1 Identification of the substance/preparation and of the company/undertaking

Identification of the substance or preparation
PUR 964
Application of the substance / the preparation:
Polyurethane foam gun grade (B2)
Manufacturer/Supplier:
DISTRIBUTOR
Friulsider SpA, Via Trieste 1, 33048 San Giovanni al Natisone, Udine, ITALIA
Tel.: +39 0432 747911 Fax.: +39 0432 758444
e-mail: environmental@friulsider.com
Information in case of emergency
Company emergency telephone: +39 0432 747911 (8.30 am – 5.30 pm)

2 Hazards identification

· Classification of the substance or mixture

· Classification according to Regulation (EC) No 1272/2008

GHS02 flame

Flam. Aerosol 1	H222	Extremely flammable aerosol.

GHS08 health hazard

Resp. Sens. 1	H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Carc. 2	H351	Suspected of causing cancer.
STOT RE 2	H373	May cause damage to organs through prolonged or repeated exposure.

GHS09 environment

Aquatic Chronic 2	H411	Toxic to aquatic life with long lasting effects.

GHS07 exclamation mark

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+H336	May cause respiratory irritation. May cause drowsiness or dizziness.
Lact.	H362	May cause harm to breast-fed children.

· Classification according to Directive 67/548/EEC or Directive 1999/45/EC

Xn; Harmful
R20-40-48/20: Harmful by inhalation. Limited evidence of a carcinogenic effect. Harmful: danger of serious damage to health by prolonged exposure through inhalation.

Xn; Sensitising
R42/43: May cause sensitisation by inhalation and skin contact.

Xi; Irritant
R36/37/38: Irritating to eyes, respiratory system and skin.

F+; Extremely flammable
R12: Extremely flammable.

R53-64: May cause long-term adverse effects in the aquatic environment. May cause harm to breastfed babies.

· Information concerning particular hazards for human and environment:
The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

Warning! Pressurized container.
Do not spray on a naked flame or any incandescent material. Keep away from sources of ignition – No smoking. Keep out of the reach of children.
· **Classification system:**
The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

· Label elements

· **Labelling according to EU guidelines:**
The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.

· **Code letter and hazard designation of product:**

Xn Harmful
F+ Extremely flammable

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

· **Risk phrases:**

12	Extremely flammable.
20	Harmful by inhalation.
36/37/38	Irritating to eyes, respiratory system and skin.
40	Limited evidence of a carcinogenic effect.
42/43	May cause sensitisation by inhalation and skin contact.
48/20	Harmful: danger of serious damage to health by prolonged exposure through inhalation.
53	May cause long-term adverse effects in the aquatic environment.
64	May cause harm to breastfed babies.

· **Safety phrases:**

2	Keep out of the reach of children.
16	Keep away from sources of ignition - No smoking.
23	Do not breathe aerosol.
28	After contact with skin, wash immediately with plenty of soap and water.
36/37	Wear suitable protective clothing and gloves.
46	If swallowed, seek medical advice immediately and show this container or label.
51	Use only in well-ventilated areas.

· **Special labelling of certain preparations:**
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.
Do not spray on a naked flame or any incandescent material. Keep away from sources of ignition – No smoking. Keep out of the reach of children.
Contains isocyanates. See information supplied by the manufacturer
Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use.

· Other hazards

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

3 Composition/information on ingredients

· Chemical characterization: Mixtures

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

Dangerous components:		
CAS: 9016-87-9	diphenylmethanediisocyanate,isomeres and homologues Xn R20-40-48/20; Xn R42/43; Xi R36/37/38 Carc. Cat. 3 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	45-55%
CAS: 115-10-6 EINECS: 204-065-8	dimethyl ether F+ R12 Flam. Gas 1, H220; Press. Gas, H280	5-15%
CAS: 13674-84-5	tris(2-chlorisopropyl)-phosphate R52/53 Aquatic Chronic 3, H412	1-10%
CAS: 85535-85-9 EINECS: 287-477-0	alkanes, C14-17, chloro N R50/53 R64-66 Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Lact., H362	1-10%
CAS: 75-28-5 EINECS: 200-857-2	isobutane F+ R12 Flam. Gas 1, H220; Press. Gas, H280	1-10%
CAS: 74-98-6 EINECS: 200-827-9	propane F+ R12 Flam. Gas 1, H220; Press. Gas, H280	<5%

· **Additional information:** For the wording of the listed risk phrases refer to section 16.

4 First aid measures

· 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:**
If skin irritation continues, consult a doctor.
Immediately wash with water and soap and rinse thoroughly.
· **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
· **After swallowing:** Call for a doctor immediately.

5 Firefighting measures

· Extinguishing media

· **Suitable extinguishing agents:**
Foam
CO2, sand, extinguishing powder. Do not use water.
· **For safety reasons unsuitable extinguishing agents:** Water with full jet

· Special hazards arising from the substance or mixture

In case of fire, the following can be released:
Nitrogen oxides (NOx)
Carbon monoxide (CO)

Hydrogen cyanide (HCN)

· **Advice for firefighters**

· **Protective equipment:** Mouth respiratory protective device.

· **Additional information**

Cool endangered receptacles with water spray.
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures**

Keep away from ignition sources.
Ensure adequate ventilation
Wear protective equipment. Keep unprotected persons away.

· **Environmental precautions:**

Do not allow to enter sewers/ surface or ground water.
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow product to reach sewage system or any water course.

· **Methods and material for containment and cleaning up:**

Dispose contaminated material as waste according to item 13.
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Do not flush with water or aqueous cleansing agents
Ensure adequate ventilation.

· **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.

7 Handling and storage

· **Handling:**

· **Precautions for safe handling**

Ensure that suitable extractors are available on processing machines
Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.

· **Information about fire - and explosion protection:**

Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.

· **Conditions for safe storage, including any incompatibilities**

· **Storage:**

· **Requirements to be met by storerooms and receptacles:**

Observe official regulations on storing packagings with pressurized containers.

· **Information about storage in one common storage facility:**

Do not store together with acids.
Do not store together with alkalis (caustic solutions).
Store away from oxidizing agents.

· **Further information about storage conditions:**

Store in a cool place. Heat will increase pressure and may lead to the receptacle bursting.
Protect from humidity and water.
Keep container tightly sealed.
Store in cool, dry conditions in well sealed receptacles.
Protect from heat and direct sunlight.

8 Exposure controls/personal protection

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

· Control parameters

Ingredients with limit values that require monitoring at the workplace:	
9016-87-9 diphenylmethanediisocyanate,isomeres and homologues	
WEL	Short-term value: 0.07 mg/m³ Long-term value: 0.02 mg/m³
811-97-2 1,1,1,2-Tetrafluorethan	
WEL	Long-term value: 4240 mg/m³, 1000 ppm
115-10-6 dimethyl ether	
WEL	Short-term value: 958 mg/m³, 500 ppm Long-term value: 766 mg/m³, 400 ppm
68476-85-7 Petroleum gases, liquefied	
WEL	Short-term value: 2180 mg/m³, 1250 ppm Long-term value: 1750 mg/m³, 1000 ppm

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

· Exposure controls

· **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.
Do not inhale dust / smoke / mist.
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 self-contained 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 trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:**

Tightly sealed goggles

9 Physical and chemical properties

· Information on basic physical and chemical properties

· **General Information**

· **Appearance:**

Form:	Aerosol
Colour:	According to product specification
· **Odour:**	Characteristic
· **Change in condition**	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	Undetermined.
· **Flash point:**	Not applicable.

· **Ignition temperature:** 199°C
· **Self-igniting:** Product is not selfigniting.
· **Danger of explosion:** Heating may cause an explosion.
· **Explosion limits:**
Lower: 3.0 Vol %
Upper: 18.6 Vol %
· **Density:** Not determined.
· **Solubility in / Miscibility with water:** Insoluble.
· **Solvent content:**
VOC (EC) 18.2

10 Stability and reactivity
· **Reactivity**
· **Chemical stability**
· **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
· **Possibility of hazardous reactions** Contact with water releases flammable gases.
· **Hazardous decomposition products:**
Hydrogen cyanide (prussic acid)
Carbon monoxide
Nitrogen oxides (NOx)

11 Toxicological information
· **Information on toxicological effects**
· **Acute toxicity:**
· **Primary irritant effect:**
· **on the skin:** Irritant to skin and mucous membranes.
· **on the eye:** Irritating effect.
· **Sensitization:**
Sensitization possible through inhalation.
Sensitization possible through skin contact.
· **Additional toxicological information:**
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
Harmful
Irritant

12 Ecological information
· **Toxicity**
· **Acquatic toxicity:** 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.
· **Results of PBT and vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.

13 Disposal considerations
· **Waste treatment methods**
· **Recommendation**
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
· **Uncleaned packaging:**
· **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

· Land transport ADR/RID (cross-border)

· **ADR/RID class:** 2 5F Gases.
· **UN-Number:** 1950
· **Packaging group:** -
· **Hazard label:** 2.1
· **UN proper shipping name:** 1950 AEROSOLS
· **Remarks:** LQ:2

· Maritime transport IMDG:

· **IMDG Class:** 2.1
· **UN Number:** 1950
· **Label** 2.1
· **Packaging group:** -
· **EMS Number:** F-D,S-U
· **Marine pollutant:** No
· **Proper shipping name:** AEROSOLS

· Air transport ICAO-TI and IATA-DGR:

· **ICAO/IATA Class:** 2.1
· **UN/ID Number:** 1950
· **Label** 2.1
· **Packaging group:** -
· **Proper shipping name:** AEROSOLS, flammable

· **UN "Model Regulation":** UN1950, AEROSOLS, 2.1
· **Special precautions for user** Warning: Gases.

15 Regulatory information

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

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**
H220 Extremely flammable gas.
H280 Contains gas under pressure; may explode if heated.
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.
H362 May cause harm to breast-fed children.
H373 May cause damage to organs through prolonged or repeated exposure.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
H412 Harmful to aquatic life with long lasting effects.

R12 Extremely flammable.
R20 Harmful by inhalation.
R36/37/38 Irritating to eyes, respiratory system and skin.
R40 Limited evidence of a carcinogenic effect.
R42/43 May cause sensitisation by inhalation and skin contact.
R48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.

R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R64 May cause harm to breastfed babies.
R66 Repeated exposure may cause skin dryness or cracking.

· **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)
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
ICAO: International Civil Aviation Organization
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
VOC: Volatile Organic Compounds (USA, EU)