Safety Data Sheet

according to 29 CFR 1910.1200(g)

PUR Black

1. Identification

Product identifier

PUR Black

Recommended use of the chemical and restrictions on use

Details of the supplier of the safety data sheet

Company name:	HAGO PU GmbH
Street:	Bodenseestr. 217
Place:	D-81243 München
Telephone:	+49 (0)89 897702-0
e-mail:	info@hago.de
Internet:	www.hago.de

2. Hazard(s) identification

Classification of the chemical

29 CFR Part 1910.1200

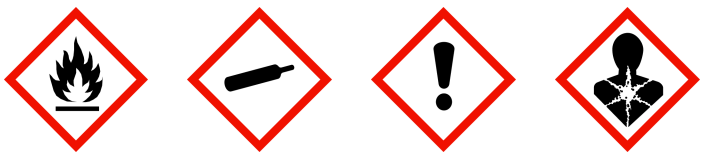
Flammable aerosols: Flam. Aerosol 1
Gases under pressure: Compressed gas
Skin corrosion/irritation: Skin Irrit. 2
Serious eye damage/eye irritation: Eye Irrit. 2A
Respiratory or skin sensitization: Resp. Sens. 1
Respiratory or skin sensitization: Skin Sens. 1
Carcinogenicity: Carc. 2
Specific target organ toxicity single exposure: STOT SE 3 (respiratory tract irritation)
Specific target organ toxicity repeated or prolonged exposure: STOT RE 2

Label elements

29 CFR Part 1910.1200

Signal word: Danger

Pictograms:



Hazard statements

Extremely flammable aerosol
Contains gas under pressure; may explode if heated
Causes skin irritation
May cause an allergic skin reaction
Causes serious eye irritation
May cause allergy or asthma symptoms or breathing difficulties if inhaled
May cause respiratory irritation
Suspected of causing cancer
May cause damage to organs through prolonged or repeated exposure

Precautionary statements

If medical advice is needed, have product container or label at hand.
Keep out of reach of children.
Read label before use.
Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Do not spray on an open flame or other ignition source.
Pressurized container: Do not pierce or burn, even after use.

Do not breathe dust/fume/gas/mist/vapors/spray.
Wash hands thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Contaminated work clothing must not be allowed out of the workplace.
Wear protective gloves/protective clothing/eye protection/face protection.
Wear respiratory protection.
If on skin: Wash with plenty of water.
Take off contaminated clothing and wash it before reuse.
If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If exposed or concerned: Get medical advice/attention.
Store in a well-ventilated place. Keep container tightly closed.
Store locked up.
Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
Dispose of contents/container to an appropriate recycling or disposal facility.

Hazards not otherwise classified

In case of insufficient ventilation and/or through use, explosive/highly flammable mixtures may develop.

Persons already sensitised to diisocyanates may develop allergic reactions when using this product. Persons suffering from asthma, eczema or skin problems should avoid contact, including dermal contact, with this product. This product should not be used under conditions of poor ventilation unless a protective mask with an appropriate gas filter (i.e. type A1 according to standard EN 14387) is used.

3. Composition/information on ingredients

Mixtures

Hazardous components

CAS No	Components	Quantity
9016-87-9	Diphenylmethanediisocyanate, isomers and homologues	19 %
13674-84-5	Tris (2-Chloroisopropyl) Phosphate	17.3 %
86675-46-9	Halogenated Polyether polyole	1.8 %

4. First-aid measures

Description of first aid measures

General information

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

After inhalation

Provide fresh air.

After contact with skin

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

After contact with eyes

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

After ingestion

Do NOT induce vomiting. Call a physician immediately.

Most important symptoms and effects, both acute and delayed

May cause sensitization by inhalation and skin contact.
Danger of sticking eyes and skin due to curing foam.

Indication of any immediate medical attention and special treatment needed

First Aid, decontamination, treatment of symptoms.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

Carbon dioxide (CO2), Foam, Extinguishing powder

Unsuitable extinguishing media

Full water jet

Specific hazards arising from the chemical

In case of fire may be liberated: Nitrogen oxides (NOx), Hydrogen chloride (HCl), Hydrogen cyanide (hydrocyanic acid), Carbon dioxide (CO2), Carbon monoxide.
Vapors may form explosive mixtures with air.

Special protective equipment and precautions for fire-fighters

In case of fire and/or explosion do not breathe fumes. Wear a self-contained breathing apparatus and chemical protective clothing.

Additional information

Use water spray/stream to protect personnel and to cool endangered containers. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Provide adequate ventilation. Remove all sources of ignition.
Avoid contact with skin, eyes and clothes. Do not breathe vapor or spray.

Environmental precautions

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

Methods and material for containment and cleaning up

Provide adequate ventilation. Allow stiffening. Take up mechanically.

Reference to other sections

Safe handling: see section 7
Personal protection equipment (PPE): see section 8
Disposal: see section 13

7. Handling and storage

Precautions for safe handling

Advice on safe handling

Provide adequate ventilation as well as local exhaustion at critical locations. Do not use in enclosed rooms.

Advice on protection against fire and explosion

Pressurised container: May burst if heated. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use.
Vapors may form explosive mixtures with air. Take precautionary measures against static discharges.

Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep in a cool, well-ventilated place.

Hints on joint storage

Do not store together with: Oxidising agent

Further information on storage conditions

15 - 23 °C. Storage above 23 °C will reduce shelf life significantly, depending on temperature and duration.

8. Exposure controls/personal protection

Control parameters

Exposure limits

CAS No.	Substance	ppm	mg/m³	f/cc	Category	Origin
75-28-5	Isobutane	800	1900		TWA (8 h)	REL
74-98-6	Propane	1000	1800		TWA (8 h)	PEL
		1000	1800		TWA (8 h)	REL

Exposure controls

Appropriate engineering controls

Personal protective equipment has to be chosen in accordance with workplace specific conditions, e. g. concentration of the product. Chemical resistance has to be clarified with the supplier of protective equipment.

Protective and hygiene measures

Wash hands before breaks and after work. When using do not eat, drink, smoke, sniff. Remove contaminated, saturated clothing immediately.

Eye/face protection

Wear eye/face protection.

Hand protection

Suitable material: Butyl caoutchouc (butyl rubber)
Thickness of the glove material 0,4 mm
Breakthrough time (maximum wearing time) > 480 min.
The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances.

Skin protection

Wear anti-static footwear and clothing

Respiratory protection

Respiratory protection necessary at:
Particle filter device (DIN EN 143).

Environmental exposure controls

See section 7. No additional measures necessary.

9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state:		
Color:		
Odor:	characteristic	
pH-Value:		not applicable

Changes in the physical state

Melting point/freezing point:	not applicable
Initial boiling point and boiling range:	not applicable
Flash point:	not applicable

Flammability

Solid:	not applicable
Gas:	not applicable

Explosive properties

In use, may form flammable/explosive vapor-air mixture.

Lower explosion limits:	1,5 vol. %
Upper explosion limits:	26,2 vol. %
Ignition temperature:	> 230 °C

Auto-ignition temperature

Solid:	not applicable
Gas:	not applicable
Decomposition temperature:	not determined

Oxidizing properties

Not oxidising.

Vapor pressure:	5500 - 6000 hPa
Density:	not determined
Water solubility:	practically insoluble

Solubility in other solvents

not determined

Partition coefficient:	not determined
Viscosity / dynamic:	not applicable
Viscosity / kinematic:	not applicable
Vapor density:	not determined
Evaporation rate:	not determined

Other information

none/none

10. Stability and reactivity

Reactivity

There are no data available on the mixture itself.

Chemical stability

Stability: Stable

The product is stable under storage at normal ambient temperatures.

Possibility of hazardous reactions

Hazardous reactions: May occur

Oxidising agent, strong.
In use, may form flammable/explosive vapor-air mixture.

Conditions to avoid

Do not expose to temperatures above 50 °C. Heating causes rise in pressure with risk of bursting.

Incompatible materials

Exothermic reaction with: Oxidising agent, strong.

Hazardous decomposition products

Nitrogen oxides (NOx), Hydrogen chloride (HCl), Hydrogen cyanide (hydrocyanic acid), Carbon dioxide (CO_2), Carbon monoxide

11. Toxicological information

Information on toxicological effects

Toxicocinetics, metabolism and distribution

There are no data available on the mixture itself.

Acute toxicity

Based on available data, the classification criteria are not met.

CAS No	Components					
	Exposure route	Dose		Species	Source	Method
9016-87-9	Diphenylmethanediisocyanate, isomers and homologues					
	oral	LD50	>10000 mg/kg	Rat		
	dermal	LD50	> 10000 mg/kg	Rabbit		
	inhalation vapour	ATE	11 mg/l			
13674-84-5	Tris (2-Chloroisopropyl) Phosphate					
	oral	LD50	630 - 2000 mg/kg	Rat	Manufacturer	
	dermal	LD50	> 5000 mg/kg	Rabbit	Manufacturer	OECD 402
86675-46-9	Halogenated Polyether polyole					
	oral	LD50	917 mg/kg	Rat		

Irritation and corrosivity

Causes skin irritation

Causes serious eye irritation

Sensitizing effects

May cause allergy or asthma symptoms or breathing difficulties if inhaled (Diphenylmethanediisocyanate, isomers and homologues)

May cause an allergic skin reaction (Diphenylmethanediisocyanate, isomers and homologues)

Does not apply to the cured foam.

Carcinogenic/mutagenic/toxic effects for reproduction

Suspected of causing cancer (Diphenylmethanediisocyanate, isomers and homologues)

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

Reproductive toxicity: Based on available data, the classification criteria are not met.

Specific target organ toxicity (STOT) - single exposure

May cause respiratory irritation (Diphenylmethanediisocyanate, isomers and homologues)

Specific target organ toxicity (STOT) - repeated exposure

May cause damage to organs through prolonged or repeated exposure (Diphenylmethanediisocyanate, isomers and homologues)

Carcinogenicity (OSHA): No ingredient of this mixture is listed.

Carcinogenicity (IARC): Polymethylene polyphenyl isocyanate (CAS 9016-87-9) is listed in group 3.

Carcinogenicity (NTP): No ingredient of this mixture is listed.

Aspiration hazard

Based on available data, the classification criteria are not met.

12. Ecological information

Ecotoxicity

There are no data available on the mixture itself.

Persistence and degradability

There are no data available on the mixture itself.

Bioaccumulative potential

There are no data available on the mixture itself.

Mobility in soil

There are no data available on the mixture itself.

Other adverse effects

none/none

13. Disposal considerations

Waste treatment methods

Advice on disposal

Dispose of waste according to applicable legislation.

14. Transport information

US DOT 49 CFR 172.101

UN/ID number:	UN 1950
Proper shipping name:	Aerosols, flammable, (each not exceeding 1 L capacity)
Transport hazard class(es):	2.1
Packing group:	-
Hazard label:	2.1

Marine transport (IMDG)

UN number:	UN 1950
UN proper shipping name:	AEROSOLS
Transport hazard class(es):	2.1
Packing group:	-
Hazard label:	2.1

Marine pollutant:	-
Limited quantity:	1000 mL
Excepted quantity:	E0
EmS:	F-D, S-U

Air transport (ICAO-TI/IATA-DGR)

UN number:	UN 1950
UN proper shipping name:	AEROSOLS
Transport hazard class(es):	2.1
Packing group:	-
Hazard label:	2.1

Limited quantity Passenger:	30 kg G
Passenger LQ:	Y203
Excepted quantity:	E0
IATA-packing instructions - Passenger:	203
IATA-max. quantity - Passenger:	75 kg

IATA-packing instructions - Cargo: 203
IATA-max. quantity - Cargo: 150 kg

Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

Special precautions for user

see chapter 6 - 8

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

not relevant

15. Regulatory information

U.S. Regulations

National regulatory information

SARA Section 311/312 Hazards:
Polymeric diphenylmethane diisocyanate (9016-87-9): Delayed (chronic) health hazard, Immediate (acute) health hazard
Tris (2-Chloroisopropyl) Phosphate (13674-84-5): Immediate (acute) health hazard
Isobutane (75-28-5): Fire hazard
Propane (74-98-6): Fire hazard
Halogenated Polyether polyole (86675-46-9): Immediate (acute) health hazard

SARA Section 313 Toxic release inventory:
Polymeric diphenylmethane diisocyanate (9016-87-9): De minimis limit = 1.0 %, Reportable threshold = Standard

Clean Air Act Section 112(r):
Isobutane (75-28-5): Threshold quantities = 10,000 lbs.
Propane (74-98-6): Threshold quantities = 10,000 lbs.

SARA

Section 313 Toxic Release Chemicals
Polymeric diphenylmethane diisocyanate (CAS 9016-87-9).

State Regulations

Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65, State of California)

This product can not expose you to chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

Additional information

CAS No. 86675-46-9 registered in TSCA as CAS No. 68441-62-3.

16. Other information

Hazardous Materials Information Label (HMIS)

Health:	3
Flammability:	3
Physical Hazard:	0
Personal Protection:	X

NFPA Hazard Ratings

Health:	3
Flammability:	3
Reactivity:	0
Unique Hazard:	

Revision date:	16.05.2019
Revision No:	8,02

Other data

Data sources: Data arise from reference works and literature.

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)