

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 01.02.2021 Revision: 23.05.2018 Version: GHS03 replaces all previous versions

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1 Product identifier****Trade name: Hanno All Seasons Pistolenschaum, Hanno Profi All Seasons Pistolenschaum****1.2 Relevant identified uses of the substance or mixture and uses advised against****Application of the substance / the mixture** Polyurethane-sealant**1.3 Details of the supplier of the safety data sheet**WS INSEBO GmbH
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Tel.: +43 (0) 2235/86227-0 (Mon-Thu 7h30-16h00, Fri 7h30-13h30)**1.4 Information in case of emergency:** Call local emergency information.**SECTION 2: Hazards identification****2.1 Classification of the substance or mixture****Classification according to Regulation (EC) No 1272/2008**

Aerosol 1	H222-H229	Extremely flammable aerosol. Pressurised container: May burst if heated.
Acute Tox. 4	H332	Harmful if inhaled.
Skin Irrit. 2	H315	Causes skin irritation.
Eye Irrit. 2	H319	Causes serious eye irritation.
Resp. Sens. 1	H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin Sens. 1	H317	May cause an allergic skin reaction.
Carc. 2	H351	Suspected of causing cancer.
STOT SE 3	H335	May cause respiratory irritation.
STOT RE 2	H373	May cause damage to organs through prolonged or repeated exposure.

2.2 Label elements**Labelling according to Regulation (EC) No 1272/2008**

The substance is classified and labelled according to the CLP regulation.

Hazard pictograms

GHS02 GHS07 GHS08

Signal word Danger**Hazard-determining components of labelling:**

diphenylmethanediisocyanate, isomeres and homologues

Hazard statements

H222-H229	Extremely flammable aerosol. Pressurised container: May burst if heated.
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.

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

Precautionary statements

- P102 Keep out of reach of children.
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211 Do not spray on an open flame or other ignition source.
P251 Do not pierce or burn, even after use.
P261 Avoid breathing vapours/spray.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves / eye protection.
P302+P352 IF ON SKIN: Wash with plenty of soap and water.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P314 Get medical advice/attention if you feel unwell.
P405 Store locked up.
P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
P501 Dispose of contents/container to hazardous or special waste collection point.

Additional information:

EUH204 Contains isocyanates. May produce an allergic reaction.

Additional safetyphrases according to Annex XVII of the Commission Regulation No.1907/2006 as well as No.552/2009:

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.

2.3 Other hazards

Results of PBT and vPvB assessment

This mixture does not meet the PBT- or vPvB-criteria according to Regulation (EC) No 1907/2006.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Description: Mixture of substances listed below with nonhazardous additions.

Dangerous components:

CAS: 9016-87-9	diphenylmethanediisocyanate, isomeres and homologues 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	30-60%
CAS: 13674-84-5 EINECS: 237-158-7	tris(2-chloro-1-methylethyl) phosphate Acute Tox. 4, H302	< 25%
CAS: 75-28-5 EINECS: 200-857-2 Index number: 601-004-00-0	isobutane (< 0,1 % butadiene) Flam. Gas 1, H220; Press. Gas (Comp.), H280	5-10%
CAS: 115-10-6 EINECS: 204-065-8 Index number: 603-019-00-8	dimethyl ether Flam. Gas 1, H220; Press. Gas (Comp.), H280	5-10%
CAS: 74-98-6 EINECS: 200-827-9 Index number: 601-003-00-5	propane Flam. Gas 1, H220; Press. Gas (Comp.), H280	1-5%

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Additional information: For the wording of the listed hazard phrases refer to section 16.**SECTION 4: First aid measures**

First aid

4.1 Description of first aid measures**General information:**

In case of accident or if you feel unwell seek medical advice (show label or MSDS where possible).
In case of unconsciousness place patient stably in side position for transportation.

After inhalation:

Move the patient to fresh air and keep at rest.
Seek medical treatment in case of complaints.

After skin contact:

Remove contaminated clothes. Wash affected skin thoroughly with water and soap. In case of irritation seek medical treatment.

After eye contact:

Remove contact lenses and rinse opened eyes for at least 15 minutes with plenty of water. If irritation persists seek medical advice.

After swallowing: Seek medical advice immediately and show the container or label.

4.2 Most important symptoms and effects, both acute and delayed

Inhalation: irritation of the respiratory tract, cough, dyspnea, breathing difficulties, asthma
Skin contact: irritation, erythema
Eye contact: pain or irritation, lacrimation, redness
Ingestion: irritation of the gastrointestinal tract

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

SECTION 5: Firefighting measures**5.1 Extinguishing media**

Suitable extinguishing agents: CO₂, extinguishing powder, sand, soil

For safety reasons unsuitable extinguishing agents: Water

5.2 Special hazards arising from the substance or mixture

Product contains highly flammable vapours and liquids. Formation of smoke in case of fire; carbon oxides, soot, hydrocarbons and aldehydes can be released due to incomplete combustion and thermolysis.
Risk of bursting due to heat. Formation of explosive air/vapour mixtures are possible. Vapors are heavier than air. By distribution at ground level flash back to distant ignition sources is possible.

5.3 Advice for firefighters**Protective equipment:**

In the case of fire wear self-contained respiratory equipment and full protective suit.
Do not inhale explosion gases or combustion gases.

Additional information

Cool endangered receptacles with water spray. Contain runoff to prevent entry into water or drainage systems.
Dispose of fire debris and contaminated fire fighting water according to the regulations.

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SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid inhalation and contact with skin and eyes.

Keep unprotected persons away.

Keep away from ignition sources.

6.2 Environmental precautions:

Do not allow to enter sewers/ surface or ground water.

Advise water authority in case of seepage into water course or sewage system.

6.3 Methods and material for containment and cleaning up:

Allow to solidify and remove mechanically.

Dispose contaminated material as waste according to item 13.

Remove residues using PU foam cleaner.

Additional information: Material automatically cures when exposed to air.

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

While handling pay attention to the usually precaution for chemicals.

Comply with instructions for use.

Avoid any contact with skin, eyes and clothes.

Do not breathe gas/vapours/spray.

Provide good ventilation/exhaustion at the workplace.

Wash hands before break and at the end of work.

Information about fire - and explosion protection:



Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

Pressurised container: protect from sunlight and do not expose to temperatures exceeding 50°C, i.e. electric lights. Do not pierce or burn, even after use.

Do not spray on a naked flame or any incandescent material.

7.2 Conditions for safe storage, including any incompatibilities

Requirements to be met by storerooms and receptacles:

Store in cool, dry place in tightly closed original containers.

Storage regulations for pressurized gas receptacles must be observed.

Information about storage in one common storage facility:

Do not store food, beverages and animal feeding stuffs in the storage area.

Further information about storage conditions:

Keep out of the reach of children and domestic animals.

Protect from heat and direct sunlight.

7.3 Specific end use(s) Sealant

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SECTION 8: Exposure controls/personal protection**Additional information about design of technical facilities:** Provide good ventilation or exhaust at work.**8.1 Control parameters****Ingredients with limit values that require monitoring at the workplace:****CAS: 9016-87-9 diphenylmethanediisocyanate, isomeres and homologues**

WEL (Great Britain) Short-term value: 0.07 ppm; Long-term value: 0.02 ppm; Sen; as -NCO

MAK (Austria) Short-term value: 0.1 mg/m³, 0.01 ppm; Long-term value: 0.05 mg/m³, 0.005 ppm**CAS: 75-28-5 isobutane (< 0,1 % butadiene)**MAK (Austria) Short-term value: 3800 mg/m³, 1600 ppm; Long-term value: 1900 mg/m³, 800 ppm**CAS: 115-10-6 dimethyl ether**WEL (Great Britain) Short-term value: 958 mg/m³, 500 ppm, Long-term value: 766 mg/m³, 400 ppmMAK (Austria) Short-term value: 3820 mg/m³, 2000 ppm, Long-term value: 1910 mg/m³, 1000 ppm**CAS: 74-98-6 propane**MAK (Austria) Short-term value: 3600 mg/m³, 2000 ppm, Long-term value: 1800 mg/m³, 1000 ppm**DNELs:**

Methylenediphenyl diisocyanate (CAS 101-68-8)

worker, DNEL, short-term exposure - systemic effects - dermal 50 mg/kg

worker, DNEL, short-term exposure - local and systemic effects - inhalation 0.1 mg/m³

worker, DNEL, short-term exposure - local effects - dermal 28.7 mg/kg

worker, DNEL, long-term exposure - local and systemic effects - inhalation 0.05 mg/m³

consumer, DNEL, short-term exposure - systemic effects - dermal 25 mg/kg

consumer, DNEL, short-term exposure - local and systemic effects - inhalation 0.05 mg/m³

consumer, DNEL, short-term exposure - systemic effects - oral 20 mg/kg

consumer, DNEL, short-term exposure - local effects - dermal 17.2 mg/kg

consumer, DNEL, long-term exposure - local and systemic effects - inhalation 0.025 mg/m³**PNECs:**

Methylenediphenyl diisocyanate (CAS: 101-68-8)

PNEC freshwater 1 mg/l, marine water 0,1 mg/l; PNEC intermittent releases 10 mg/l

PNEC STP 1 mg/l; PNEC soil 1 mg/kg

Additional information: Based on actual legally binding lists.**8.2 Exposure controls****Personal protective equipment****General protective and hygienic measures:**

Avoid unnecessary contact with the product. Do not eat, drink or smoke at workplace and keep it tidy.

Avoid inhalation and contact with skin and eyes.

Remove contaminated clothing immediately and wash carefully before reuse.

Wash hands before break and at the end of work.

Respiratory protection:

Use protective mask with an appropriate gas filter (i.e. type A1 according to standard EN 14387) in case of insufficient ventilation.

Protection of hands:

Chemical resistant gloves (EN 374)

Dispose of when contaminated inside, when perforated or when contamination outside cannot be removed.

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Material of gloves

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

Butyl rubber (thickness ≥ 0.5 mm), fluorinated elastomer (thickness ≥ 0.4 mm), chlorinated polyethylene, ethylene vinyl alcohol (EVOH), neoprene (thickness ≥ 0.5 mm), nitrile/butadiene rubber (NBR, thickness ≥ 0.35 mm), polyvinyl chloride (PVC)

Rate of permeability: ≥ 480 minutes

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:



Safety glasses (EN166)

Body protection: Protective work clothing

Limitation and supervision of exposure into the environment

Do not allow to enter sewers or surface water. Advise water authority if spillage has entered water course or drainage system.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance:

Form:	Foam aerosols
Colour:	According to product specification
Odour:	Characteristic
Odour threshold:	Not determined

pH: No data available

Change in condition

Melting point/freezing point:	< 0 °C (MDI, ISO 3016)
Boiling point/boiling range:	Not applicable, as aerosol.

Flash point: > 200 °C (MDI, DIN 53171)
Flammability (solid, gas): Extremely flammable.

Ignition temperature: > 350 °C (propellant)
Ignition temperature: > 500 °C (MDI, DIN 51794)
Decomposition temperature: Not determined.
Auto-ignition temperature: Not determined.

Explosive properties: Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

Explosion limits:
Lower: 1.5 Vol % (propellant)
Upper: 16 Vol % (propellant)
Oxidising properties: No data available

Vapour pressure: < 0.7 mPa (propellant, 20 °C)
Vapour pressure: < 0.00001 hPa (MDI)
Vapour density: No data available.

Density at 20 °C: ≈ 1 g/cm³

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Solubility in / Miscibility with**water:** Insoluble; reacts with water
organic solvents: Soluble before curing**Partition coefficient: n-octanol/water:** not determined**Viscosity****Dynamic:** ≥ 200 mPas (MDI, DIN 53019, 20 °C)
VOC (EC): ≈ 0.2 kg/kg**9.2 Other information** No further relevant information available.**SECTION 10: Stability and reactivity****10.1 Reactivity** Stable in standard stocking and use conditions.**10.2 Chemical stability** Stable under recommended storage conditions.**10.3 Possibility of hazardous reactions** Danger of polymerisation.**10.4 Conditions to avoid**Heat, open flames, ignition sources, electrostatic charge
Heating causes rise in pressure with risk of bursting.**10.5 Incompatible materials:** Strong oxidizing agents, strong acids, water**10.6 Hazardous decomposition products:**

None under normal conditions of storage and use.

In the case of fire can be formed: carbon oxides, nitrogen oxides hydrogen cyanide, toxic pyrolysis products

SECTION 11: Toxicological information**11.1 Information on toxicological effects****Acute toxicity**

Harmful if inhaled.

LD/LC50 values relevant for classification: There are no product specific data on toxicology available.**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.

Additional toxicological information:

Diphenylmethanediisocyanate, isomeres and homologues:

In case of exposure to high levels, danger of irritating effects on eyes, nose, throat and respiratory tract irrespective of the concentration arises. Symptoms (breathing difficulties, cough, asthma) may even occur after several hours; Persons already sensitised to diisocyanates may develop allergic reactions even at very low concentrations of the substance. Long-term exposure may cause skin dryness or skin degreasing.

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.

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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:** For the product there are no ecotoxicological data available.**Additional information:** Insoluble in water, the PU foam spreads on the water surface.**12.2 Persistence and degradability** Not readily biodegradable.**12.3 Bioaccumulative potential** No further relevant information available.**12.4 Mobility in soil**

Is very limited due to chemical reaction with water to form an insoluble product (PU foam).

12.5 Results of PBT and vPvB assessment No data available.**12.6 Other adverse effects**Isocyanate reacts with water at the interface forming CO₂ and a solid insoluble product with high melting point (polyurea). This reaction is accelerated by surfactants (e.g. detergents) or by water-soluble solvents. Previous experience shows that polyurea is inert and non-degradable.**SECTION 13: Disposal considerations****13.1 Waste treatment methods****Recommendation**

Do not dispose waste or remains together with domestic waste, do not empty into sink or toilet, hand over to hazardous waste disposers.

European waste catalogue

15 01 10: Packaging containing residues of or contaminated by dangerous substances

15 01 04: metallic packaging

17 02 03: plastic

Uncleaned packaging:**Recommendation:**

Cans should be emptied completely and should preferably be recycled or reused in compliance with the local / national regulations. Cans not emptied completely or remains have to be disposed as hazardous waste.

SECTION 14: Transport information**14.1 UN-Number**

ADR, IMDG, IATA

UN1950

14.2 UN proper shipping name

ADR

1950 AEROSOLS

IMDG

AEROSOLS

IATA

AEROSOLS, flammable

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14.3 Transport hazard class(es)

ADR



Class 2 5F Gases.
Label 2.1
IMDG, IATA



Class 2.1
Label 2.1

14.4 Packing group
ADR, IMDG, IATA

Void

14.5 Environmental hazards:

Not applicable.

14.6 Special precautions for user
Danger code (Kemler):

Warning: Gases.
-

14.7 Transport in bulk according to Annex II of
MARPOL and the IBC Code

Not applicable.

UN "Model Regulation":

UN 1950 AEROSOLS, 2.1

SECTION 15: Regulatory information

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

National regulations: -

Waterhazard class:

Water hazard class (German Regulation) 1 (Self-assessment): slightly hazardous for water.

15.2 Chemical safety assessment: A Chemical Safety Assessment has not 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

- H220 Extremely flammable gas.
- H280 Contains gas under pressure; may explode if heated.
- H302 Harmful if swallowed.
- 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.

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Further information:

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008: Calculation method

Abbreviations and acronyms:

CLP: REGULATION (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures

CAS: Chemical Abstracts Service (division of the American Chemical Society)

EINECS: European Inventory of Existing Commercial Chemical Substances

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

WEL: Workplace Exposure Limit

MAK: maximum concentration of a chemical substance in the workplace

DNEL: Derived No-Effect Level

PNEC: Predicted No-Effect Concentration

PBT: persistent, bioaccumulative and toxic properties

vPvB: very persistent and very bioaccumulative properties

VOC: Volatile Organic Compounds

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

Flam. Gas 1: Flammable gases – Category 1

Aerosol 1: Aerosols – Category 1

Press. Gas (Comp.): Gases under pressure – Compressed gas

Acute Tox. 4: Acute toxicity – Category 4

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

Resp. Sens. 1: Respiratory sensitisation – Category 1

Skin Sens. 1: Skin sensitisation – Category 1

Carc. 2: Carcinogenicity – Category 2

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

Data compared to the previous version altered -