

**WS RAPIDE WINDSCREEN ADHESIVE**

**SECTION 1: SUBSTANCE/MIXTURE IDENTIFICATION AND MANUFACTURER/SUPPLIER IDENTIFICATION**

**1.1. Product identification**

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

One component windscreen adhesive to be used in automotive industry.

**1.3. Data of the safety data sheet supplier**

**Przedsiębiorstwo RANAL Sp. z o.o.**

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**Person responsible for the safety data sheet**

[ranal@ranal.pl](mailto:ranal@ranal.pl)

**1.4. Emergency telephone**

+48 34 329 45 03 (from 8.00 am to 03.00 pm)

**SECTION 2: HAZARDS IDENTIFICATION**

**2.1. Classification of the substance or mixture**

The mixture was classified as dangerous according to current regulation EC 1272/2008 (CLP) (and following amendments and annexes). Product requires safety data sheet according to Regulation EC 1907/2006 and the following amendments. All the other additional information concerning health and/or environmental hazards to be found in sections 11. and 12. of this Material Safety Data Sheet.

**Classification 1272/2008/EC:**

Resp. Sens. 1      H334  
Skin Sens. 1      H317

Full description of hazards to be found in section 16 of this sheet.

**2.2. Label elements**

Hazard labeling according to Regulation 1272/2008 EC and following amendments and annexes.

Pictograms:



Warning word: **Danger.**

Hazard statements:

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
H317 May cause an allergic skin reaction.  
EUH204 Contains isocyanates. May produce an allergic reaction.

Precautionary statements

P261 Avoid breathing dust/fumes/gas/mist/vapours/spray.  
P280 Wear protective gloves / protective clothing / eye protection / face protection.  
P285 In case of insufficient ventilation use individual respiratory protection.  
P321 Specific treatment (see on this label).  
P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER/doctor.  
P501 Dispose of contents/container to an entity authorized for combustion.

**2.3. Other hazards**

No data.

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

**3.1. Substances**

Not applicable.

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**3.2. Mixtures**

**Product identification**

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Substance name  
Concentration [% weight]  
Identification numbers  
Classification and labelling

**Hexamethylen-1,6-diisocyanat homopolymer**

4.5-5%  
EC: 500-060-2  
CAS: 28182-81-2  
Index no: -  
Registration no: -

Classification 1272/2008/EC:  
Acute Tox. 4; H332;  
STOT SE 3; H335;  
Skin Sens. 1; H317.

**4,4'-Diphenylmethane diisocyanate**

0.9-1%  
EC: 201-966-0  
CAS: 101-68-8  
Index no: 615-005-00-9  
Registration no: -

Classification 1272/2008/EC:  
Carc. 2; H361;  
Acute Tox. 4; H332;  
STOR RE 2; H373;  
Eye Irrit. 2; H319;  
Skin Irrit.2; H315;  
STOT SE 3; H335;  
Resp. Sens.1; H334;  
Skin Sens. 1; H317, Nota 2C.

Full text of hazard symbols and H phrases provided in section 16.

**SECTION 4: FIRST AID MEASURES**

**4.1. Description of first aid measures**

**EYES:** Remove contact lenses, if present. Immediately rinse wide opened eyes with plenty of water for at least 30-60 minutes, consult a doctor.

**SKIN:** Take off contaminated clothing. Rinse contaminated skin with plenty of lukewarm water. Consult a doctor. Wash contaminated clothes before using them again.

**INGEESTION:** Administer as much water as possible. Consult a doctor. Do not induce vomiting and do not administer anything if not explicitly recommended by a doctor.

**INHALATION:** Consult a doctor immediately. Take the victim outside to the fresh air, ensure quiet surrounding and in case of no breath perform artificial respiration.

**4.2. Most important symptoms both acute and delayed**

See section 11 of the Material Safety Data Sheet.

**4.3. Indications of any immediate medical attention and special treatment needed**

No data available.

**SECTION 5: FIREFIGHTING MEASURES**

**5.1. Extinguishing media**

RECOMMENDED EXTINGUISHING MEDIA: , powder, foam, carbon dioxide.

UNRECOMMENDED EXTINGUISHING MEDIA: -

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**5.2. Special hazards arising from the substance or mixture**

Fire exposure hazards: avoid breathing vapours released during product combustion.

**5.3. Advice for firefighters**

General information:

Use water jets to cool the containers to avoid breakdown of the product and release of potentially hazardous substances. Fire fighters should be equipped with full set of protective clothing. Collect fire sewage to prevent the leakage into sewage system. Dispose of contaminated water according to current regulations.

Special protective equipment for fire fighters:

Standard protective clothing, fire set (BS EN 469) and footwear (HO specification A29 and A30) in connection with self contained breathing apparatus (BS EN 137).

**SECTION 6: ACCIDENTAL RELEASE MEASURES**

**6.1. Personal precautions, protective equipment and emergency measures**

If there is no risk, close the leakage.

Wear protective clothing and equipment (including personal protective measures mentioned in section 8 of the sheet) to prevent contamination of skin, eyes and personal clothes. These measures apply to rescue team and all persons taking part in the operation.

**6.2. Environmental precautions**

Prevent leakage into sewage system, ground and surface waters and soil.

**6.3. Methods and materials for containment and cleaning up.**

Stop the leakage (close the liquid inflow, seal), place damaged container in an emergency container, remove the liquid mechanically and place it in an emergency container. Verify compatibility of emergency containers in section 10. Collect the remains with the use of a universal binding agent.

Make sure that the leakage area is well ventilated. Check incompatibility of the containers in section 7. Contaminated product should be disposed of according to applicable law (see section 13).

**6.4. Reference to other sections**

Personal protection measures – see section 8 of the Material Safety Data Sheet.

Disposal considerations – see section 13 of the Material Safety Data Sheet.

**SECTION 7: HANDLING AND STORAGE OF SUBSTANCES AND MIXTURES**

**7.1. Precautions for safe handling**

Before using the product get acquainted with all the other sections of the Safety Data Sheet. Do not smoke, do not eat or drink when using the product. Wash hands after use. Prevent leakage into the environment. Remove contaminated clothes and personal protective measures before entering any areas of food consumption.

**7.2. Conditions for safe storage including any incompatibilities**

Store in tightly sealed, original, well labeled containers. Store in cool, well ventilated rooms away from direct sunlight. Keep away from incompatible materials, see section 10.

**7.3. Special end use(s)**

No data available.

**SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTION MEASURES**

**8.1. Control parameters**

4,4'-Diphenylmethane diisocyanate

Threshold values:

Type	Country	TWA / 8 hours mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	ppm
OEL	IRL	0,02		0,07	
YTV-ACGIH		0,51	0,005		

TWA – average time weighted

STEL – short time exposure

OEL – permissible value of occupational exposure

TLV – threshold limit values according to ACGIH (USA)

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PN-EN 482:2009 Workplace Atmospheres – General Requirements for the Performance of Procedures for the Measurement of Chemical Agents.

PN-EN-689: 2002. Workplace Atmospheres – Guidance for the Assessment of Exposure by Inhalation to Chemical Agents for Comparison with Limit Values and Measurement Strategy.

PN Z-04008-7:2002 Air Cleanness Protection - Sampling - Principles of Sampling Air in the Working Environment and Interpreting the Results.

PN-78 / Z-04116.01 Air cleanliness protection - Testing of xylene content - Determination of xylene at workplaces using gas chromatography with sample enrichment

**8.2. Exposure control**

As the use of suitable technical equipment has to take priority over personal protective equipment, make sure that the workplace is well ventilated. Before choosing personal protective equipment consult a chemical products supplier. Personal protective equipment needs to be CE labeled as confirmation that it corresponds to all current legal regulations. Ensure emergency shower with eye cleaning stand.

**HANDS PROTECTION:**

Use protective gloves category III (according to EN 374). When choosing the material, consider the compatibility, breakdown point and penetration. Before use check resistance of the gloves to chemical factors. Time of use depends on time and method of works with chemical product.

**SKIN PROTECTION:**

Suitable protective clothing with long sleeves and professional protective shoes of II category (according to Directive 89/686/EEC and standards: EN ISO 20344). Wash body with water and soap after taking off protective clothing.

**EYES PROTECTION:**

Tight protective glasses (according to EN166).

**RESPIRATORY TRACT PROTECTION:**

In case of exceeding any threshold value of one or more substances included in the product, it is recommended to use a mask with A type filter for organic vapour of class (1, 2 or 3). It should be chosen depending on concentration limit at time of use (standard EN 14387). In case of presence of gases or vapours and/or different types of gases/vapours containing particles (spray, fume, mist, etc.) it is necessary to use combined filters. Devices for respiratory protection are necessary if the technical measures used are not sufficient to reduce the level of exposure. Protection provided by the masks is limited. If the substance used is odourless or its odour threshold is higher than the corresponding one.

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

**9.1. Information on basic physical and chemical properties**

Physical state	Paste
Colour	Black
Odour	Characteristic
Odour threshold	No data
pH	No data
Melting/freezing point	No data
Initial boiling point	No data
Boiling range	No data
Flash point	>100 0°C
Breakdown point	No data
Evaporation rate	No data
Flammability (solid, gas)	No data
Bottom ignition point	No data
Top ignition point	No data
Bottom explosion limit	No data
Top explosion limit	No data
Vapour pressure	No data
Vapour density	No data
Relative density	(about 1.36 kg/l )
Solubility	No data
n-octanol/water partition coefficient	No data
Autoignition point	No data
Breakdown point	No data
Viscosity	150000-250000cps
Explosive properties	No data
Oxidizing properties	No data

**9.2. Other information**

VOC (Regulation 2010/75/EC)	0
VOC (volatile carbon)	0

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**SECTION 10: STABILITY AND REACTIVITY**

**10.1. Reactivity**

The product is not reactive under normal conditions.

The 4,4'-Diphenylmethane diisocyanate decomposes at 274°C. In contact with water, carbon dioxide and insoluble polymer are released. Recovered wet material has to be stored in open containers.

**10.2. Chemical stability**

Product stabile under normal conditions.

**10.3. Possibility of hazardous reactions**

Under normal conditions of storage and use there are no hazardous reactions expected.

**10.4. Conditions to be avoided**

No special recommendations. Apply general safety recommendations for the use of chemicals.

**10.5. Incompatible materials**

No data.

**10.6. Hazardous decomposition products**

4,4'-Diphenylmethane diisocyanate: nitrogen oxides, carbon oxides, hydrogen cyanide.

**SECTION 11: TOXICOLOGICAL INFORMATION**

**11.1. Information on toxicological effects**

No experimental data on the preparation. The assessment was based on data on hazardous components included in the preparation.

In order to estimate the degree of toxicity of the product, the concentration of individual harmful substances indicated in Section 3 of the sheet should be taken into account.

Inhalation of the product causes sensitization which may lead to a series of inflammatory conditions, most often obstructive, affecting respiratory system. Sometimes an allergic reaction comes up with rhinitis and asthma in the exposed person. Respiratory damage depends on inhaled quantity, that is concentration of the product in the working environment and exposure time.

In contact with skin the product causes sensitization (dermatitis). The dermatitis initially appears in areas of frequent contact with sensitizing agent. Skin lesions may include: erythema, swelling, papules, blisters, pimples, scurvy, ulceration and effusions depending on the phase of disease and infected skin area. In acute phase prevail such symptoms as: erythema, swelling and effusions. In chronic phase the most common are: skin exfoliation, dryness, ulcerations, skin protrusion.

4,4'-Diphenylmethane diisocyanate: risk of sensitization even at concentrations lower than TLV (threshold limit values) when sprayed.

**4,4'-DIPHENYLMETHANE DIISOCYANATE**

LD50 (rat, ingestion) >2000 mg/kg

LD50 (rabbit, skin) >9400 mg/kg

LC50 (rat, inhalation) 2,24 mg/l

**SECTION 12: ECOLOGICAL INFORMATION**

**12.1. Toxicity**

**4,4'-DIPHENYLMETHANE DIISOCYANATE**

LC50 – for fish

>1000 mg/l/96 hours

Chronic toxicity for algae and water plants NOEC (*Desmodesmus subspicatus*)

>1640 mg/l

**12.2. Persistence and degradability**

No data.

**12.3. Bioaccumulative potential**

No data.

**12.4. Mobility in soil**

No data.

**12.5. Results of PBT and vPvB assesment**

On the basis of available data – does not contain PBT or vPvB in quantities higher than 0.1%.

**12.6. Other hazardous effects**

No data.

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**SECTION 13: DISPOSAL CONSIDERATIONS****13.1. Waste treatment methods**

Reuse if possible. The remains should be treated as harmful waste. The hazard of waste should be classified according to regulations in force. Disposal must be performed by authorized entities and according to current regulations. Avoid littering, contamination of soil, sewage and watercourses.

**CONTAMINATED CONTAINERS:**

A contaminated container should be delivered to an entity authorized to collect, recover or dispose of wastes .

**SECTION 14: TRANSPORT INFORMATION**

The product is not regarded as dangerous according to the provisions of ADR (European Agreement concerning the International Carriage of Dangerous Goods by Road) and RID (Regulations concerning the International Carriage of Dangerous Goods by Rail), IMDG (International Maritime Dangerous Goods Code- transport by sea), and IATA (International Air Transport Association)

**14.1. – 14.7.**

Not applicable.

**SECTION 15: REGULATORY INFORMATION****15.1. Safety, health and environmental regulations / legislations specific for the substance or mixture**

- Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC. Official Journal of EU L 136 of May 29 2007. Official Journal of EU L 304 of November 22 2007, Official Journal of EU L268 of October 09 2008, Official Journal of EU L 46 of February 17 2009, Official Journal of EU L164 of June 26 2009, Official Journal of EU L133/1 of May 31 2010 with later amendments.

- Commission Regulation (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (Official Journal of EU L 353 of December 31 2008); Official Journal of EU L 235 of September 5 2009, Official Journal of EU L 83 of March 30 2011, Official Journal of EU L 179 of July 11 2012, Official Journal of EU L 149 of June 1 2013, Official Journal of EU L 261 of October 3 2013, Official Journal of EU L 167 of June 2014, Official Journal of EU L 197 of July 25 2015.

**15.2. Chemical safety assessment**

Not performed.

**SECTION 16: OTHER INFORMATION****Full text of the phrases identifying the types of hazards mentioned in sections 2-3:**

Carc. 2	Carcinogenicity, cat.2
Acute Tox. 4	Acute toxicity cat. 4
STOT RE 2	Specific target organ toxicity – repeated exposure (cat.2)
Eye Irrit. 2	Eye irritation, cat.2
Skin Irrit. 2	Skin irritation, cat.2
STOT SE 3	Specific target organ toxicity – single exposure (cat.3)
Resp. Sens. 1	Respiratory sensitization, cat.1
Skin Sens. 1	Skin sensitization, cat.1
H351	Suspected of causing cancer.
H332	Harmful if inhaled.
H373	May cause damage to organs.
H319	Causes serious eye irritation.
H315	Causes skin irritation (category 2)
H335	May cause respiratory irritation.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317	May cause an allergic skin reaction.
EUH204	Contains isocyanates. May produce an allergic reaction.

**Explanations of the abbreviations and acronyms used in the Material Safety Data Sheet:**

**CAS No** – numerical symbol ascribed to a chemical substance by the American organization Chemical Abstracts Service (CAS).

**EC No** – a number ascribed to a chemical substance in the European List of Notified Chemical Substances (ELINCS), or a number in the European Inventory of Existing Chemical Substances mentioned in "No-longer polymers" publication (EINECS)

**MPC** – maximum permissible concentration of health hazardous substances in the work place.

**MPIC** – maximum permissible instantaneous concentration.

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**MPCC** – maximum permissible ceiling concentration.

**PCB** – permissible concentration in biological material

**UN number** – four-digit identification number of a substance, preparation or product pursuant to UN model regulations

**GENERAL BIBLIOGRAPHY:**

1. Directive 1999/45/EC and later amendments
2. Directive 67/548/EEC and later amendments
3. Regulation (EC) 1907/2006 (REACH) of the European Parliament
4. Regulation (EC) 1272/2008 (CLP) of the European Parliament
5. Regulation (EC) 790/2009 of the European Parliament
6. Regulation (EC) 453/2010 of the European Parliament
7. Regulation (EC) 286/2011 of the European Parliament
8. Regulation (EC) 618/2012 of the European Parliament
9. Indeks Merck – 10 edition
10. Handling Chemical Safety
11. Niosh – Register of Toxic Effects of Chemical Substances
12. INRS – Fiche Toxicologique
13. Patty – Industrial Hygiene and Toxicology
14. N.I. Sax – Dangerous properties of Industrial Materials -7, edition 1989
15. ECHA website

**Information for users:**

Information included in this Safety Data Sheet is based on our knowledge we have at the time of its last version. The users should evaluate the information depending on specific use of the product.

This Sheet does not constitute warranty for the specific product characteristic.

When using the product apply current recommendations and regulations concerning hygiene and safety of work.

The producer is not responsible for any improper use of the product.

Personnel using the product should get acquainted with the rules of work with chemical substances.

**Changes in relation to the previous version:** General update.

**Sheet number:** 1I4T0818V4