

Material Safety Data Sheet

according to the Regulation 1907/2006/EC (Annex II)



Product Name: 100VR1431
Date: 05.07.2010

Revision date: 05.07.2010

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY/UNDERTAKING

Product Name and Code: 100VR1431

Use of the substance/preparation

Printing
aids

Name of the manufacturer/company:

A.M.Ramp & Co GmbH
RUCO Druckfarben

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2. HAZARDS IDENTIFICATION

Danger classification



Xi Irritant

10 Flammable.
43 May cause sensitisation by skin contact.
66 Repeated exposure may cause skin dryness or cracking.
67 Vapours may cause drowsiness and dizziness.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical family

Solvent containing resin solution

Substances presenting a health or environmental hazard

EINECS-No. CAS-No.	Names R-phrases	Symb.	Conc.
212-485-8 822-06-0	hexamethylene-di-isocyanate 23-36/37/38-42/43	T	0,2 - 0,5
204-658-1 123-86-4	n-butyl acetate 10-66-67		20 - 25
500-060-2 28182-81-2	polyisocyanate 43	Xi	50 - 100

See full text of phrases under chapter 16.

4. FIRST AID MEASURES

General

In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.

Inhalation

Remove to fresh air, keep patient warm and at rest, if breathing is irregular or stopped, administer artificial respiration. Give nothing by mouth. If unconscious place in recovery position and seek medical advice.

Product Name: 100VR1431
Date: 05.07.2010

Revision date: 05.07.2010

Eye contact

Remove contact lenses, irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart and seek medical advice.

Skin contact

Remove contaminated clothing. Wash skin thoroughly with soap and water or use recognised skin cleanser. Do **not** use solvents or thinners.

Ingestion

If accidentally swallowed obtain immediate medical attention. Keep at rest. Do **not** induce vomiting.

5. FIRE-FIGHTING MEASURES

Extinguishing media

Recommended: alcohol resistant foam, CO₂, powders, water spray/mist.

Not to be used: waterjet.

Recommendations

Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard. Appropriate breathing apparatus may be required. Cool closed containers exposed to fire with water. Do not allow run-off from fire fighting to enter drains or water courses.

6. ACCIDENTAL RELEASE MEASURES

Exclude sources of ignition and ventilate the area. Avoid breathing vapours. Refer to protective measures listed in sections 7 and 8.

Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth. Place in a suitable container. The contaminated area should be cleaned up immediately with a suitable decontaminant.

One possible (flammable) decontaminant comprises (by volume):

- water (45 parts),
- ethanol or isopropyl alcohol (50 parts),
- concentrated (d : 0,880) ammonia solution (5 parts).

A non-flammable alternative is
sodium carbonate (5 parts),
water (95 parts).

Add the same decontaminant to the remnants and let stand for several days until no further reaction in non-sealed container. Once this stage is reached, close container and dispose according to local regulations (see section 13). Do not allow to enter drains or watercourses. If the product contaminates lakes, rivers or sewage, inform appropriate authorities in accordance with local regulations.

7. HANDLING AND STORAGE

Persons with a history of asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this preparation is used.

Examination of lung function should be carried out on a regular basis on persons spraying this preparation.

Handling

Vapours are heavier than air and may spread along floors. Vapours may form explosive mixtures with air. Prevent the creation of flammable or explosive concentrations of vapour in air and avoid vapour concentration higher than the occupational exposure limits. Additionally, the product should only be used in areas from which all naked lights and other sources of ignition have been excluded. Electrical equipment should be protected to the appropriate standard. Preparation may charge electrostatically: always use earthing leads when transferring from one container to another. Operators should wear antistatic footwear and clothing and floors should be of the conducting type. Keep container tightly closed. Precautions should be taken to minimise exposure to atmospheric humidity or water: CO₂ will be formed which in closed containers can result in pressurisation. Care should be taken when re-opening partly used containers. Isolate from sources of heat, sparks and open flame. No sparking tools should be used.

Avoid skin and eye contact. Avoid the inhalation of dust, particulates and spray mist arising from the application of this preparation. Avoid inhalation of dust from sanding. Smoking, eating and drinking should be prohibited in application area. For personal protection see Section 8. Never use pressure to empty: container is not a pressure vessel. Always keep in containers of same material as the original one. Comply with the health and safety at work laws.

Storage

Observe label precautions. Store between 5 and 40 °C in a dry, well ventilated place away from sources of heat and direct sunlight. Keep away from sources of ignition. Keep away from oxidizing agents, from strongly alkaline and strongly acid materials as well as of amines, alcohols and water. No smoking. Prevent unauthorized access. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Material Safety Data Sheet

according to the Regulation 1907/2006/EC (Annex II)



Product Name: 100VR1431
Date: 05.07.2010

Revision date: 05.07.2010

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Examination of lung function should be carried out on a regular basis on persons spraying this preparation.

Engineering Measures

Provide adequate ventilation. This should be achieved by the use of local exhaust ventilation and good general extraction. Air-fed protective respiratory equipment must be worn by spray operator even when good ventilation is provided. In other operations, if local exhaust ventilation and good general extraction are not sufficient to maintain concentrations of particulates and solvent vapour below the OEL, suitable respiratory must be worn. (See Personal Protection).

Exposure Limits

Occupational exposure limit for :

EINECS-No. CAS-No.	Names	STEL	LTEL
212-485-8 822-06-0	hexamethylene-di-isocyanate		0,035 mg/m3 0,005 ppm
204-658-1 123-86-4	n-butyl acetate	966 200	724 mg/m3 150 ppm

Personal Protection

Respiratory protection

By spraying: air fed respirator.

By other operations than spraying : in well ventilated areas, air-fed respirators could be replaced by a combination of charcoal filter and particulate filter mask.

Hand protection

For prolonged or repeated handling, use butyl rubber gloves. Barrier creams may help to protect the exposed areas of the skin, they should however not be applied once exposure has occurred.

Eye protection

Use safety eyewear designed to protect against splash of liquids.

Skin protection

Personnel should wear anti-static clothings made of natural fibre or of high temperature resistant synthetic fiber.

9. PHYSICAL AND CHEMICAL PROPERTIES

General information

appearance: pasteous
color: as labeled
odour: typical

Important health, safety and environmental information

Flash point:	35 °C	DIN 53213
Ignition temperature:	370 °C	
Lower explosion limit:	1,2 Vol. %	
Upper explosion limit:	7,5 Vol. %	
Vapour pressure at 20°C:	13,00 mbar	
Specific gravity at 20°C:	1,07 g/cm ³	
Water solubility:	not soluble	
Viscosity at 20°C:	30 s 4 mm	DIN 53211
Solvent-separation test:	< 3 %	ADR/RID
Percent volatile by weight:	25 %	

10. STABILITY AND REACTIVITY

Stable under recommended storage and handling conditions (See section 7).

In a fire, hazardous decomposition products such as smoke, carbon monoxide, carbon dioxide, oxides of nitrogen, hydrogen cyanide, may be produced. Keep away from oxidizing agents, strongly alkaline and strongly acidic materials, amines, alcohols and water. Uncontrolled exothermic reactions occur with amines and alcohols. The product reacts slowly with water resulting in evolution of carbon dioxide. In closed containers, pressure build up could result in distortion, blowing and in extreme cases bursting of the container.

11. TOXICOLOGICAL INFORMATION

There are no data available on the preparation itself. The preparation has been assessed following the conventional methods of the Dangerous Preparations Directive 1999/45/EC and classified for toxicological hazards accordingly. See Chapter 3 and 15 for

Material Safety Data Sheet

according to the Regulation 1907/2006/EC (Annex II)



Product Name: 100VR1431
Date: 05.07.2010

Revision date: 05.07.2010

details.

Based on the properties of the isocyanate components and considering toxicological data on similar preparations, this preparation may cause acute irritation and/or sensitization of the respiratory system leading to an asthmatic condition, wheeziness and a tightness of the chest. Sensitized persons may subsequently show asthmatic symptoms when exposed to atmospheric concentrations well below the OEL. Repeated exposure may lead to permanent respiratory disability.

Exposure to component solvents vapours concentration in excess of the stated occupational exposure limit may result in adverse health effect such as mucous membrane and respiratory system irritation and adverse effect on kidney, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness.

Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and absorption through the skin. Repeated or prolonged skin contact may lead to allergic contact dermatitis. The liquid splashed in the eyes may cause irritation and reversible damage.

12. ECOLOGICAL INFORMATION

The product should not be allowed to enter drains or water courses

The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and is not classified as dangerous for the environment.

13. DISPOSAL CONSIDERATIONS

Do not allow into drains or water courses. Residues in empty containers should be neutralised with decontaminant (see section 6). Wastes and emptied containers should be deposited according to the official rules.

Code of waste	Waste Designation
080312	waste ink containing dangerous substances

14. TRANSPORT INFORMATION

Transport only in accordance with ADR for road, RID for rail, IMDG for sea and ICAO/IATA for air transport.

ADR/RID Class:	3
Tremcard:	3
UN-No:	1866
Transport document name:	Resin solution
Packing group:	III
IMDG Class:	3
Tremcard:	3
EmS:	F-E, S-E
UN-No:	1866
Proper shipping name:	RESIN SOLUTION
Packing group:	III
Marine pollutant:	n.a.
ICAO/IATA-Class:	3
Tremcard:	3
UN-No:	1866
Proper shipping name:	Resin solution
Packing group:	III

15. REGULATORY INFORMATION

In accordance with requirements of the Classification Packaging and Labelling of Dangerous Preparations Regulations (1999/45/EC). The product is labelled as follows:

Danger classification



Xi Irritant

Contains

polyisocyanate

This information is supplied in the present Safety Data Sheet.

R-phrases

10	Flammable.
43	May cause sensitisation by skin contact.

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- 66 Repeated exposure may cause skin dryness or cracking.
- 67 Vapours may cause drowsiness and dizziness.

S-phrases

- 24 Avoid contact with skin.
- 37 Wear suitable gloves.
- 51 Use only in well-ventilated areas.

Special provisions concerning the labelling of preparations

- 91 Contains isocyanates. See information supplied by the manufacturer.

Information of VOC-properties

- VOC (g/l) DIN ISO 11890: 267,500
- VOC (g/l) ASTM D-3960-1: 267,500

16. OTHER INFORMATION

Full text of R-phrases with no. appearing in section 3

- 23 Toxic by inhalation.
- 36/37/38 Irritating to eyes, respiratory system and skin.
- 42/43 May cause sensitisation by inhalation and skin contact.
- 10 Flammable.
- 66 Repeated exposure may cause skin dryness or cracking.
- 67 Vapours may cause drowsiness and dizziness.
- 43 May cause sensitisation by skin contact.

The information of this SDS is based on the present state of our knowledge and on current EU and national laws. The product is not to be used for other purposes than those specified under section 1 without first obtaining written handling instruction. It is always the responsibility of the user to take all necessary steps in order to fulfil the demand laid down in the local rules and legislation. The information in this SDS is meant as a description of the safety requirements of our product: it is not to be considered as a guarantee of the products' properties.

Explanation: NA, n.a. = not known