

Safety Data Sheet

According to Regulation (EU) 2015/830

Date of issue: 06.03.2017

Revision date: 07.04.2017

Supersedes: 06.03.2017

Version: 1.0

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

1.1. Product identifier

Product form : Mixture
Trade name : WHITECHEM P-MDI/RPS
Product group : Trade product

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

1.2.1. Relevant identified uses

Intended for general public

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

AKDE KİMYA END. SAN. ve TİC. LTD. ŞTİ.
Yeşilbayır mahallesi Şimşir sokak No:20
34555 İSTANBUL - TURKEY
T +90 2127710622 - F +90 2127710624
info@akde.net - www.akde.net / www.whitechem.com.tr

1.4. Emergency telephone number

Emergency number : +90 2127711371 (9:00 am - 17:00 pm GMT+2)

Country	Organisation/Company	Address	Emergency number	Comment
United Kingdom	National Poisons Information Service (Newcastle Centre) Regional Drugs and Therapeutics Centre	Claremont Place Newcastle-upon-Tyne NE1 4LP Newcastle	0844 892 0111 (UK only, Monday to Friday, 08.00 to 18.00 hours)	

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Acute toxicity (inhalation:vapour) Category 4	H332	Calculation method
Skin corrosion/irritation, Category 2	H315	Calculation method
Serious eye damage/eye irritation, Category 2	H319	Calculation method
Sensitisation — Respiratory, Category 1	H334	Calculation method
Sensitisation — Skin, Category 1	H317	Calculation method
Carcinogenicity, Category 2	H351	Calculation method
Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation	H335	Calculation method
Specific target organ toxicity — Repeated exposure, Category 2	H373	Calculation method

Full text of hazard classes and H-statements : see section 16

Adverse physicochemical, human health and environmental effects

Suspected of causing cancer. May cause damage to organs through prolonged or repeated exposure. Harmful if inhaled. May cause respiratory irritation. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

2.2. Label elements

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

Hazard pictograms (CLP)



Signal word (CLP)

: Danger

Hazardous ingredients

: Isocyanic acid, polymethylenepolyphenylene ester; 4,4'-methylenediphenyl diisocyanate, diphenylmethane-4,4'-diisocyanate

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Hazard statements (CLP)	: H315 - Causes skin irritation H317 - May cause an allergic skin reaction H319 - Causes serious eye irritation H332 - Harmful if inhaled H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled H335 - May cause respiratory irritation H351 - Suspected of causing cancer H373 - May cause damage to organs through prolonged or repeated exposure
Precautionary statements (CLP)	: P102 - Keep out of reach of children P260 - Do not breathe fume, mist, gas, vapours P280 - Wear eye protection, face protection, protective clothing, protective gloves P284 - [In case of inadequate ventilation] wear respiratory protection P302+P352 - IF ON SKIN: Wash with plenty of water P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing P342+P311 - If experiencing respiratory symptoms: Call a doctor, a POISON CENTER P403+P233 - Store in a well-ventilated place. Keep container tightly closed P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation
Security closing plug for children	: Not applicable
Tactile warning	: Applicable

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Isocyanic acid, polymethylenepolyphenylene ester	(CAS No) 9016-87-9 (REACH-no) 01-2119457014-47	50 - 70	Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Resp. Sens. 1, H334 Skin Sens. 1, H317 Carc. 2, H351 STOT SE 3, H335 STOT RE 2, H373
4,4'-methylenediphenyl diisocyanate, diphenylmethane-4,4'-diisocyanate (Note C)(Note 2)	(CAS No) 101-68-8 (EC no) 202-966-0 (EC index no) 615-005-00-9 (REACH-no) 01-211945701447-0000	30 - 50	Acute Tox. 4 (Inhalation:dust,mist), H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Resp. Sens. 1, H334 Skin Sens. 1, H317 Carc. 2, H351 STOT SE 3, H335 STOT RE 2, H373

Specific concentration limits:

Name	Product identifier	Specific concentration limits
4,4'-methylenediphenyl diisocyanate, diphenylmethane-4,4'-diisocyanate	(CAS No) 101-68-8 (EC no) 202-966-0 (EC index no) 615-005-00-9 (REACH-no) 01-211945701447-0000	(C >= 0.1) Resp. Sens. 1, H334 (C >= 5) Eye Irrit. 2, H319 (C >= 5) Skin Irrit. 2, H315 (C >= 5) STOT SE 3, H335

Note 2 : The concentration of isocyanate stated is the percentage by weight of the free monomer calculated with reference to the total weight of the mixture.

Note C : Some organic substances may be marketed either in a specific isomeric form or as a mixture of several isomers. In this case the supplier must state on the label whether the substance is a specific isomer or a mixture of isomers.

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : IF exposed or concerned: Get medical advice/attention. Call a poison center or a doctor if you feel unwell.

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First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. Call a poison center or a doctor if you feel unwell.
First-aid measures after skin contact	: Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries after inhalation	: May cause respiratory irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Symptoms/injuries after skin contact	: Irritation. May cause an allergic skin reaction.
Symptoms/injuries after eye contact	: Eye irritation.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Water spray. Dry powder. Foam. Carbon dioxide.
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5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire	: Toxic fumes may be released.
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5.3. Advice for firefighters

Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures	: Ventilate spillage area. Do not breathe dust/fume/gas/mist/vapours/spray. Avoid contact with skin and eyes.
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6.1.2. For emergency responders

Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
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6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up	: Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.
Other information	: Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear personal protective equipment. Do not breathe dust/fume/gas/mist/vapours/spray. Use only outdoors or in a well-ventilated area. Avoid contact with skin and eyes.
Hygiene measures	: Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	: Store locked up. Store in a well-ventilated place. Keep container tightly closed. Keep cool.
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7.3. Specific end use(s)

No additional information available

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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

WHITECHEM P-MDI/RPS		
Germany	Local name	pMDI(alsMDIberechnet)
Germany	TRGS 900 Occupational exposure limit value (mg/m ³)	0.05 mg/m ³
Germany	Remark (TRGS 900)	DFG,H,Sah,Y,12
4,4'-methylenediphenyl diisocyanate, diphenylmethane-4,4'-diisocyanate (101-68-8)		
Austria	Local name	Diphenylmethan-4,4'-diisocyanat
Austria	MAK (mg/m ³)	0.05 mg/m ³
Austria	MAK (ppm)	0.005 ppm
Austria	MAK Short time value (mg/m ³)	0.1 mg/m ³
Austria	MAK Short time value (ppm)	0.01 ppm
Austria	Remark (AT)	Sah
Belgium	Local name	4,4'-Diisocyanate de diphénylméthane (MDI)
Belgium	Limit value (mg/m ³)	0.052 mg/m ³
Belgium	Limit value (ppm)	0.005 ppm
Czech Republic	Local name	Difenylmethan-4,4'-diisokyanát
Czech Republic	Expoziční limity (PEL) (mg/m ³)	0.05 mg/m ³
Czech Republic	Expoziční limity (PEL) (ppm)	0.005 ppm
Czech Republic	Expoziční limity (NPK-P) (mg/m ³)	0.1 mg/m ³
Czech Republic	Expoziční limity (NPK-P) (ppm)	0.01 ppm
Czech Republic	Remark (CZ)	S
Denmark	Local name	Diphenylmethan-4,4'-diisocyanat
Denmark	Grænseværdie (langvarig) (mg/m ³)	0.05 mg/m ³
Denmark	Grænseværdie (langvarig) (ppm)	0.005 ppm
Estonia	Local name	4,4'-metüleendifenüül-diisotsüanaat (fenüülisotsüanaat)
Estonia	OEL TWA (mg/m ³)	0.05 mg/m ³
Estonia	OEL TWA (ppm)	0.005 ppm
Estonia	OEL STEL (ppm)	0.1 ppm
France	Local name	4,4'-Diisocyanate de diphénylméthane (3)
France	VME (mg/m ³)	0.1 mg/m ³
France	VME (ppm)	0.01 ppm
France	VLE (mg/m ³)	0.2 mg/m ³
France	VLE (ppm)	0.02 ppm
Germany	Local name	4,4'-Methylenediphenyldiisocyanat
Germany	TRGS 900 Occupational exposure limit value (mg/m ³)	0.05 mg/m ³
Germany	Remark (TRGS 900)	DFG,11,12,Sa,Y
Greece	OEL TWA (mg/m ³)	0.2 mg/m ³
Greece	OEL TWA (ppm)	0.02 ppm
Greece	OEL STEL (mg/m ³)	0.2 mg/m ³
Greece	OEL STEL (ppm)	0.02 ppm
Hungary	Local name	difenilmetán-4,4'-diizocianát (MDI)
Hungary	AK-érték	0.05 mg/m ³
Hungary	CK-érték	0.05 mg/m ³
Hungary	Megjegyzések (HU)	i, sz; l.
Ireland	Local name	4,4'-Methylene-diphenyl diisocyanate (as —NCO)
Ireland	OEL (8 hours ref) (mg/m ³)	0.02 mg/m ³
Ireland	OEL (15 min ref) (mg/m ³)	0.07 mg/m ³
Ireland	Notes (IE)	Sen
Lithuania	Local name	Metileno bisfenilizocianatas (MDI)
Lithuania	IPRV (mg/m ³)	0.05 mg/m ³
Lithuania	IPRV (ppm)	0.005 ppm
Lithuania	NRV (mg/m ³)	0.1 mg/m ³
Lithuania	NRV (ppm)	0.01 ppm
Lithuania	Remark (LT)	J
Poland	Local name	Metylenobis(fenylizocyanian (diizocyanian 4,4'-metylenodifenylu)
Poland	NDS (mg/m ³)	0.03 mg/m ³

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Portugal	Local name	Metilenodifenilisocianato (MDI)
Portugal	OEL TWA (ppm)	0.005 ppm
Slovenia	Local name	difenilmetan-4,4'-diizocianat (4,4'-metilendifenil diizocianat)
Slovenia	OEL TWA (mg/m ³)	0.05 mg/m ³
Slovenia	OEL STEL (mg/m ³)	0.05 mg/m ³
Spain	Local name	Diisocianato de 4,4'-difenilmetano (MDI)
Spain	VLA-ED (mg/m ³)	0.052 mg/m ³
Spain	VLA-ED (ppm)	0.005 ppm
Spain	Notes	Sen (Sensibilizante. Véase Apartado 6.)
Sweden	Local name	4,4'-Methylenediphenyl diisocyanate
Sweden	nivågränsvärde (NVG) (mg/m ³)	0.03 mg/m ³
Sweden	nivågränsvärde (NVG) (ppm)	0.002 ppm
Sweden	takgränsvärde (TGV) (mg/m ³)	0.05 mg/m ³
Sweden	takgränsvärde (TGV) (ppm)	0.005 ppm
Norway	Local name	Difenylmetan-4,4-diisocyanat (MDI)
Norway	Grenseverdier (AN) (mg/m ³)	0.05 mg/m ³
Norway	Grenseverdier (AN) (ppm)	0.005 ppm
Norway	Merknader (NO)	A
Australia	Local name	Methylene bisphenyl isocyanate (MDI)
Australia	TWA (mg/m ³)	0.02 mg/m ³
Australia	STEL (mg/m ³)	0.07 mg/m ³
USA - ACGIH	Local name	Methylene bisphenyl isocyanate (MDI)
USA - ACGIH	ACGIH TWA (ppm)	0.01 ppm
USA - ACGIH	Remark (ACGIH)	Resp sens

8.2. Exposure controls

Appropriate engineering controls	: Ensure good ventilation of the work station.
Hand protection	: Protective gloves
Eye protection	: Safety glasses
Skin and body protection	: Wear suitable protective clothing
Respiratory protection	: Wear respiratory protection
Environmental exposure controls	: Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Liquid.
Colour	: Dark brown.
Odour	: Characteristic.
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: 200 °C
Flash point	: 230 °C
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Not applicable
Vapour pressure	: 0.00001 mm Hg
Relative vapour density at 20 °C	: No data available
Relative density	: 1.22 - 1.25 g/ml
Solubility	: No data available

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Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: 220 - 250 mPa.s
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

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 toxicological effects

Acute toxicity : Inhalation:vapour: Harmful if inhaled.

ATE CLP (vapours)	15.714 mg/l/4h
LD50 (rat, oral)	>10000 mg/kg

Skin corrosion/irritation : Causes skin irritation.

Serious eye damage/irritation : Causes serious eye irritation.

Eye (rabbit)	100 mg
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Respiratory or skin sensitisation : May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.

Germ cell mutagenicity : Not classified

Carcinogenicity : Suspected of causing cancer.

Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: May cause respiratory irritation.

Specific target organ toxicity (repeated exposure) : May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard : Not classified

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.

Environmental Toxicity Test Data:

LC50: > 500mg/l/24h (zebrafish, static) (MDI)

EC50: > 500mg/l/24h (daphnia) (MDI)

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available



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12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

UN-No. (ADR) : Not applicable
UN-No. (IMDG) : Not applicable
UN-No. (IATA) : Not applicable
UN-No. (ADN) : Not applicable
UN-No. (RID) : Not applicable

14.2. UN proper shipping name

Proper Shipping Name (ADR) : Not applicable
Proper Shipping Name (IMDG) : Not applicable
Proper Shipping Name (IATA) : Not applicable
Proper Shipping Name (ADN) : Not applicable
Proper Shipping Name (RID) : Not applicable

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR) : Not applicable

IMDG

Transport hazard class(es) (IMDG) : Not applicable

IATA

Transport hazard class(es) (IATA) : Not applicable

ADN

Transport hazard class(es) (ADN) : Not applicable

RID

Transport hazard class(es) (RID) : Not applicable

14.4. Packing group

Packing group (ADR) : Not applicable
Packing group (IMDG) : Not applicable
Packing group (IATA) : Not applicable
Packing group (ADN) : Not applicable
Packing group (RID) : Not applicable

14.5. Environmental hazards

Dangerous for the environment : No
Marine pollutant : No
Other information : No supplementary information available

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14.6. Special precautions for user

- Overland transport

Not applicable

- Transport by sea

Not applicable

- Air transport

Not applicable

- Inland waterway transport

Not applicable

- Rail transport

Not applicable

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

15.1.2. National regulations

Germany

VwVwS Annex reference : Water hazard class (WGK) 1, low hazard to waters (Classification according to VwVwS, Annex 4)

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

Netherlands

SZW-lijst van kankerverwekkende stoffen : None of the components are listed

SZW-lijst van mutagene stoffen : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : None of the components are listed

Denmark

Recommendations Danish Regulation : Young people below the age of 18 years are not allowed to use the product
Pregnant/breastfeeding women working with the product must not be in direct contact with the product

The requirements from the Danish Working Environment Authorities regarding work with carcinogens must be followed during use and disposal

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Full text of H- and EUH-statements:	
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
Acute Tox. 4 (Inhalation:vapour)	Acute toxicity (inhalation:vapour) Category 4
Carc. 2	Carcinogenicity, Category 2
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2



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Resp. Sens. 1	Sensitisation — Respiratory, Category 1
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Sensitisation — Skin, Category 1
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H332	Harmful if inhaled
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
H335	May cause respiratory irritation
H351	Suspected of causing cancer
H373	May cause damage to organs through prolonged or repeated exposure

SDS EU WHITECHEM

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product