

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

- **1.1 Product identifier**
- **Trade name:** *Hertalan ks205 afgevuld in gaspatronen*
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture** Adhesives
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Carlisle Construction Materials BV
Industrieweg 16
NL 8263 AD Kampen
Tel: 0031 (0) 38 339 33 33
Fax: 0031 (0) 38 339 33 34
e-mail: info@hertalan.com - Internet: www.hertalan.com
- **Further information obtainable from:** Product Safety Department: qesh.nl@ccm-europe.com
- **1.4 Emergency telephone number:** NVIC-Nederland. Tel: +31-30-2748888 (only medical personnel)

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS02 flame

Flam. Liq. 1 H224 Extremely flammable liquid and vapour.



GHS09 environment

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



GHS07

Skin Irrit. 2 H315 Causes skin 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**



GHS02



GHS07



GHS09

- **Signal word** *Danger*
- **Hazard statements**
H224 Extremely flammable liquid and vapour.
H315 Causes skin irritation.
H411 Toxic to aquatic life with long lasting effects.
- **Precautionary statements**
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P280 Wear protective gloves / eye protection.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312 Call a POISON CENTER or doctor/physician if you feel unwell.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
- **Additional information:**
Contains zinc bis(dibutylthiocarbamate). May produce an allergic reaction.

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Restricted to professional users.

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

- **2.3 Other hazards** Not applicable
- **Results of PBT and vPvB assessment** Not applicable.
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

- **3.2 Mixtures**
- **Description:** Mixture of substances listed below with nonhazardous additions.

· **Dangerous components:**

CAS: 115-10-6 EINECS: 204-065-8	dimethyl ether ⚠ Flam. Gas 1, H220; Flam. Liq. 1, H224; Press. Gas C, H280	25-50%
CAS: 110-82-7 EINECS: 203-806-2	cyclohexane ⚠ Flam. Liq. 2, H225; ⚠ Asp. Tox. 1, H304; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Skin Irrit. 2, H315; STOT SE 3, H336	10-25%
CAS: 64742-49-0 EINECS: 265-151-9	Naphtha (petroleum), hydrotreated light ⚠ Flam. Liq. 2, H225; ⚠ Asp. Tox. 1, H304; ⚠ Aquatic Chronic 2, H411; ⚠ Skin Irrit. 2, H315; STOT SE 3, H336	10-25%
CAS: 67-64-1 EINECS: 200-662-2	acetone ⚠ Flam. Liq. 2, H225; ⚠ Eye Irrit. 2, H319; STOT SE 3, H336	2.5-10%
CAS: 136-23-2 EINECS: 205-232-8	zinc bis(dibutyldithiocarbamate) ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335	< 2.5%

· **Additional information:**

"Naphtha" classified and marked in accordance with EU Directives RL 67/548/EWG, Note P.[contents benzene (CAS: 71-43-2) <0,1% by weight]

For the wording of the listed risk phrases refer to section 16.

SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **General information:**
Personal protection for the First Aider.
Remove contaminated clothing. If symptoms persist or in cases of doubt seek medical advice.
- **After inhalation:**
In case of unconsciousness place patient stably in side position for transportation.
If the casualty is not breathing: Perform mouth-to-mouth or mouth-to-nose resuscitation, notify emergency physician immediately
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:**
Rinse opened eye for several minutes under running water.
Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:**
Rinse mouth with water.
If symptoms persist consult doctor.
- **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:** Extinguishing powder. Do not use water.
- **For safety reasons unsuitable extinguishing agents:**
Water
Water with full jet
- **5.2 Special hazards arising from the substance or mixture**
Under certain fire conditions, traces of other toxic gases cannot be excluded, e.g.:
Carbon monoxide (CO)

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- **5.3 Advice for firefighters**
- **Protective equipment:**
Wear self-contained respiratory protective device.
Wear fully protective suit.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- **6.2 Environmental precautions:**
Prevent seepage into sewage system, workpits and cellars.
Inform respective authorities in case of seepage into water course or sewage system.
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).
Ensure adequate ventilation.
Do not flush with water or aqueous cleansing agents
- **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**
Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.
Prevent formation of aerosols.
- **Information about fire - and explosion protection:**
Do not spray onto a naked flame or any incandescent material.
Keep ignition sources away - Do not smoke.
As of July 2003, organizations in the EU must follow the directives to protect employees from explosion risk in areas with an explosive atmosphere.
There are two ATEX directives (one for the manufacturer and one for the user of the equipment):
 - the ATEX 95 equipment directive 94/9/EC, Equipment and protective systems intended for use in potentially explosive atmospheres;
 - the ATEX 137 workplace directive 99/92/EC, Minimum requirements for improving the safety and health protection of workers potentially at risk from explosive atmospheres.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Do not seal receptacle gas tight.
Keep container tightly sealed.
Store in cool, dry conditions in well sealed receptacles.
Protect from heat and direct sunlight.
- **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:	
115-10-6 dimethyl ether	
WEL	Short-term value: 958 mg/m ³ , 500 ppm Long-term value: 766 mg/m ³ , 400 ppm
110-82-7 cyclohexane	
WEL	Short-term value: 1050 mg/m ³ , 300 ppm Long-term value: 350 mg/m ³ , 100 ppm

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67-64-1 acetone

WEL	Short-term value: 3620 mg/m ³ , 1500 ppm Long-term value: 1210 mg/m ³ , 500 ppm
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- **Additional information:** The lists valid during the making were used as basis.
- **8.2 Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Wear high-quality protective equipment during operations such as grinding, drilling and/or sawing
Dust mask FFP3 (Filtering Facepiece Partikel) (EN 149: 2001)
Gloves (grinding) (EN388 (4.1.3.1))
Safety glasses (EN166-168, 170)
Hearing protection (EN352-2)
Vacuum clean contaminated clothing. Do not blow or brush off contamination.
Store protective clothing separately.
The usual precautionary measures are to be adhered to when handling chemicals.
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 gases / fumes / aerosols.
Avoid contact with the eyes and skin.
Do not carry product impregnated cleaning cloths in trouser pockets.
- **Respiratory protection:**
Use suitable respiratory protective device in case of insufficient ventilation.
Oxygen content of the inhalation air must be sufficient i.e. > 17%
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.
Filter AXP3(EN371)
- **Protection of hands:**



Protective gloves

- Butyl rubber gloves(EN374, EN388:4101).
Permeation EN374-3: 2003 (minutes)> 480 minutes
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
While wearing protective gloves cotton single-use undergloves are recommendable. However, these undergloves must be discarded after each use to avoid potential exposure to absorbed product.
- **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.
- **For the permanent contact gloves made of the following materials are suitable:** Butyl rubber, BR
- **For contact of maximum 15 minutes, gloves made of the following materials are suitable:** Butyl rubber, BR
- **Eye protection:**



Tightly sealed goggles

Safety glasses(EN166)

- **Body protection:** Protective work clothing(EN 340, 463, 468, 943-1, 943-2)

SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**

Form:	Liquid
Colour:	Light brown
Odour:	Solvent-like

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· pH-value:	Not applicable.
· Change in condition Boiling point/Boiling range:	-24 °C
· Flash point:	-42 °C
· Self-igniting:	Product is not selfigniting.
· Danger of explosion:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
· Explosion limits:	
Lower:	1.3 Vol %
Upper:	18.6 Vol %
· Vapour pressure at 20 °C:	5200 hPa
· Density at 20 °C:	0.7911 g/cm ³
· Solubility in / Miscibility with water(20 °C):	Not miscible or difficult to mix.
· Viscosity:	
Dynamic at 20 °C:	400 mPas
· Solvent content:	
Organic solvents:	74.9 %
· VOC% (EC)	74.91 %
· Solids content:	25.1 %
· 9.2 Other information	No further relevant information available.

SECTION 10: Stability and reactivity

- **10.1 Reactivity**
- **10.2 Chemical stability**
- **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** No further relevant information available.
- **10.5 Incompatible materials:** Oxidizing agents
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
The product has not been tested. The statements underneath have been derived from the properties of the individual components.

- **Acute toxicity**

· LD/LC50 values relevant for classification:		
115-10-6 dimethyl ether		
Inhalative	LC50, 4h	308 mg/l (Rat)
110-82-7 cyclohexane		
Oral	LD50	> 5000 mg/kg (Rat)
Dermal	LD50	> 2000 mg/kg (Rabbit)
67-64-1 acetone		
Oral	LD50	> 5000 mg/kg (Rat)
Dermal	LD50	> 5000 mg/kg (Rabbit)
Inhalative	LC50	39 mg/l (Rat)
136-23-2 zinc bis(dibutyldithiocarbamate)		
Oral	LD50	> 2000 mg/kg (Rat)

- **Primary irritant effect:**
- **Skin corrosion/irritation** Irritant to skin and mucous membranes.
- **Serious eye damage/irritation** No irritating effect.
- **Respiratory or skin sensitisation** No sensitising effects known.

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· **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:
Irritant

SECTION 12: Ecological information

· **12.1 Toxicity**

· **Aquatic toxicity:**

110-82-7 cyclohexane

EC50, 48h 0.9 mg/l (Daphnia magna)

EC50, 72h 3.4 mg/l (Algae)

LC50, 96h 4.53 mg/l (Fatheted minnow, Pimephales promelas)

67-64-1 acetone

EC50, 48h 39 mg/l (Daphnia magna)

LC50, 96h > 5000 mg/l (Fish)

· **12.2 Persistence and degradability** No further relevant information available.

· **12.3 Bioaccumulative potential**

115-10-6 dimethyl ether

log Kow 0.1 (no species defined)

Empfohlener Wert der LOG KOW Datenbank

· **12.4 Mobility in soil** No further relevant information available.

· **Ecotoxicological effects:**

· **Remark:** Toxic for fish

· **Other information:**

Ecotoxicological data have not been determined specifically for this product. Information given is based on knowledge of the components and the ecotoxicology of similar products.

· **Additional ecological information:**

· **General notes:**

Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

Also poisonous for fish and plankton in water bodies.

Toxic for aquatic organisms

· **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.

· **European waste catalogue** Please contact your waste disposer for the exact waste code.

· **Uncleaned packaging:**

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

SECTION 14: Transport information

· **14.1 UN-Number**

· **ADR, IMDG, IATA**

UN3501

· **14.2 UN proper shipping name**

· **ADR**

3501 CHEMICAL UNDER PRESSURE, FLAMMABLE, N.O.S. (DIMETHYL ETHER, CYCLOHEXANE), ENVIRONMENTALLY HAZARDOUS

· **IMDG**

CHEMICAL UNDER PRESSURE, FLAMMABLE, N.O.S. (DIMETHYL ETHER, CYCLOHEXANE), MARINE POLLUTANT

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· IATA	CHEMICAL UNDER PRESSURE, FLAMMABLE, N.O.S.
· 14.3 Transport hazard class(es)	
· ADR	
	
· Class	2 8F Gases.
· Label	2.1
· IMDG	
	
· Class	2 Gases.
· Label	2.1
· IATA	
	
· Class	2 Gases.
· Label	2.1
· 14.4 Packing group	
· ADR, IMDG, IATA	Void
· 14.5 Environmental hazards:	
· Marine pollutant:	Yes Symbol (fish and tree)
· Special marking (ADR):	Symbol (fish and tree)
· 14.6 Special precautions for user	Warning: Gases.
· Danger code (Kemler):	23
· EMS Number:	F-D,S-U
· 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADR	
· Limited quantities (LQ)	0
· Excepted quantities (EQ)	Code: E0 Not permitted as Excepted Quantity
· Transport category	2
· Tunnel restriction code	B/D
· IMDG	
· Limited quantities (LQ)	0
· Excepted quantities (EQ)	Code: E0 Not permitted as Excepted Quantity
· UN "Model Regulation":	UN3501, CHEMICAL UNDER PRESSURE, FLAMMABLE, N.O.S. (DIMETHYL ETHER, CYCLOHEXANE), ENVIRONMENTALLY HAZARDOUS, 2.1

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SECTION 15: Regulatory information

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

· **National regulations:**

Class	Share in %
NK	50-100

· **Waterhazard class:** Water hazard class 2 (Self-assessment): 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.

H224 Extremely flammable liquid and vapour.

H225 Highly flammable liquid and vapour.

H280 Contains gas under pressure; may explode if heated.

H304 May be fatal if swallowed and enters airways.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

H336 May cause drowsiness or dizziness.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

H411 Toxic to aquatic life with long lasting effects.

· **Department issuing MSDS:** Product Safety Department

· **Contact:** kam-manager: kam@hertalan.com

· **Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation

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 Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

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

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Flam. Gas 1: Flammable gases, Hazard Category 1

Press. Gas C: Gases under pressure: Compressed gas

Flam. Liq. 1: Flammable liquids, Hazard Category 1

Flam. Liq. 2: Flammable liquids, Hazard Category 2

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2

Skin Sens. 1: Sensitisation - Skin, Hazard Category 1

STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

Asp. Tox. 1: Aspiration hazard, Hazard Category 1

Aquatic Acute 1: Hazardous to the aquatic environment - Acute Hazard, Category 1

Aquatic Chronic 1: Hazardous to the aquatic environment - Chronic Hazard, Category 1

Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2

· **Sources**

Classification corresponds to the current lists of the EEC, is supplemented with data from publications and data from the company.

· *** Data compared to the previous version altered.**