

Safety Data Sheet

according to 1907/2006/EC, Article 31

Printing date 20.05.2008

V - 1

Revision: 20.05.2008

1 Identification of the substance/preparation and of the company/undertaking

· **Product details**

· **Trade name:** *CARSYSTEM 2K VOC Hardener 541 Standard*

· **Application of the substance / the preparation** *Hardening agent/ Curing agent*

· **Manufacturer/Supplier:**

Vosschemie GmbH

Esinger Steinweg 50

D-25436 Uetersen

Phone: +49 4122 717 0 Fax: +49 4122 717158 info@vosschemie.de

Distributor in New Zealand

R A Johnstone & Co Ltd

739 Great South Road, Otahuhu

PO Box 97 948 SAMC. Manukau 2240

Auckland. New Zealand

Ph :+64 9 261 0333

Fax:+64 9 261 0330

www.raj.co.nz

· **Further information obtainable from:**

Abteilung Labor / +49-4122-717-0

s.schaller@vosschemie.de

· **Information in case of emergency:**

Giftinformationszentrum (GIZ)-Nord, Goettingen, Deutschland

+49-551-19240, +49-551-383180

Emergency telephone in New Zealand

National Poison Center(24 hours):

0800 POISON [764 766]

2 Hazards identification

· **Hazard description:**



Xi Irritant



· **Information concerning particular hazards for human and environment:**

Vapours of the product are heavier than air and may accumulate on the ground, in mines, drains or cellars with higher concentration.

Heightened risk of fire and danger of explosion at accumulation in lower-lying or closed rooms

At long or repeated contact with skin it may cause dermatitis due to the degreasing effect of the solvent.

Has a narcotizing effect.

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

R 10 Flammable.

The HSN0 Approval Number for this Group Standard is HSR002662

R 36 Irritating to eyes.

R 43 May cause sensitisation by skin contact.

R 66 Repeated exposure may cause skin dryness or cracking.

R 67 Vapours may cause drowsiness and dizziness.

Contains isocyanates. See information supplied by the manufacturer

3 Composition/information on ingredients

· **Chemical characterization**

· **Description:** Mixture of substances listed below with nonhazardous additions.

· **Dangerous components:**

CAS: 28182-81-2 NLP: 500-060-2	Hexamethylene diisocyanate homopolymer Xi; R 43	25-50%
CAS: 123-86-4 EINECS: 204-658-1	n-butyl acetate R 10-66-67	25-50%
CAS: 108-65-6 EINECS: 203-603-9	2-methoxy-1-methylethyl acetate Xi; R 10-36	10-25%
CAS: 822-06-0 EINECS: 212-485-8	hexamethylene-di-isocyanate T, Xi; R 23-36/37/38-42/43	<2.5%

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

4 First aid measures

- **General information:** Immediately remove any clothing soiled by the product.
- **After inhalation:**
Supply fresh air or oxygen; call for 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.
Use skin protection cream for skin protection.
- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:**
Rinse out mouth and then drink plenty of water.
Do not induce vomiting; call for medical help immediately.

5 Fire-fighting measures

- **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 caused by the substance, its products of combustion or resulting gases:**
Nitrogen oxides (NO_x)
Carbon monoxide and carbon dioxide
Formation of toxic gases is possible during heating or in case of fire.
Can form explosive gas-air mixtures.
- **Protective equipment:** Wear self-contained respiratory protective device.
- **Additional information**
Cool endangered receptacles with water spray.
Remove undamaged containers from the danger zone.
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

6 Accidental release measures

- **Person-related safety precautions:**
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation
Keep away from ignition sources.
Use respiratory protective device against the effects of fumes/dust/aerosol.
Avoid contact with the eyes and skin.
- **Measures for environmental protection:**
Do not allow to enter sewers/ surface or ground water.
Prevent seepage into sewage system, workpits and cellars.
- **Measures for cleaning/collecting:**
Ensure adequate ventilation.
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose of the material collected according to regulations.

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7 Handling and storage

- **Handling:**
- **Information for safe handling:**
 - Ensure good ventilation/exhaustion at the workplace.
 - Ensure good interior ventilation, especially at floor level. (Fumes are heavier than air).
 - Use only in well ventilated areas.
 - Do not inhale gases / fumes / aerosols.
 - Avoid contact with the eyes and skin.
 - Adhere to the workplace limit values and / or other threshold values.
- **Information about fire - and explosion protection:**
 - Fumes can combine with air to form an explosive mixture.
 - Flammable gas-air mixtures may form in empty receptacles.
 - Keep ignition sources away - Do not smoke.
 - Protect against electrostatic charges.
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
 - Store only in the original receptacle.
 - Adhere to the provisions of the Law on Water Protection.
- **Information about storage in one common storage facility:**
 - Store away from foodstuffs.
 - Store away from oxidizing 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.

8 Exposure controls/personal protection

- **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 (Great Britain)	Short-term value: 966 mg/m ³ , 200 ppm Long-term value: 724 mg/m ³ , 150 ppm
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108-65-6 2-methoxy-1-methylethyl acetate

WEL (Great Britain)	Short-term value: 548 mg/m ³ , 100 ppm Long-term value: 274 mg/m ³ , 50 ppm
IOELV (EU)	Sk Short-term value: 550 mg/m ³ , 100 ppm Long-term value: 275 mg/m ³ , 50 ppm Skin

822-06-0 hexamethylene-di-isocyanate

WEL (Great Britain)	Short-term value: 0.07 mg/m ³ Long-term value: 0.02 mg/m ³ Sen; as -NCO
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- **Additional information:** The lists valid during the making were used as basis.
- **Personal protective equipment:**
- **General protective and hygienic measures:**
 - Keep away from foodstuffs, beverages and feed.
 - Immediately remove all soiled and contaminated clothing

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Do not eat, drink, smoke or sniff while working.

Do not inhale gases / fumes / aerosols.

Avoid contact with the eyes and skin.

Wash hands before breaks and at the end of work.

Use skin protection cream for skin protection.

· **Respiratory protection:**

No special procedures required if all workplace limit values are continuously respected.

· **Protection of hands:**



Protective gloves

To avoid skin problems reduce the wearing of gloves to the required minimum.

Check the permeability prior to each renewed use of the glove.

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

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

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

· **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.

· **Penetration time of glove material**

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

9 Physical and chemical properties

· **General Information**

Form:	Fluid
Colour:	Colourless
Odour:	Characteristic

· **Change in condition**

Melting point/Melting range: Undetermined.

Boiling point/Boiling range: Undetermined.

· **Flash point:** > 23°C

· **Ignition temperature:** 315°C

· **Self-igniting:** Product is not selfigniting.

· **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

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- | | |
|--|-------------------|
| · Explosion limits: | |
| Lower: | 1.5 Vol % |
| Upper: | 10.8 Vol % |
| · Density at 20°C: ~ 1 g/cm ³ | |
| · Solubility in / Miscibility with water: Not miscible or difficult to mix. | |
| · Viscosity: | |
| Kinematic at 20°C: | < 40 s (ISO 6 mm) |

10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Dangerous reactions**
Reacts with strong oxidizing agents.
Used empty containers may contain product gases which form explosive mixtures with air.
Forms flammable gases/fumes.
- **Dangerous decomposition products:**
Nitrogen oxides (NO_x)
Carbon monoxide and carbon dioxide

11 Toxicological information

- **Acute toxicity:**

- **LD/LC50 values relevant for classification:**

123-86-4 n-butyl acetate

Oral	LD50	13100 mg/kg (rat)
Dermal	LD50	>5000 mg/kg (rabbit)
Inhalative	LC50/4 h	>21.0 mg/l (rat)

822-06-0 hexamethylene-di-isocyanate

Oral	LD50	738 mg/kg (rat)
Dermal	LD50	593 mg/kg (rat)

- **Primary irritant effect:**
- **on the skin:** Repeated exposure may cause skin dryness or cracking.
- **on the eye:** Irritating effect.
- **Additional toxicological information:**
Vapours may cause drowsiness and dizziness.
Has a narcotizing effect.
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:
Irritant
- **Sensitisation** May cause sensitisation by skin contact.

12 Ecological information

- **General notes:**
Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water
Do not allow product to reach ground water, water course or sewage system.

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Danger to drinking water if even small quantities leak into the ground.

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13 Disposal considerations

- **Product:**
- **Recommendation**
Must not be disposed together with household garbage. Do not allow product to reach sewage system. Disposal must be made according to official regulations.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

· Land transport ADR/RID (cross-border)



- **ADR/RID class:** 3 Flammable liquids.
- **Danger code (Kemler):** 30
- **UN-Number:** 1263
- **Packaging group:** III
- **Hazard label:** 3
- **Description of goods:** 1263 PAINT RELATED MATERIAL



· Maritime transport IMDG:



- **IMDG Class:** 3
- **UN Number:** 1263
- **Label:** 3
- **Packaging group:** III
- **EMS Number:** F-E,S-E
- **Proper shipping name:** PAINT RELATED MATERIAL

· Air transport ICAO-TI and IATA-DGR:



- **ICAO/IATA Class:** 3
- **UN/ID Number:** 1263
- **Label:** 3
- **Packaging group:** III
- **Proper shipping name:** PAINT RELATED MATERIAL

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15 Regulatory information

· **Labelling according to EU guidelines:**

The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.

· **Code letter and hazard designation of product:**



Xi Irritant

The HSNO Approval Number for this Group Standard is HSR002662

· **Hazard-determining components of labelling:**

Hexamethylene diisocyanate homopolymer

· **Risk phrases:**

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

· **Safety phrases:**

- 2 Keep out of the reach of children.
- 16 Keep away from sources of ignition - No smoking.
- 23 Do not breathe fumes/aerosol.
- 24/25 Avoid contact with skin and eyes.
- 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- 37 Wear suitable gloves.
- 46 If swallowed, seek medical advice immediately and show this container or label.
- 51 Use only in well-ventilated areas.

· **Special labelling of certain preparations:**

Contains isocyanates. See information supplied by the manufacturer

· **National regulations:**

· **Information about limitation of use:** Employment restrictions concerning juveniles must be observed.

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 R-phrases**

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

· **Department issuing MSDS:** Abteilung Labor

· **Contact:** Frau S. Schaller