

SAFETY DATA SHEET

In accordance with directive 1907/2006/EC, 2020/878

Version 2.0

Revision date: 15-06-2022

Page: Page 1 of 9

Print date: 19-10-2022

Trade name: Polurea 20 A | GP 020 A

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

1.1 Product identification:

Product name: Polurea 20 A | GP 020 A

UFI: E1M1-2RT1-U50Q-F342

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

Usage: Polyurethane rubber component.

Uses advised against: Not suitable for "Do-it-yourself".

1.3 Details of the supplier of the safety data sheet

Responsible distributor: ASSYST bvba / A.S.O.W. bvba
Hellegatstraat 13a
2590 Berlaar
Belgium
Tel: +32 495 50 61 14 / +32 496 83 70 27
Website: www.assyst.org / www.artsuppliesonweb.com
Email: ao@assyst.org / vera.opsommer@assyst.org

1.4 Emergency telephone number:

For Belgium:

Call the **Poison Control Center (070 245 245 - free)**, if not available: **02 264 96 30** (normal rate) or your doctor. In life-threatening situations, always call the European emergency number **112**.

NHS 24 Direct

For help from a GP, visit your GP surgery's website, use an online service to contact your GP, or call the surgery. **For urgent medical help**, use the NHS 111 online service, or **call 111** if you are unable to get help online. **For life-threatening emergencies, call 999** for an ambulance. There is more information about getting medical help on the NHS website.

SECTION 2: Hazard identification

2.1 Classification of the substance or mixture:

Classification according to Directive (EC) No 1272/2008 and its amendments.

The product is classified according to the applicable legislation.

Classification in accordance with Regulation (EC) No 1272/2008 as amended.

Health hazards

Warning, Acute Tox. 4, Harmful by inhalation.

Warning, Eye Irrit. 2, Causes serious eye irritation.

Warning, Skin Sens. 1, May cause allergic skin reaction.

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2 Label elements:

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



Hazard pictograms:

Signal word

Warning.

Hazardous ingredients which must be stated on the label

- ✓ Prepolymer based on Toluene diisocyanate (TDI)
- ✓ 4-methyl-m-phenylene diisocyanate

Indications of danger:

H332 Harmful by inhalation.

H319 Causes serious eye irritation.

H317 May cause an allergic skin reaction.

SAFETY DATA SHEET

In accordance with directive 1907/2006/EC, 2020/878

Version 2.0

Revision date: 15-06-2022

Page: Page 2 of 9

Print date: 19-10-2022

Trade name: Polurea 20 A | GP 020 A

Precautionary statements:

P261 Avoid breathing dust / fumes / gas / vapour / spray.
P280 Wear protective gloves/clothing and eye/face protection.
P312 If you feel unwell, seek medical advice.
P333 + P313 In case of skin irritation or rash: consult a doctor.
P337 + P313 If eye irritation persists: Call a doctor.
P362 + P364 Take off contaminated clothing and wash before reuse.

Special provisions:

EUH204 Contains isocyanates. May cause allergic reaction.

Special provisions according to Annex XVII of REACH and subsequent amendments:

None.

2.3 Other hazards:

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information:

The substance/mixture does not contain any components believed to have endocrine disrupting properties, according to REACH Article 57(f) or Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 on level 0.1% or higher.

Toxicological information:

The substance/mixture does not contain any components believed to have endocrine disrupting properties, according to REACH Article 57(f) or Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 on level 0.1% or higher.

SECTION 3: Composition and information on ingredients

3.2 Mixtures:

Description:

Hazardous components within the meaning of the CLP regulation and related classification:

Chemical Name	CAS No. EC No. Index No. Registration number	Layout (Regulation (EC) No 1272/008)	Concentration (%)
4-methyl-m-phenylene diisocyanate	584-84-9 209-544-5 615-006-00-4 01-2119454791-34	Acute Tox. 1 H330 Eye Irrit. 2 H319 STOT SE 3 H335 Skin Irrit. 2 H315 Resp. Sens. 1,1A, 1B H334 Skin Sens. 1,1A, 1B H317 Carc. 2 H351 Aquatic Chronic 3 H412	>= 0.25%- < 0.5%

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures:

In case of skin contact:

Immediately take off all contaminated clothing.

Areas of the body that have - or are only even suspected of having - come into contact with the product must be rinsed immediately with plenty of running water and possibly with soap.

Wash thoroughly the body (shower or bath).

Remove contaminated clothing immediately and dispose off safely.

After contact with skin, wash immediately with soap and plenty of water.

In case of eye contact:

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

SAFETY DATA SHEET

In accordance with directive 1907/2006/EC, 2020/878
Version 2.0 Revision date: 15-06-2022
Trade name: Polurea 20 A | GP 020 A

Page: Page 3 of 9
Print date: 19-10-2022

Protect uninjured eye.

In case of ingestion:

Do NOT induce vomiting.

In case of inhalation:

If breathing is irregular or stopped, administer artificial respiration.

In case of inhalation, consult a doctor immediately and show him packing or label.

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

None.

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

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Treatment:

None.

SECTION 5: Fire-fighting measures

5.1 Extinguishing media:

Suitable extinguishing media:

CO₂ or Dry chemical fire extinguisher.

Extinguishing media which must not be used for safety reasons:

None in particular.

5.2 Special hazards arising from the substance or mixture

Do not inhale explosion gases or combustion gases.

Burning produces heavy smoke.

5.3 Advice for firefighters:

Use suitable breathing apparatus.

Collect contaminated fire extinguishing water separately.

This must not be discharged into drains.

Move undamaged containers from immediate hazard area if it can be done safely.

SECTION 6: Accidental release measures for the substance or mixture

6.1 Personal precautions, protective equipment and emergency procedures:

Wear personal protection equipment.

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

Provide adequate ventilation.

Use appropriate respiratory protection.

See protective measures under point 7 and 8.

6.2 Environmental precautions:

Do not allow to enter into soil/subsoil.

Do not allow to enter into surface water or drains.

Retain contaminated washing water and dispose it.

In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

Suitable material for taking up: absorbing material, organic, sand.

6.3 Methods and material for containment and cleaning up

Wash with plenty of water.

6.4 Reference to other sections:

See also section 8 and 13.

SECTION 7: Handling and storage:

7.1 Precautions for safe handling

Avoid contact with skin and eyes, inhalation of vapours and mists.

Use localized ventilation system.

Don't use empty container before they have been cleaned.

SAFETY DATA SHEET



In accordance with directive 1907/2006/EC, 2020/878

Version 2.0

Revision date: 15-06-2022

Page: Page 4 of 9

Print date: 19-10-2022

Trade name: Polurea 20 A | GP 020 A

Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.

See also section 8 for recommended protective equipment.

Advice on general occupational hygiene:

Contaminated clothing should be changed before entering eating areas.

Do not eat or drink while working.

7.2 Conditions for safe storage, including any incompatibilities

Store in original containers, dry, tightly closed, in a cool and well-ventilated area.

Avoid contact with skin, eyes and clothing.

Keep away from food, drink and feed.

Incompatible materials:

None in particular.

Instructions as regards storage premises:

Adequately ventilated premises.

7.3 Specific end use:

None in particular.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters:

4-methyl-m-phenylene diisocyanate - CAS: 584-84-9

ACGIH - TWA (8 hours): 0.001 ppm - STEL: 0.005 ppm - Comments: (IFV), Skin, DSEN, RSEN, A3 - Asthma, pulm func, eye irritation

DNEL exposure limits

4-methyl-m-phenylene diisocyanate - CAS: 584-84-9

Worker Industry: 0.140 mg/m³ - Exposure: Human Inhalation - Frequency: Short Term, systemic effects

Worker Industry: 0.140 mg/m³ - Exposure: Human Inhalation - Frequency: Short Term, local effects

Worker Industry: 0.035 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, systemic effects

Worker Industry: 0.035 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, local effects

PNEC exposure limits

4-methyl-m-phenylene diisocyanate - CAS: 584-84-9

Target: Fresh Water - Value: 12.500 mg/m³

Target: Marine water - Value: 1.250 mg/m³

Target: Soil (agricultural) - Value: 1.000 mg/kg

8.2 Exposure controls:

Eye protection:

Wear safety goggles (ref. Standard EN 166).

Protection for the skin:

Safety shoes.

Wear long-sleeved working clothes and safety shoes for professional use of category I (REF. Dir. 89/686 / EEC and EN 344).

Protection for hands:

Protect your hands with work gloves (ref. Directive 89/686 / EEG and its amendments and EN 374/2003).

Respiratory protection:

Use adequate protective breathing equipment. (Ref. Dir. 89/686 / EEC as amended - UNI PROTECTED / 1998 - UNI EN 529/2006).

Thermal hazards:

None.

Environmental exposure controls:

Prevent from entering sewers, basements or any place where its accumulation can be dangerous.

Appropriate technical measures:

None.

SAFETY DATA SHEET

In accordance with directive 1907/2006/EC, 2020/878
Version 2.0 Revision date: 15-06-2022
Trade name: Polurea 20 A | GP 020 A

Page: Page 5 of 9
Print date: 19-10-2022

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties:

Physical state:	Liquid
Colour:	Amber
Odour:	Characteristic
Melting point/freezing point:	Not Relevant
Boiling point or initial boiling point and boiling range:	> 300°C
Flammability:	Not Relevant
Lower and upper explosion limit:	Not Relevant
Flash point:	> 170°C
Auto-ignition temperature:	Not Relevant
Decomposition temperature:	Not Relevant
pH:	7
Kinematic viscosity:	Not Relevant
Solubility in water:	Insoluble
Solubility in oil:	Not Relevant
Partition coefficient n-octanol/water (log value):	Not Relevant
Vapour pressure:	Not Relevant
Density and/or relative density:	1.00 g/ml
Relative vapour density:	Not Relevant
Particle characteristics:	
Particle size:	Not Relevant

9.2 Other information

No other relevant information

SECTION 10: Stability and reactivity

10.1 Reactivity:

There are no particular risks of reaction with other substances under normal conditions of use.

10.2 Chemical Stability:

The product is stable under normal use and storage conditions.

10.3 Potentially hazardous reactions:

None.

10.4 Conditions to avoid

Stable under normal conditions.

10.5 Chemically Interacting Materials:

None in particular.

10.6 Hazardous decomposition products:

None.

SECTION 11: Toxicological information

11.1 Information on toxicological effects:

Toxicological information of the product:

N/A

Toxicological information of the main substances contained in the product:

4-methyl-m-phenylene diisocyanate - CAS: 584-84-9

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat 5.110 mg/kg

Test: LD50 - Route: Skin - Species: Rabbit > 9.400 mg/kg

Test: LC50 - Route: Inhalation - Species: Rat 0.107 mg/kg - Duration: 4h

If not otherwise specified, the information required by Regulation (EU) 2015/830 below should be considered as N/A:

(a) acute toxicity;

SAFETY DATA SHEET

In accordance with directive 1907/2006/EC, 2020/878

Version 2.0

Revision date: 15-06-2022

Page: Page 6 of 9

Print date: 19-10-2022

Trade name: Polurea 20 A | GP 020 A

- b) skin corrosion/irritation;
- c) serious eye damage/irritation;
- (d) respiratory or skin sensitisation;
- (e) mutagenicity in germ cells;
- (f) carcinogenicity;
- (g) reproductive toxicity;
- (h) STOT single exposure;
- (i) STOT on repeated exposure;
- (j) hazard of aspiration.

11.2 Information on other hazards

Hormone-disrupting properties

Product:

Rating:

The substance/mixture does not contain any components believed to have endocrine disrupting properties, according to REACH Article 57(f) or Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 on level 0.1% or higher.

Further information:

Product:

Comments:

No data available

SECTION 12: Ecological information

12.1 Toxicity:

Adopt good working practices, so that the product is not released into the environment.

4-methyl-m-phenylene diisocyanate - CAS: 584-84-9

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish 133 mg/l - Duration h: 96 - Notes: OECD TG 203

Endpoint: EC50 - Species: Daphnia 12.50 mg/l - Duration h: 48 - Notes: OECD TG 202

Endpoint: EC50 - Species: Algae 3230 mg/l - Duration h: 96 - Notes: OECD TG 201

Endpoint: EC50 - Species: Algae 4300 mg/l - Duration h: 96 - Notes: OECD TG 201

b) Aquatic chronic toxicity:

Endpoint: NOEC - Species: Daphnia 2 mg/l - Notes: OECD TG 211

c) Bacteria toxicity:

Endpoint: EC50 - Species: BATTERI > 100 mg/l - Duration h: 3

12.2 Persistence and Degradability:

GP 020 A

Biodegradability:

No data available.

12.3 Bioaccumulation:

GP 020 A

Bioaccumulation:

Information not available

12.4 Mobility in Soil:

GP 020 A

Mobility in soil:

No data available

12.5 Results of PBT and vPvB assessment

vPvB-substances: None - PBT Substances None

12.6 Hormone-disrupting properties

Product:

Rating:

SAFETY DATA SHEET



In accordance with directive 1907/2006/EC, 2020/878

Version 2.0

Revision date: 15-06-2022

Page: Page 7 of 9

Print date: 19-10-2022

Trade name: Polurea 20 A | GP 020 A

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12.7 Other Harmful Effects:

None.

SECTION 13: Instructions for disposal

13.1 Waste treatment methods:

Recover if possible.

In so doing, comply with the local and national regulations currently in force.

SECTION 14: Information relating to carriage

14.1 UN number

Not applicable.

14.2 Proper load name according to UN Model Regulations

Not applicable.

14.3 Transport hazard class(es)

Not applicable.

14.4 Packing group

Not applicable.

14.5 Environmental hazards

Not applicable.

14.6 Special precautions for the user

Comments:

The carriage of dangerous goods, including loading and unloading, must be carried out in accordance with regulations by personnel who have received the necessary training;

The shipping classification(s) given herein are for information only, and based solely on the properties of the unpackaged material as described in this MSDS. Transport classifications may vary in terms of mode of transport, package size and variations in regional resp. national regulations.

14.7 Sea transport in bulk according to IMO instruments

Not applicable for product as delivered.

SECTION 15: Legally required information

15.1 Safety, health and environmental regulations and legislation specific to the substance or mixture

Dir. 98/24 / EC (Risks related to chemical agents at work)

Dir. 2000/39 / EC (occupational exposure limits)

Regulation (EC) n. 1907/2006 (REACH)

Regulation (EC) n. 1272/2008 (CLP)

Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013

Regulation (EU) n. 2020/878

Regulation (EU) n. 286/2011 (ATP 2 CLP)

Regulation (EU) n. 618/2012 (ATP 3 CLP)

Regulation (EU) n. 487/2013 (ATP 4 CLP)

Regulation (EU) n. 944/2013 (ATP 5 CLP)

Regulation (EU) n. 605/2014 (ATP 6 CLP)

Regulation (EU) n. 2015/1221 (ATP 7 CLP)

Regulation (EU) n. 2016/918 (ATP 8 CLP)

Regulation (EU) n. 2016/1179 (ATP 9 CLP)

Regulation (EU) n. 2017/776 (ATP 10 CLP)

Regulation (EU) n. 2018/669 (ATP 11 CLP)

Regulation (EU) n. 2018/1480 (ATP 13 CLP)

Regulation (EU) n. 2019/521 (ATP 12 CLP)

SAFETY DATA SHEET



In accordance with directive 1907/2006/EC, 2020/878

Version 2.0

Revision date: 15-06-2022

Page: Page 8 of 9

Print date: 19-10-2022

Trade name: Polurea 20 A | GP 020 A

Regulation (EU) n. 2020/217 (ATP 14 CLP)

Regulation (EU) n. 2020/1182 (ATP 15 CLP)

Regulation (EU) n. 2021/643 (ATP 16 CLP)

Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:

None

Where applicable, refer to the following regulatory provisions :

Directive 2012/18/EU (Seveso III)

Regulation (EC) nr 648/2004 (detergents).

Dir. 2004/42/EC (VOC directive)

Provisions related to directive EU 2012/18 (Seveso III):

Seveso III category according to Annex 1, part 1

None

15.2 Chemical safety assessment:

No chemical safety assessment has been carried out for the mixture.

SECTION 16: Other information

Full text of the H statements

H330 Fatal if inhaled.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

H315 Causes skin 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 if swallowed.

H412 Harmful to aquatic life with long lasting effects.

Full text of other abbreviations

Acute Tox. 1	3.1/1/Inhal	Acute toxicity (inhalation), Category 1
Acute Tox. 4	3.1/4/Inhal	Acute toxicity (inhalation), Category 4
Skin Irrit. 2	3.2/2	Skin irritation, Category 2
Eye Irrit. 2	3.3/2	Eye irritation, Category 2
Resp. Sens. 1,1A,1B	3.4.1/1-1A-1B	Respiratory Sensitisation, Category 1,1A,1B
Skin Sens. 1	3.4.2/1	Skin Sensitisation, Category 1
Skin Sens. 1,1A,1B	3.4.2/1-1A-1B	Skin Sensitisation, Category 1,1A,1B
Carc. 2	3.6/2	Carcinogenicity, Category 2
STOT SE 3	3.8/3	Specific target organ toxicity - single exposure, Category 3
Aquatic Chronic 3	4.1/C3	Chronic (long term) aquatic hazard, category 3

This safety data sheet has been completely updated in compliance to Regulation 2020/878.

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Classification according to Regulation (EC) No 1272/2008

Acute Tox. 4,	H332
Eye Irrit. 2,	H319
Skin Sens. 1,	H317

Classification procedure

Calculation method
Calculation method
Calculation method

This document was prepared by a competent person who has received appropriate training.

Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre, Commission of the European Communities.

SAFETY DATA SHEET



In accordance with directive 1907/2006/EC, 2020/878

Version 2.0

Revision date: 15-06-2022

Page: Page 9 of 9

Print date: 19-10-2022

Trade name: Polurea 20 A | GP 020 A

SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition – Van Nostrand Reinold.

The information contained herein is based on our state of knowledge at the above-specified date.

It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This MSDS cancels and replaces any preceding release.

ADR:	European Agreement concerning the International Carriage of Dangerous Goods by Road.
ATE:	Acute Toxicity Estimate
ATEmix:	Acute toxicity Estimate (Mixtures)
CAS:	Chemical Abstracts Service (division of the American Chemical Society).
CLP:	Classification, Labeling, Packaging.
DNEL:	Derived No Effect Level.
EINECS:	European Inventory of Existing Commercial Chemical Substances.
GefStoffVO:	Ordinance on Hazardous Substances, Germany.
GHS:	Globally Harmonized System of Classification and Labeling of Chemicals.
IATA:	International Air Transport Association.
IATA-DGR:	Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
ICAO:	International Civil Aviation Organization.
ICAO-TI:	Technical Instructions by the "International Civil Aviation Organization" (ICAO).
IMDG:	International Maritime Code for Dangerous Goods.
INCI:	International Nomenclature of Cosmetic Ingredients.
KSt:	Explosion coefficient.
LC50:	Lethal concentration, for 50 percent of test population.
LD50:	Lethal dose, for 50 percent of test population.
PNEC:	Predicted No Effect Concentration.
RID:	Regulation Concerning the International Transport of Dangerous Goods by Rail.
STEL:	Short Term Exposure limit.
STOT:	Specific Target Organ Toxicity.
TLV:	Threshold Limiting Value.
TWA:	Time-weighted average
WGK:	German Water Hazard Class.