

Printing date 05.07.2018

Safety data sheet

according to 1907/2006/EC, Article 31 Version number 3

rticle 31 Revision: 20.06.2018 of the company/undertaking

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SECTION 1: Identification of the substance/mixture and of the company/undertaking 1.1 Product identifier Easy PUR plus - B Contains: diphenylmethanediisocyanate, isomeres and homologues [CAS: 9016-87-9] · Trade name: Easy PUR plus - B 1.2 Relevant identified uses of the substance or mixture and uses advised against Sector of Use SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen) · Product category PC9b Fillers, putties, plasters, modelling clay Process category PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions PROC9 Transfer of substance or mixture into small containers (dedicated filling line, including weighing) · Environmental release category ERC2 Formulation into mixture · Application of the substance / the mixture Reaction resin · 1.3 Details of the supplier of the safety data sheet · Manufacturer/Supplier: I.S.T. Innovative Sewer Technologies GmbH Rombacher Hütte 19 44795 Bochum Germany Further information obtainable from: Mr. Matthias Peppel +49 (0) 234-57988-27 info@ist-web.com · 1.4 Emergency telephone number: +49 (0)234 57988-0 (Mo.-Fr. 8:00-16:30) **SECTION 2: Hazards identification** · 2.1 Classification of the substance or mixture · Classification according to Regulation (EC) No 1272/2008 GHS08 health hazard Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled. H351 Suspected of causing cancer. Carc. 2 STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure. GHS07 Acute Tox. 4 H332 Harmful if inhaled. Skin Irrit. 2 H315 Causes skin irritation. Eye Irrit. 2 H319 Causes serious eye irritation. Skin Sens. 1 H317 May cause an allergic skin reaction. STOT SE 3 H335 May cause respiratory irritation. · 2.2 Label elements · Labelling according to Regulation (EC) No 1272/2008 The product is classified and labelled according to the CLP regulation. Hazard pictograms GHS07 GHS08 · Signal word Danger

 Hazard-determining components of labelling: diphenylmethanediisocyanate, isomeres and homologues

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(Contd. of page 1) · Hazard statements H332 Harmful if inhaled. H315 Causes skin irritation. H319 Causes serious eye irritation. H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled. H317 May cause an allergic skin reaction. H351 Suspected of causing cancer. H335 May cause respiratory irritation. H373 May cause damage to organs through prolonged or repeated exposure. Precautionary statements Avoid breathing dust/fume/gas/mist/vapours/spray. P261 P280 Wear protective gloves/protective clothing/eye protection/face protection. P302+P352 IF ON SKIN: Wash with plenty of water. IF INHALED: Remove person to fresh air and keep comfortable for breathing. P304+P340 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a POISON CENTER/doctor if you feel unwell. P312 · Additional information: EUH204 Contains isocyanates. May produce an allergic reaction. · 2.3 Other hazards People with respiratory allergy (eg asthma, chronic bronchitis) should avoid contact with the product. Symptoms of excessive exposure to the respiratory tract to the product may persist for several hours. Dust, fumes and aerosols form a fundamental threat to the respiratory tract.

- Results of PBT and vPvB assessment
- **PBT:** Not applicable.
- · **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

· 3.2 Chemical characterisation: Mixtures

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

CAS: 9016-87-9	diphenylmethanediisocyanate, isomeres and homologues	> 30%
	 Resp. Sens. 1, H334; Carc. 2, H351; STOT RE 2, H373 Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335 	
CAS: 2530-83-8 EINECS: 219-784-2 Reg.nr.: 01-2119513212	3-Glycidoxypropyltrimethoxysilane ♦ Eye Dam. 1, H318	≤1%

• Additional information: For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

· 4.1 Description of first aid measures

· General information:

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

- After inhalation:
- Supply fresh air and to be sure call for a 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.
- · After eye contact: Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- After swallowing: If symptoms persist consult doctor.
- 4.2 Most important symptoms and effects, both acute and delayed Breathing difficulty
- Coughing
- Asthma attacks
- Allergic reactions
- · 4.3 Indication of any immediate medical attention and special treatment needed
- No further relevant information available.

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SECTION 5: Firefighting measures

5.1 Extinguishing media

· Suitable extinguishing agents:

CO2, powder or water spray. Fight larger fire with alcohol resistant foam.

- Use fire extinguishing methods suitable to surrounding conditions.
- · 5.2 Special hazards arising from the substance or mixture
- Formation of toxic gases is possible during heating or in case of fire.
- · 5.3 Advice for firefighters

Every person taking part in fire-fighting must wear complete protective clothing: full face mask with breathing apparatus feeded from independent air source, safety helmet, a coverall, gloves and shoes made of PVC.

Protective equipment: Mouth respiratory protective device.

SECTION 6: Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures Use respiratory protective device against the effects of fumes/dust/aerosol. Ensure adequate ventilation
- 6.2 Environmental precautions: Do not allow to enter sewers/ surface or ground water. • 6.3 Methods and material for containment and cleaning up:
- Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Dispose contaminated material as waste according to item 13.
- Ensure adequate ventilation. 6.4 Reference to other sections
- 6.4 Reference to other sections
- See Section 7 for information on safe handling.
- See Section 8 for information on personal protection equipment.
- See Section 13 for disposal information.

SECTION 7: Handling and storage

 • 7.1 Precautions for safe handling Store in cool, dry place in tightly closed receptacles. Keep away from heat and direct sunlight. Ensure good ventilation/exhaustion at the workplace. Prevent formation of aerosols.

· Information about fire - and explosion protection: No special measures required.

- · 7.2 Conditions for safe storage, including any incompatibilities
- · Storage:
- · Requirements to be met by storerooms and receptacles: Store only in the original receptacle.
- Information about storage in one common storage facility: Store away from foodstuffs.
- Store away from oxidising agents.
- Store away from water. • Further information about storage conditions: Store in dry conditions. Keep container tightly sealed.
- Recommended storage temperature: +10 to +30°C
- · 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

· Additional information about design of technical facilities: No further data; see item 7.

- · 8.1 Control parameters
- · Ingredients with limit values that require monitoring at the workplace:

CAS: 9016-87-9 diphenylmethanediisocyanate, isomeres and homologues

WEL Short-term value: 0.07 mg/m³

Long-term value: 0.02 mg/m³ Sen; as -NCO

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· DNELs

CAS: 2530-83-8 3-Glycidoxypropyltrimethoxysilane

Dermal DNEL 21 mg/kg b.w./day (workers) (long-term exposure, systemic effect)

· PNECs

CAS: 2530-83-8 3-Glycidoxypropyltrimethoxysilane

PNEC 3.6 mg/kg dry weight (fresh water sediment)

· Additional information: The lists valid during the making were used as basis.

· 8.2 Exposure controls

Use exhaust ventilation or other control system to keep vapour concentrations in air below threshold values required. MDI can not be sensed before professional exposure limit value is exceeded. For all employed, who handle or come in contact with respiratory tract allergens, medical supervision is recommended. Employees, who suffered asthmatic type disease, bronchi inflammation or skin allergy, should not work with applying of MDI based products.

- · Personal protective equipment:
- General protective and hygienic measures:
- Keep away from foodstuffs, beverages and feed.
- Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

- Avoid contact with the eyes and skin.
- · Respiratory protection:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use selfcontained respiratory protective device.

· Protection of hands:



Protective gloves

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

Limitation and supervision of exposure into the environment

There are not any obligations to make regular measurements of emission to environment. Basic rules of machinery and devices exploitation are to be observed.

9.1 Information on basic physical and chemical properties General Information Appearance:			
Form:	Liquid		
Colour:	Brown		
Odour:	Characteristic		
Odour threshold:	Not determined.		
pH-value:	Not determined.		
Change in condition			
Melting point/freezing point:	Undetermined.		
Initial boiling point and boilin	g range: Undetermined.		



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· Flash point:	> 200 °C
· Flammability (solid, gas):	Not applicable.
· Decomposition temperature:	Not determined.
· Auto-ignition temperature:	Product is not selfigniting.
· Explosive properties:	Product does not present an explosion hazard.
· Explosion limits: Lower: Upper:	Not determined. Not determined.
· Vapour pressure:	Not determined.
 Density at 20 °C: Relative density Vapour density Evaporation rate 	1.13 g/cm ³ Not determined. Not determined. Not determined.
 Solubility in / Miscibility with water: 	Not miscible or difficult to mix.
· Partition coefficient: n-octanol/water:	Not determined.
 Viscosity: Dynamic at 25 °C: Kinematic: 	170 mPas Not determined.
 Solvent content: Organic solvents: VOC (EC) 9.2 Other information 	0.0 % 0.00 % No further relevant information available.

SECTION 10: Stability and reactivity

· 10.1 Reactivity

Avoid reaction with water (humidity) – gaseous carbon dioxide is produced. The product comes into exothermic reactions with materials containing active hydroxyl groups.

- 10.2 Chemical stability The product is stable at room temperature.
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- 10.3 Possibility of hazardous reactions No dangerous reactions known.
- · 10.4 Conditions to avoid Avoid heat sources (sunbeams, heaters and the like) influence.
- 10.5 Incompatible materials: Strong oxidizing substances, water, alcohol, acids, bases.
- · 10.6 Hazardous decomposition products:
- Hydrogen cyanide (prussic acid)
- Hydrocarbons

Carbon monoxide and carbon dioxide Nitrogen oxides (NOx)

SECTION 11: Toxicological information

- · 11.1 Information on toxicological effects
- · Acute toxicity

Harmful if inhaled. · LD/LC50 values relevant for classification: ATE (Acute Toxicity Estimates) Inhalative LC50/4 h 16.6 mg/l CAS: 9016-87-9 diphenylmethanediisocyanate, isomeres and homologues LD50 > 10000 mg/kg (rat) (OECD 401) Oral > 9400 mg/kg (rabbit) (OECD 402) LD50 Dermal Inhalative LC50/4 h 11 mg/l (ATE) CAS: 2530-83-8 3-Glycidoxypropyltrimethoxysilane Oral LD50 7010 mg/kg (rat) (Contd. on page 6)

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according to 1907/2006/EC, Article 31 Printing date 05.07.2018 Version number 3 Revision: 20.06.2018 Trade name: Easy PUR plus - B (Contd. of page 5) Dermal LD50 4250 mg/kg (rabbit) Inhalative LC50/4 h > 5.3 mg/l (rat) Primary irritant effect: Skin corrosion/irritation Causes skin irritation. Serious eye damage/irritation Causes serious eye irritation. Respiratory or skin sensitisation May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction. · CMR effects (carcinogenity, mutagenicity and toxicity for reproduction) · Germ cell mutagenicity Based on available data, the classification criteria are not met. Carcinogenicity Suspected of causing cancer. · Reproductive toxicity Based on available data, the classification criteria are not met. STOT-single exposure May cause respiratory irritation. · STOT-repeated exposure May cause damage to organs through prolonged or repeated exposure. · Aspiration hazard Based on available data, the classification criteria are not met. **SECTION 12: Ecological information** · 12.1 Toxicity · Aquatic toxicity: CAS: 9016-87-9 diphenylmethanediisocyanate, isomeres and homologues > 1000 mg/l (fish) LC0/96h > 1000 mg/l (daphnia) (OECD 202 Daphnia sp. Acute Immobilisation Test) EC50/24h (static) EC50/72h (static) > 1640 mg/l (algea) (OECD 201 Growth Inhibition Test) > 1000 mg/l (fish) (OECD 203 Acute Toxicity Test) LC50/96h (static) > 100 mg/l (bacteria) (OECD 209 Respiration Inhibition Test) EC50/3h (static) NOEC/21 d (static) > 10 mg/l (daphnia) (OECD 211 Reproduction Test)

NOECr/72h (static) 1640 mg/l (algea) (OECD 201 Growth Inhibition Test) CAS: 2530-83-8 3-Glycidoxypropyltrimethoxysilane EC50/48h 473 mg/l (daphnia) LC50/96h > 100 mg/l (fish) EC50/7 d < 50 mg/l (algea) 12.2 Persistence and degradability CAS: 9016-87-9 diphenylmethanediisocyanate, isomeres and homologues Not easily bio-degradable. 0% 28 dni (sediment) · 12.3 Bioaccumulative potential CAS: 9016-87-9 diphenylmethanediisocyanate, isomeres and homologues log Pow 8.56 (sediment) BCF 200 (BCF) • 12.4 Mobility in soil No further relevant information available. · Additional ecological information: · General notes: Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system. 12.5 Results of PBT and vPvB assessment · PBT: Not applicable. · vPvB: Not applicable.

· 12.6 Other adverse effects No further relevant information available.

SECTION 13: Disposal considerations

· 13.1 Waste treatment methods

• Recommendation Must not be disposed together with household garbage. Do not allow product to reach sewage system. (Contd. on page 7)



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· European waste catalogue

08 05 01* waste isocyanates

15 01 10* packaging containing residues of or contaminated by dangerous substances

· Uncleaned packaging:

· Recommendation: Disposal must be made according to official regulations.

· 14.1 UN-Number · ADR, ADN, IMDG, IATA	not regulated	
	not regulated	
 · 14.2 UN proper shipping name · ADR · ADN, IMDG, IATA 	not regulated not regulated	
· 14.3 Transport hazard class(es)		
· ADR, ADN, IMDG, IATA · Class	not regulated	
· 14.4 Packing group · ADR, IMDG, IATA	not regulated	
· 14.5 Environmental hazards:	Not applicable.	
· 14.6 Special precautions for user	Not applicable.	
14.7 Transport in bulk according to Annex II of Marpol and the IBC Code Not applicable.		
· UN "Model Regulation":	not regulated	

SECTION 15: Regulatory information

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

1. Regulation (EC) No 1907/2006 of the European Parliament and 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 and Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67EWG, 93/105/EC and 2000 / 21/ WE (Official Gazette. EU L 136 of 29 May 2007).

2. Commission Regulation (EU) No 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (Journal of Laws. L 132 of 28 May 2015).

3. 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

· Directive 2012/18/EU

· Named dangerous substances - ANNEX I None of the ingredients is listed.

- · REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3
- · 15.2 Chemical safety assessment: A Chemical Safety Assessment has been carried out.

SECTION 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 phrases

- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H318 Causes serious eye damage.
- 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.

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H373 May cause damage to organs through prolonged or repeated exposure.

· Department issuing SDS: Product safety department.

Abbreviations and acronyms:
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
VOC: Volatile Organic Compounds (USA, EU)
DNEL: Derived No-Effect Level (REACH)
PMEC: Predicted No-Effect Coventration (REACH)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Presistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Acute Tox. 4: Acute toxicity – Category 4
Skin Kim: 2: Skrious eye damage/eye irritation – Category 1
Eye Irrit. 2: Skrious eye damage/eye irritation – Category 1
Skin Sens. 1: Skrio sensitistion – Category 1
Skin Sens. 1: Skrio sensitistion – Category 2
Stort SE 3: Specific target organ toxicity (ingle exposure) – Category 3
STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

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(Contd. of page 8) Annex: Exposure scenario · Short title of the exposure scenario · Sector of Use SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen) · Product category PC9b Fillers, putties, plasters, modelling clay · Process category PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions PROC9 Transfer of substance or mixture into small containers (dedicated filling line, including weighing) · Environmental release category ERC2 Formulation into mixture · Conditions of use · Duration and frequency 5 workdays/week. · Physical parameters · Physical state Fluid Other operational conditions · Other operational conditions affecting environmental exposure No special measures required. · Other operational conditions affecting worker exposure Avoid contact with eyes. Avoid contact with the skin. Avoid long-term or repeated skin contact. Do not breathe gas/vapour/aerosol. Other operational conditions affecting consumer exposure Keep out of the reach of children. • Other operational conditions affecting consumer exposure during the use of the product Not applicable. · Risk management measures · Worker protection · Organisational protective measures No special measures required. · Technical protective measures Ensure that suitable extractors are available on processing machines Personal protective measures Do not inhale gases / fumes / aerosols. Avoid contact with the skin. Avoid contact with the eyes. Tightly sealed goggles In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use selfcontained respiratory protective device. Protective gloves 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 · Measures for consumer protection Ensure adequate labelling. Keep locked up and out of the reach of children. · Environmental protection measures · Water No special measures required. · Disposal measures Ensure that waste is collected and contained. Disposal procedures Must not be disposed together with household garbage. Do not allow product to reach sewage system. · Waste type Partially emptied and uncleaned packaging · Exposure estimation · Consumer Not relevant for this Exposure Scenario. · Guidance for downstream users No further relevant information available.