

according to 1907/2006/EC, Article 31

Printing date 13.03.2019

Version: 7

Revision: 13.03.2019



according to 1907/2006/EC, Article 31

Printing date 13.03.2019

Version: 7

Revision: 13.03.2019

### Trade name: E245 Canister

(Contd. of page 1) 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/doctor 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(dibutyldithiocarbamate). May produce an allergic reaction.

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.

<ul> <li>Dangerous components:</li> </ul>		
CAS: 115-10-6 EINECS: 204-065-8 Reg.nr.: 01-2119472128-37	dimethyl ether 🚸 Flam. Gas 1, H220; Flam. Liq. 1, H224; Press. Gas C, H280	20-<40%
CAS: 110-82-7 EINECS: 203-806-2 Reg.nr.: 01-2119463273-41	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-<20%
CAS: 64742-49-0 EINECS: 265-151-9 Reg.nr.: 01-2119475133-43	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-<20%
CAS: 67-64-1 EINECS: 200-662-2 Reg.nr.: 01-2119471330-49	acetone Image: Store St	5-<10%
CAS: 136-23-2 EINECS: 205-232-8 Reg.nr.: 01-2119535161-51	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	<0.5%
· Additional information:	I	

"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 hazard 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.

(Contd. on page 3)

GB

according to 1907/2006/EC, Article 31

Version: 7

Revision: 13.03.2019

### Trade name: E245 Canister

Printing date 13.03.2019

(Contd. of page 2)

### SECTION 5: Firefighting measures

- · 5.1 Extinguishing media
- · Suitable extinguishing agents: CO2, extinguishing powder or water spray. Fight larger fires with water spray or foam.
- · For safety reasons unsuitable extinguishing agents: 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)
- · 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). Dispose contaminated material as waste according to item 13. Ensure adequate ventilation.

#### 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.

(Contd. on page 4)

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

Printing date 13.03.2019

 $\mathbb{C}$ 

# Version: 7

Revision: 13.03.2019

### Trade name: E245 Canister

	(Contd. of page 3)
· 8.1 Control parameters	
· Ingredients with limit values that require monitoring at the workplace:	
Wel Short term volue: 058 mg/m <sup>3</sup> 500 ppm	
Long-term value: 766 mg/m <sup>3</sup> , 400 ppm	
110-82-7 cyclohexane	
WEL Short-term value: 1050 mg/m³, 300 ppm Long-term value: 350 mg/m³, 100 ppm	
67-64-1 acetone	
WEL Short-term value: 3620 mg/m³, 1500 ppm Long-term value: 1210 mg/m³, 500 ppm	
· 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. Avoid contact with the even and akin	
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 mus	t be discarded after
each use to avoid potential exposure to absorbed product.	
· Material of gloves	on from monufacturar
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	

according to 1907/2006/EC, Article 31

Version: 7

Revision: 13.03.2019

(Contd. of page 4)

Trade name: E245 Canister

Safety glasses(EN166)

Printing date 13.03.2019

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

SECTION 9: Physical and chemica	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		
· Odour threshold:	Not determined.		
· pH-value:	Not applicable.		
· Change in condition			
Melting point/freezing point:	Undetermined.		
Initial boiling point and boiling range	e: -24 °C		
· Flash point:	-42 °C		
· Ignition temperature:	Not determined.		
· Decomposition temperature:	Not determined.		
· Auto-ignition temperature:	Product is not selfigniting.		
· Explosive properties:	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:	5,200 hPa		
· Density at 20 °C:	0.7911 g/cm³		
Vapour density	Not determined.		
Evaporation rate	Not determined.		
· Solubility in / Miscibility with			
water(20°C):	Not miscible or difficult to mix.		
· Partition coefficient: n-octanol/water:	Not determined.		
· Viscosity:			
Dynamic at 20 °C:	400 mPas		
· Solvent content:			
Organic solvents:	74.9 %		
VOC (EG)	592.6 g/l		
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 No further relevant information available.

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.

(Contd. on page 6)

according to 1907/2006/EC, Article 31 Version: 7

Revision: 13.03.2019

### Trade name: E245 Canister

Printing date 13.03.2019

(Contd. of page 5)

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

### · LD/LC50 values relevant for classification:

115-10-6 dimethyl ether Inhalative LC50, 4h 308 mg/l (Rat) 110-82-7 cyclohexane Oral LD50 >5,000 mg/kg (Rat) LD50 Dermal >2,000 mg/kg (Rabbit) 67-64-1 acetone Oral LD50 >5,000 mg/kg (Rat) Dermal LD50 >5,000 mg/kg (Rabbit) Inhalative LC50 39 mg/l (Rat) 136-23-2 zinc bis(dibutyldithiocarbamate) Oral LD50 >2,000 mg/kg (Rat) · Primary irritant effect: · Skin corrosion/irritation Causes skin irritation Serious eye damage/irritation Based on available data, the classification criteria are not met. · Respiratory or skin sensitisation Based on available data, the classification criteria are not met.

- · CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
- · Germ cell mutagenicity Based on available data, the classification criteria are not met.
- · Carcinogenicity Based on available data, the classification criteria are not met.
- · Reproductive toxicity Based on available data, the classification criteria are not met.
- STOT-single exposure
- May cause drowsiness or dizziness.
- · STOT-repeated exposure Based on available data, the classification criteria are not met.
- · Aspiration hazard Based on available data, the classification criteria are not met.

### SECTION 12: Ecological information

# · 12.1 Toxicity

· Aquatic toxicity: 110-82-7 cyclohexane

- LC50, 96h 4.53 mg/l (Fathered minnow, Pimephales promelas)
- EC50, 48h 0.9 mg/l (Daphnia magna)
- EC50, 72h 3.4 mg/l (Algae)

67-64-1 acetone

- LC50, 96h >5,000 mg/l (Fish)
- EC50, 48h 39 mg/l (Daphnia magna)

· 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.

· Ecotoxical 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.

(Contd. on page 7)

according to 1907/2006/EC, Article 31

Printing date 13.03.2019

Version: 7

Revision: 13.03.2019

Trade name: E245 Canister

(Contd. of page 6)

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.

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
ΙΑΤΑ	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
ΙΑΤΑ	
Class	2 Gases.
Label	2.1

according to 1907/2006/EC, Article 31

Printing date 13.03.2019

Version: 7

Revision: 13.03.2019

### Trade name: E245 Canister

	(Contd. of page
· 14.4 Packing group	Vaid
· ADR, IMIDG, IATA	Volu
· 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
· Stowage Category	D
· Stowage Code	SW2 Clear of living quarters.
· 14.7 Transport in bulk according to Annex II of I	Narpol 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
<ul> <li>Tunnel restriction code</li> </ul>	B/D
·IMDG	
· Limited quantities (LQ)	0
Excepted quantities (EQ)	Code: E0
,	Not permitted as Excepted Quantity
· UN "Model Regulation":	UN 3501 CHEMICAL UNDER PRESSURE, FLAMMABLE, N.O.S. (DIMETHYL ETHER, CYCLOHEXANE), 2.1, ENVIRONMENTALLY HAZARDOUS

#### SECTION 15: Regulatory information

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

· Directive 2012/18/EU

- · Named dangerous substances ANNEX I None of the ingredients is listed.
- · Seveso category

P5a FLAMMABLE LIQUIDS

E2 Hazardous to the Aquatic Environment

· Qualifying quantity (tonnes) for the application of lower-tier requirements 10 t

- $\cdot$  Qualifying quantity (tonnes) for the application of upper-tier requirements 50 t
- · REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3, 57

### · National regulations:

Class	Share in %
NK	60-<80

· 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.

according to 1907/2006/EC, Article 31

Printing date 13.03.2019

Version: 7

Revision: 13.03.2019

### Trade name: E245 Canister

(Contd. of page 8) 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. 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: Globallv 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) VOC: Volatile Organic Compounds (USA, EU) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative Flam. Gas 1: Flammable gases - Category 1 Press, Gas C: Gases under pressure - Compressed gas Flam. Liq. 1: Flammable liquids - Category 1 Flam. Liq. 2: Flammable liquids - Category 2 Skin Irrit. 2: Skin corrosion/irritation - Category 2 Eye Irrit. 2: Serious eye damage/eye irritation - Category 2 Skin Sens. 1: Skin sensitisation - Category 1 STOT SE 3: Specific target organ toxicity (single exposure) - Category 3 Asp. Tox. 1: Aspiration hazard - Category 1 Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard - Category 1 Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard - Category 1 Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic 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.

#### DISCLAIMER:

Information and details given in this document, particularly any recommendations for application and use of our products are based on careful laboratory tests and prevailing practical experience and are believed to be correct at time of publication. The information is not binding, which is also generally true for our practical customer service, given verbally, in writing and by tests. Due to (possibly varying) conditions of transport, storage, process, substrate use or product application (which are beyond our knowledge and control), we strongly recommend to carry out sufficient tests in order to ensure that our products are suitable for the intended processes and applications. Further, it is the user's obligation to utilize this material with due care, in accordance with the information in the Material Safety Datasheet (and with the information given in any other way by Seal Eco) and in full compliance with health, safety and environmental regulations. Whilst proper care has been taken in the preparation of this document, no liability for damage or injury resulting from its use is accepted, other

than the limited liability which may arise towards a contractual party on the basis of Seal Eco conditions of sale (a copy of these conditions is available on request).

Seal Eco acceptance of any orders for this product is expressly conditional upon purchaser's assent to these conditions of sale. No information contained in this document (nor any information given verbally, in writing and by tests) is to be construed as permission, recommendation or inducement by Seal Eco or its officers, employees or affiliates, to use any product or process so as to infringe upon or conflict with any patent. Seal Eco does not attest or guarantee that the use of its products or processes will not infringe upon any patent; user is responsible for verifying its freedom to operate in any jurisdiction.