listed or exempted.
Eurasian Economic Union	:	Russian Federation inventory: All components are listed or exempted.
Japan	:	Japan inventory (CSCL): Not determined. Japan inventory (ISHL): Not determined.
New Zealand	:	All components are listed or exempted.
Philippines	:	All components are listed or exempted.
Republic of Korea	:	All components are listed or exempted.
Taiwan	:	All components are listed or exempted.
Thailand	:	All components are listed or exempted.
Turkey	:	Not determined.
United States	:	All components are listed or exempted.
Viet Nam	:	Not determined.

15.2 Chemical Safety Assessment	:	This product contains substances for which Chemical Safety Assessments are still required.
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SECTION 16: Other information

Abbreviations and acronyms	:	ATE = Acute Toxicity Estimate CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008] DMEL = Derived Minimal Effect Level DNEL = Derived No Effect Level EUH statement = CLP-specific Hazard statement N/A = Not available PBT = Persistent, Bioaccumulative and Toxic PNEC = Predicted No Effect Concentration RRN = REACH Registration Number SGG = Segregation Group vPvB = Very Persistent and Very Bioaccumulative
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Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

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Classification	Justification
Flam. Liq. 3, H226	On basis of test data
Eye Irrit. 2, H319	Calculation method
Skin Sens. 1, H317	Calculation method
STOT SE 3, H336 (Narcotic effects)	Calculation method

Full text of abbreviated H statements

H226	Flammable liquid and vapor.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H336	May cause drowsiness or dizziness.
H351	Suspected of causing cancer.
H412	Harmful to aquatic life with long lasting effects.
EUH066	Repeated exposure may cause skin dryness or cracking.

Full text of classifications [CLP/GHS]

Acute Tox. 2	ACUTE TOXICITY - Category 2
Aquatic Chronic 3	AQUATIC HAZARD (LONG-TERM) - Category 3
Carc. 2	CARCINOGENICITY - Category 2
Eye Irrit. 2	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2
Flam. Liq. 3	FLAMMABLE LIQUIDS - Category 3
Resp. Sens. 1	RESPIRATORY SENSITIZATION - Category 1
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
Skin Sens. 1	SKIN SENSITIZATION - Category 1
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 3

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