



Safety data sheet

according to 1907/2006/EC, Article 31

Printing date: 23.11.2022

Version: 37

Revision: 23.11.2022

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

- **1.1 Product identifier**
- **Trade name:** CONTACT CLEANER 159003
- **Article number:** 159003
- **UFI:** 6300-303M-U00H-CV88
- **1.2 Relevant identified uses of the substance or mixture and uses advised against -**
- **Application of the substance / the mixture** Cleaner solvent
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Twin Air B.V.
Eisenhowerweg 8
5466 AB Veghel
The Netherlands

T: +31 (0)413-343040
info@twinair.com
- **Further information obtainable from:** info@twinair.com
- **1.4 Emergency telephone number:** +31 (0) 412 - 343 040 (During normal opening hours)

SECTION 2: Hazards identification

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



GHS02 flame

Aerosol 1 H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.



GHS09 environment

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



GHS07

Eye Irrit. 2 H319 Causes serious eye irritation.

STOT SE 3 H336 May cause drowsiness or dizziness.

Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the GB CLP regulation.
- **Hazard pictograms**



GHS02



GHS07



GHS09

- **Signal word** Danger
- **Hazard-determining components of labelling:**
Hydrocarbons, C7-C9, n-alkanes, iso-alkanes, cyclic (< 0.1% benzene)
Pentane

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propan-2-ol

· Hazard statements

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

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

H411 Toxic to aquatic life with long lasting effects.

· Precautionary statements

P101 If medical advice is needed, have product container or label at hand.

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 mist/vapours/spray.

P271 Use only outdoors or in a well-ventilated area.

P273 Avoid release to the environment.

P280 Wear protective gloves / eye protection.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

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 Store in a well-ventilated place.

P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· Additional information:

EUH066 Repeated exposure may cause skin dryness or cracking.

· 2.3 Other hazards**· Results of PBT and vPvB assessment****· PBT:** Not applicable.**· vPvB:** Not applicable.**SECTION 3: Composition/information on ingredients****· 3.2 Mixtures****· Description:** Cleansing agent**· Dangerous components:**

EC number: 920-750-0 Reg.nr.: 01-2119473851-33	Hydrocarbons, C7-C9, n-alkanes, iso-alkanes, cyclic (< 0.1% benzene) Flam. Liq. 2, H225; Asp. Tox. 1, H304; Aquatic Chronic 2, H411; STOT SE 3, H336, EUH066	25-<50%
CAS: 67-63-0 EINECS: 200-661-7 Reg.nr.: 01-2119457558-25	propan-2-ol Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336	25-<50%
CAS: 109-66-0 EINECS: 203-692-4 Reg.nr.: 01-2119459286-30	Pentane Flam. Liq. 2, H225; Asp. Tox. 1, H304; Aquatic Chronic 2, H411; STOT SE 3, H336, EUH066	10-<25%
CAS: 124-38-9 EINECS: 204-696-9	Carbon dioxide Press. Gas (Liq.), H280	2.5-<10%

· Ingredients according to detergents guideline 648/2004/EC

aliphatic hydrocarbons	≥30%
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· Additional information:

Aerosols and containers fitted with a solid atomizer containing substances or mixtures classified as hazardous by aspiration shall not be labelled for that hazard.

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The text of the hazard statements mentioned here can be found in chapter 16.

SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Generally the product does not irritate the skin.
- **After eye contact:**
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** Do not induce vomiting; call for medical help immediately.
- **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:**
Water haze
Fire-extinguishing powder
Carbon dioxide
Alcohol resistant foam
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:** Mount respiratory protective device.

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:**
Do not allow product to reach sewage system or any water course.
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:**
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.
- **Information about fire - and explosion protection:**
Do not spray onto a naked flame or any incandescent material.
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.

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- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
Store in a cool location.
Observe official regulations on storing packagings with pressurised containers.
- **Information about storage in one common storage facility:**
Observe official regulations on storing packagings with pressurised containers.
- **Further information about storage conditions:**
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

· 8.1 Control parameters

· Ingredients with limit values that require monitoring at the workplace:

67-63-0 propan-2-ol

WEL	Short-term value: 1250 mg/m ³ , 500 ppm
	Long-term value: 999 mg/m ³ , 400 ppm

109-66-0 Pentane

WEL	Long-term value: 1800 mg/m ³ , 600 ppm
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124-38-9 Carbon dioxide

WEL	Short-term value: 27400 mg/m ³ , 15000 ppm
	Long-term value: 9150 mg/m ³ , 5000 ppm

· DNELs

Hydrocarbons, C7-C9, n-alkanes, iso-alkanes, cyclic (< 0.1% benzene)

Oral	DNEL Long term-systemic	699 mg/kg bw/day (Consumer)
Dermal	DNEL Long term-systemic	699 mg/kg bw/day (Consumer)
		773 mg/kg bw/day (Worker)
Inhalative	DNEL Long term-systemic	608 mg/m ³ (Consumer)
		2035 mg/m ³ (Worker)

67-63-0 propan-2-ol

Oral	DNEL Long term-systemic	26 mg/kg bw/day (Consumer)
Dermal	DNEL Long term-systemic	319 mg/kg bw/day (Consumer)
		888 mg/kg bw/day (Worker)
Inhalative	DNEL Long term-systemic	89 mg/m ³ (Consumer)
		500 mg/m ³ (Worker)

109-66-0 Pentane

Oral	DNEL Long term-systemic	214 mg/kg bw/day (Consumer)
Dermal	DNEL Long term-systemic	214 mg/kg bw/day (Consumer)
		432 mg/kg bw/day (Worker)
Inhalative	DNEL Long term-systemic	643 mg/m ³ (Consumer)
		3000 mg/m ³ (Worker)

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

· 8.2 Exposure controls

- **Appropriate engineering controls** No further data; see item 7.
- **Individual protection measures, such as personal protective equipment**
- **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing

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Wash hands before breaks and at the end of work.

Do not inhale gases / fumes / aerosols.

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

General ventilation

- **Respiratory protection:**

Use suitable respiratory protective device in case of insufficient ventilation.

Filter A2/P2

- **Hand protection**

Wear gloves for the protection against chemicals according to EN 374



Protective gloves

Solvent resistant gloves

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.

Nitrile rubber, NBR

Recommended thickness of the material: ≥ 0.5 mm

- **Penetration time of glove material**

For continuous contact we recommend gloves with breakthrough time of at least 240 minutes, with the preference given to a breakthrough time greater than 480 minutes. For short-term or splash guard we recommend the same. We are aware that suitable gloves that offer this level of protection may not be available. In that case, a shorter breakthrough time are acceptable as long as the procedures governing maintenance and timely replacement are followed. The thickness of the gloves is not a good measure of the resistance of the gloves against a chemical substance, because this depends on the exact composition of the material from which the gloves are made.

The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye/face protection**

Safety glasses



Tightly sealed goggles

- **Body protection:**

Use protective suit. (EN-13034/6)

Full skin covering antistatic, chemical and oil resistant clothing and safety shoes are recommended. (EN1149; EN340&EN ISO 13688; EN13034-6).

- **Environmental exposure controls** Use a suitable container to prevent environmental contamination.

SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**

- **General Information**

- **Physical state**

Aerosol

- **Colour:**

According to product specification

- **Odour:**

Characteristic

- **Odour threshold:**

Not determined.

- **Melting point/freezing point:**

Undetermined.

- **Boiling point or initial boiling point and boiling range**

36 °C (109-66-0 Pentane)

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· Flammability	Not applicable.
· Lower and upper explosion limit	
· Lower:	0.7 Vol %
· Upper:	12 Vol %
· Flash point:	-40 °C (109-66-0 Pentane)
· Ignition Temperature	>200 °C
· pH	Mixture is non-polar/aprotic.
· Viscosity:	
· Kinematic viscosity	≤ 20,5 mm ² /s, 40 °C (L)
· Dynamic:	Not determined
· Solubility	
· water:	Not miscible or difficult to mix.
· Partition coefficient n-octanol/water (log value)	Not determined.
· Vapour pressure at 20 °C:	5600 hPa
· Density and/or relative density	
· Density at 20 °C:	0.763 g/cm ³
· Relative density	Not determined.
· Vapour density	Not determined.
· 9.2 Other information	
· Appearance:	
· Form:	Aerosol
· Important information on protection of health and environment, and on safety.	
· Auto-ignition temperature:	Product is not selfigniting.
· Explosive properties:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
· Solvent content:	
· Organic solvents:	96.0 %
· Solids content:	0.0 %
· Change in condition	
· Evaporation rate	Not applicable.
· Information with regard to physical hazard classes	
· Explosives	Void
· Flammable gases	Void
· Aerosols	Extremely flammable aerosol. Pressurised container: May burst if heated.
· Oxidising gases	Void
· Gases under pressure	Void
· Flammable liquids	Void
· Flammable solids	Void
· Self-reactive substances and mixtures	Void
· Pyrophoric liquids	Void
· Pyrophoric solids	Void
· Self-heating substances and mixtures	Void
· Substances and mixtures, which emit flammable gases in contact with water	Void
· Oxidising liquids	Void
· Oxidising solids	Void
· Organic peroxides	Void
· Corrosive to metals	Void
· Desensitised explosives	Void

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.

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- **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:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

SECTION 11: Toxicological information

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
- **Acute toxicity** Based on available data, the classification criteria are not met.

· LD/LC50 values relevant for classification:

Hydrocarbons, C7-C9, n-alkanes, iso-alkanes, cyclic (< 0.1% benzene)

Oral	LD50	>5000 mg/kg (Rat)
	LD50	>8 ml/kg (Rat)
Dermal	LD50	>3100 mg/kg (Rat)
Inhalative	LC50 (4h)	>23.3 mg/l (Rat)

67-63-0 propan-2-ol

Oral	LD50	5840 mg/kg (Rat)
Dermal	LD50	13900 mg/kg (Rabbit)
Inhalative	LC50 (4h)	>25 mg/l (Rat)
	LC50	>25 mg/L (Rat) (Acute Inhalation Toxicity)

109-66-0 Pentane

Oral	LD50	>5000 mg/kg (Rat)
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- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Causes serious eye irritation.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **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** May be fatal if swallowed and enters airways.
- **11.2 Information on other hazards**

· Endocrine disrupting properties

None of the ingredients is listed.

SECTION 12: Ecological information

· 12.1 Toxicity

· Aquatic toxicity:

Hydrocarbons, C7-C9, n-alkanes, iso-alkanes, cyclic (< 0.1% benzene)

NOELR (72h)	10 mg/l (Pseudokirchneriella subcapitata)
EL50 (48h)	3 mg/l (Daphnia magna)
EL50 (72h)	10-30 mg/l (Pseudokirchneriella subcapitata)
LL50 (96h)	>13.4 mg/l (Oncorhynchus mykiss)
NOEC (21 days)	0.17 mg/l (Daphnia magna)
LOEC (21 days)	0.32 mg/l (Daphnia magna)

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67-63-0 propan-2-ol

EC50	>100 mg/l (Bacteria)
LOEC (8 days)	1000 mg/l (Algae)
LC50 (96h)	9640 mg/l (Pimephales promelas)
LC50 (24h)	9714 mg/l (Daphnia magna)

109-66-0 Pentane

NOEC (72h)	7.51 mg/l (Pseudokirchneriella subcapitata)
EC50 (72h)	10.7 mg/l (Pseudokirchneriella subcapitata)
LC50 (96h)	4.26 mg/l (Oncorhynchus mykiss)
EC50 (48h)	2.7 mg/l (Daphnia magna)

- **12.2 Persistence and degradability**

Easily biodegradable

Not easily biodegradable

- **12.3 Bioaccumulative potential** No further relevant information available.

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

- **12.5 Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

- **12.6 Endocrine disrupting properties**

The product does not contain substances with endocrine disrupting properties.

- **12.7 Other adverse effects**

- **Remark:** Harmful to fish

- **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.

Harmful to aquatic organisms

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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**

HP3	Flammable
HP4	Irritant - skin irritation and eye damage
HP5	Specific Target Organ Toxicity (STOT)/Aspiration Toxicity
HP14	Ecotoxic

- **Uncleaned packaging:**

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

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SECTION 14: Transport information

- **14.1 UN number or ID number**

- **ADR, ADN, IMDG, IATA**

UN1950

- **14.2 UN proper shipping name**

- **ADR, ADN**

UN1950 AEROSOLS, ENVIRONMENTALLY
HAZARDOUS

- **IMDG**

AEROSOLS, MARINE POLLUTANT

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· IATA	AEROSOLS, flammable
· 14.3 Transport hazard class(es)	
· ADR	
	
	
· Class	2 5F Gases.
· Label	2.1
· ADN	
· ADN/R Class:	2 5F
· IMDG	
	
	
· Class	2.1 Gases.
· Label	2.1
· IATA	
	
· Class	2.1 Gases.
· Label	2.1
· 14.4 Packing group	
· ADR, IMDG, IATA	Void
· 14.5 Environmental hazards:	Product contains environmentally hazardous substances: Hydrocarbons, C7-C9, n-alkanes, iso-alkanes, cyclic (< 0.1% benzene)
· Marine pollutant:	Yes
· Special marking (ADR):	Symbol (fish and tree)
· 14.6 Special precautions for user	Warning: Gases.
· Hazard identification number (Kemler code):	-
· EMS Number:	F-D,S-U
· Stowage Code	SW1 Protected from sources of heat. SW22 For AEROSOLS with a maximum capacity of 1 litre: Category A. For AEROSOLS with a capacity above 1 litre: Category B. For WASTE AEROSOLS: Category C, Clear of living quarters.
· Segregation Code	SG69 For AEROSOLS with a maximum capacity of 1 litre: Segregation as for class 9. Stow "separated from" class 1 except for division 1.4. For AEROSOLS with a capacity above 1 litre: Segregation as for the appropriate subdivision of class 2. For WASTE AEROSOLS: Segregation as for the appropriate subdivision of class 2.

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· 14.7 Maritime transport in bulk according to IMO instruments	Not applicable.
· Transport/Additional information:	
· ADR	
· Limited quantities (LQ)	1L
· Excepted quantities (EQ)	Code: E0 Not permitted as Excepted Quantity
· Transport category	2
· Tunnel restriction code	D
· IMDG	
· Limited quantities (LQ)	1L
· Excepted quantities (EQ)	Code: E0 Not permitted as Excepted Quantity
· UN "Model Regulation":	UN 1950 AEROSOLS, 2.1, ENVIRONMENTALLY HAZARDOUS

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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**
E2 Hazardous to the Aquatic Environment
P3b FLAMMABLE AEROSOLS
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 200 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 500 t
- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3

- **DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**

None of the ingredients is listed.

- **REGULATION (EU) 2019/1148**

- **Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))**

None of the ingredients is listed.

- **Annex II - REPORTABLE EXPLOSIVES PRECURSORS**

None of the ingredients is listed.

- **Regulation (EC) No 273/2004 on drug precursors**

None of the ingredients is listed.

- **Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors**

None of the ingredients is listed.

- **National regulations:**

- **Breakdown regulations:**

Class	Share in %
NK	75-<100

- **VOC-CH** 96.03 %
- **VOC-EU** 732.7 g/l
- **Danish MAL Code** 5-3

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

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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**

- H225 Highly flammable liquid and vapour.
- H280 Contains gas under pressure; may explode if heated.
- H304 May be fatal if swallowed and enters airways.
- H319 Causes serious eye irritation.
- H336 May cause drowsiness or dizziness.
- H411 Toxic to aquatic life with long lasting effects.
- EUH066 Repeated exposure may cause skin dryness or cracking.

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

Physical and chemical properties: The classification is based on the results of the mixtures tested. Health hazards, Environmental hazards: The method of classification of mixtures based on the constituents of the mixture (sum formula).

· **Contact:** -

· **Date of previous version:** 04.07.2022

· **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 relatif au transport international 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)
- MAL-Code: Måleteknisk Arbejdshygiejnisk Luftbehov (Regulation for the labeling concerning inhalation hazards, Denmark)
- DNEL: Derived No-Effect Level (UK REACH)
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent
- PBT: Persistent, Bioaccumulative and Toxic
- vPvB: very Persistent and very Bioaccumulative
- Aerosol 1: Aerosols – Category 1
- Press. Gas (Liq.): Gases under pressure – Liquefied gas
- Flam. Liq. 2: Flammable liquids – Category 2
- Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
- STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
- Asp. Tox. 1: Aspiration hazard – Category 1
- Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

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

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Printing date 19.09.2023

Version number 4.1 (replaces version 4.0)

Revision: 19.09.2023

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

1.1 Product identifier

Trade name: **OEM TWIN AIR BIO LIQUID POWER**

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

Air filter oil

Only for proper handling.

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:

MOTOREX AG

Bern–Zürich–Strasse 31, Postfach

CH–4901 Langenthal

Tel. +41 (0)62 919 75 75

www.motorex.com

Further information obtainable from: msds@motorex.com

1.4 Emergency telephone number:

In case of a medical emergency following exposure to a chemical, the public should call NHS Direct in England or Wales 0845 46 47 or NHS 24 in Scotland 08454 24 24 24 (UK only).

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Flam. Liq. 2 H225 Highly flammable liquid and vapour.

Skin Irrit. 2 H315 Causes skin irritation.

STOT SE 3 H336 May cause drowsiness or dizziness.

Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.

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

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the GB CLP regulation.

Hazard pictograms



GHS02 GHS07 GHS08 GHS09

Signal word Danger

Hazard-determining components of labelling:

Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane

Hydrocarbons, C7, n-alkanes, Isoalkanes, cyclenes

Hydrocarbons, C6, isoalkanes, <5% of n-hexane

Hazard statements

H225 Highly flammable liquid and vapour.

H315 Causes skin irritation.

H336 May cause drowsiness or dizziness.

H304 May be fatal if swallowed and enters airways.

H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

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- P103 Read carefully and follow all instructions.
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P241 Use explosion-proof [electrical/ventilating/lighting] equipment.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
P321 Specific treatment (see on this label).
P331 Do NOT induce vomiting.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P362+P364 Take off contaminated clothing and wash it before reuse.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **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:**

EC number: 921-024-6 Reg.nr.: 01-2119475514-35	Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane Flam. Liq. 2, H225; Asp. Tox. 1, H304; Aquatic Chronic 2, H411; Skin Irrit. 2, H315; STOT SE 3, H336	25-50%
EC number: 927-510-4 Reg.nr.: 01-2119475515-33- xxxx	Hydrocarbons, C7, n-alkanes, Isoalkanes, cyclenes Flam. Liq. 2, H225; Asp. Tox. 1, H304; Aquatic Chronic 2, H411; Skin Irrit. 2, H315; STOT SE 3, H336	≥20-<25%
EC number: 931-254-9 Reg.nr.: 01-2119484651-34	Hydrocarbons, C6, isoalkanes, <5% of n-hexane Flam. Liq. 2, H225; Asp. Tox. 1, H304; Aquatic Chronic 2, H411; Skin Irrit. 2, H315; STOT SE 3, H336	≥10-<20%

· **Regulation (EC) No 648/2004 on detergents / Labelling for contents**

aliphatic hydrocarbons	≥30%
------------------------	------

- **Additional information:** 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:** Immediately remove any clothing soiled by the product.
- **After inhalation:** In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** If symptoms persist consult doctor.
- **4.2 Most important symptoms and effects, both acute and delayed**
- No further relevant information available.

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- **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:**
CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **5.2 Special hazards arising from the substance or mixture**
No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:** No special measures required.

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:**
Do not allow product to reach sewage system or any water course.
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 section 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.
Prevent formation of aerosols.
- **Information about fire - and explosion protection:**
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
- **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:**
Keep container tightly sealed.
Store in cool, dry conditions in well sealed receptacles.
- **Storage class:** 3
- **7.3 Specific end use(s)** No further relevant information available.

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SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

DNELs

Hydrocarbons, C6, isoalkanes, <5% of n-hexane

Oral	DNEL/general population/Systemic effects/Long-term	1,301 mg/kg/24h (consumer)
Dermal	DNEL / Workers / Systemic effects / Long-term	13,964 mg/kg/24h (worker)
	DNEL/general population/Systemic effects/Long-term	1,377 mg/kg/24h (consumer)
Inhalative	DNEL / Workers / Systemic effects / Long-term	5,306 mg/m3 (worker)
	DNEL/general population/Systemic effects/Long-term	1,131 mg/m3 (consumer)

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

8.2 Exposure controls

Appropriate engineering controls No further data; see section 7.

Individual protection measures, such as 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 gases / fumes / aerosols.

Avoid contact with the skin.

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.

Not necessary if room is well-ventilated.

Respiratory protection if formation of aerosol or mist: use mask with filter type A2, A2/P2 or ABEK.

Hand protection

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

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 through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye/face protection



safety goggles

Body protection: Protective work clothing

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SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

General Information	
Physical state	Fluid
Colour:	Dark green
Odour:	Solvent-like
Odour threshold:	Not determined.
Melting point/freezing point:	Undetermined.
Boiling point or initial boiling point and boiling range	65 °C (DIN EN ISO 3405)
Flammability	Highly flammable.
Lower and upper explosion limit	
Lower:	1 Vol %
Upper:	7.3 Vol %
Flash point:	-20 °C
Auto-ignition temperature:	250 °C (DIN 51794)
Decomposition temperature:	Not determined.
pH	Not determined.
Viscosity:	
Kinematic viscosity	7.1 mm ² /s @ 40 °C
Consistency	
Dynamic:	Not determined.
Solubility	
water:	Not miscible or difficult to mix.
Partition coefficient n-octanol/water (log value)	Not determined.
Heat Capacity	
Vapour pressure at 20 °C:	1.9 hPa
Density and/or relative density	
Density at 20 °C:	0.781 g/cm ³ (ASTM D 4052)
Relative density	Not determined.
Vapour density	Not determined.

9.2 Other information

Appearance:	
Form:	Fluid
Important information on protection of health and environment, and on safety.	
Explosive properties:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
Change in condition	
Evaporation rate	Not determined.

Information with regard to physical hazard classes

Explosives	Void
Flammable gases	Void
Aerosols	Void
Oxidising gases	Void
Gases under pressure	Void
Flammable liquids	Highly flammable liquid and vapour.
Flammable solids	Void
Self-reactive substances and mixtures	Void
Pyrophoric liquids	Void
Pyrophoric solids	Void
Self-heating substances and mixtures	Void

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- | | |
|--|------|
| · Substances and mixtures, which emit flammable gases in contact with water | Void |
| · Oxidising liquids | Void |
| · Oxidising solids | Void |
| · Organic peroxides | Void |
| · Corrosive to metals | Void |
| · Desensitised explosives | Void |

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:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

SECTION 11: Toxicological information

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
- **Acute toxicity** Based on available data, the classification criteria are not met.

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

Hydrocarbons, C7, n-alkanes, Isoalkanes, cyclenes

Oral	LD50	8 ml/kg (rat)
Dermal	LD50	4 ml/kg (rat)
	LD50	2,800-3,100 mg/kg (rat)
	NOEL	200-2,000 mg/kg/24h (rabbit)
	NOAEL	375-3,750 mg/kg/24h (rat)
Inhalative	LC50 / 4h	23.3 mg/l (rat)
	NOAEC	9.84-20 mg/l (rat)

Hydrocarbons, C6, isoalkanes, <5% of n-hexane

Oral	LD50	25 ml/kg (rat)
Dermal	LD50	5 ml/kg (rabbit)
Inhalative	LC50 / 4h	73,860 ppm (rat)
	NOAEC	8,992 ppm (mouse)
	LOAEC	2,984-8,992 ppm (rat)

- **Skin corrosion/irritation** Causes skin irritation.
- **STOT-single exposure** May cause drowsiness or dizziness.
- **Aspiration hazard** May be fatal if swallowed and enters airways.
- **11.2 Information on other hazards**

· **Endocrine disrupting properties**

540-97-6	Dodecamethylcyclotetrasiloxane	List II
541-02-6	2,2,4,4,6,6,8,8,10,10-decamethylcyclopentasiloxane	List II
556-67-2	octamethylcyclotetrasiloxane	List II; III

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SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity:

Hydrocarbons, C7, n-alkanes, Isoalkanes, cyclenes

EC50	0.23 mg/l/21d (aquatic invertebrates)
EC50	0.64 mg/l/48h (aquatic invertebrates)
LL50	8.2-13.4 mg/l/96h (fish)
EL50	3.7-13 mg/l/96h (algae / cyanobacteria)
EL50	3-4.5 mg/l/48h (aquatic invertebrates)
	10-30 mg/l/48h (algae / cyanobacteria)
EL50	12 mg/l/24h (aquatic invertebrates)
	10-30 mg/l/24h (algae / cyanobacteria)
EL50	3.1-30 mg/l/72h (algae / cyanobacteria)
EL50	10 mg/l/21d (fish)
EL0	2 mg/l/48h (aquatic invertebrates)
EL0	10 mg/l/24h (aquatic invertebrates)
NOEC	0.17 mg/l/21d (aquatic invertebrates)
NOELR	1-16 mg/l/28d (aquatic invertebrates)
	1.534 mg/l/28d (fish)
NOELR	2.6 mg/l/21d (fish)
NOELR	0.5-10 mg/l/72h (algae / cyanobacteria)
NOELR	0.5 mg/l/48h (aquatic invertebrates)
LOEC	0.32 mg/kg/28d (aquatic invertebrates)

Hydrocarbons, C6, isoalkanes, <5% of n-hexane

LL50	18.27 mg/l/96h (fish)
EL50	31.9 mg/l/48h (aquatic invertebrates)
EL50	13.56 mg/l/72h (algae / cyanobacteria)
NOELR	4.089 mg/l/28d (fish)
NOELR	7.138 mg/l/21d (aquatic invertebrates)
NOELR	3.034 mg/l/72h (algae / cyanobacteria)

12.2 Persistence and degradability No further relevant information available.

12.3 Bioaccumulative potential

Hydrocarbons, C7, n-alkanes, Isoalkanes, cyclenes

Biodegradability	98 % (28d) (Biodegradability) (OECD 301 F)
------------------	--

Hydrocarbons, C6, isoalkanes, <5% of n-hexane

Partition coefficient	3.6 [---] (log Kow) (Bioaccumulation)
Biodegradability	>80 % (28d) (Biodegradability) (OECD 301 F)

12.4 Mobility in soil No further relevant information available.

12.5 Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

12.6 Endocrine disrupting properties

For information on endocrine disrupting properties see section 11.

12.7 Other adverse effects

Remark: Toxic for fish

Additional ecological information:

General notes:

Water hazard class 2 (according to Appendix 1 AWSV): significantly hazardous to water

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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

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.

Contact waste processors for recycling information.

Return product and/or partially emptied container in original packaging to the point of sale or hand it over to a collection point for special waste.

Uncleaned packaging:

Recommendation:

Disposal must be made according to official regulations.

Discharged containers can contain flammable or explosive vapours.

SECTION 14: Transport information

14.1 UN number or ID number

ADR/RID/ADN, IMDG, IATA

UN3295

14.2 UN proper shipping name

ADR/RID/ADN

3295 HYDROCARBONS, LIQUID, N.O.S.,
 ENVIRONMENTALLY HAZARDOUS, special
 provision 640D

IMDG

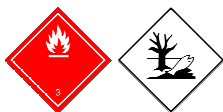
HYDROCARBONS, LIQUID, N.O.S., MARINE
 POLLUTANT

IATA

HYDROCARBONS, LIQUID, N.O.S.

14.3 Transport hazard class(es)

ADR/RID/ADN



Class

3 (F1) Flammable liquids.

Label

3

IMDG



Class

3 Flammable liquids.

Label

3

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· IATA

· **Class** 3 Flammable liquids.
 · **Label** 3

· **14.4 Packing group**
 · **ADR/RID/ADN, IMDG, IATA** II

· **14.5 Environmental hazards:** Product contains environmentally hazardous substances: Hydrocarbons C6-C7, n-alkanes, iso-alkanes, cyclenes, <5% n-hexane
 · **Marine pollutant:** Symbol (fish and tree)
 · **Special marking (ADR/RID/ADN):** Symbol (fish and tree)

· **14.6 Special precautions for user** Warning: Flammable liquids.
 · **Hazard identification number (Kemler code):** 33
 · **EMS Number:** F-E, S-D
 · **Stowage Category** B

· **14.7 Maritime transport in bulk according to IMO instruments** Not applicable.

· Transport/Additional information:

· **ADR/RID/ADN**
 · **Limited quantities (LQ)** 1L
 · **Excepted quantities (EQ)** Code: E2
 Maximum net quantity per inner packaging: 30 ml
 Maximum net quantity per outer packaging: 500 ml
 · **Transport category** 2
 · **Tunnel restriction code** D/E

· **IMDG**
 · **Limited quantities (LQ)** 1L
 · **Excepted quantities (EQ)** Code: E2
 Maximum net quantity per inner packaging: 30 ml
 Maximum net quantity per outer packaging: 500 ml

· **UN "Model Regulation":** UN 3295 HYDROCARBONS, LIQUID, N.O.S. 3, II, 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**
 E2 Hazardous to the Aquatic Environment
 P5c FLAMMABLE LIQUIDS
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 200 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 500 t

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· **15.2 Chemical safety assessment:** A Chemical Safety Assessment has 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. The classification of the mixture was carried out by calculation in accordance with the rules laid down in Annex I of Regulation (EC) No 1272/2008.

No special training instructions to ensure protection of human health and environment are required.

· **purity requirement**

· **Relevant phrases**

H225 Highly flammable liquid and vapour.

H304 May be fatal if swallowed and enters airways.

H315 Causes skin irritation.

H336 May cause drowsiness or dizziness.

H411 Toxic to aquatic life with long lasting effects.

· **Department issuing SDS:** Abteilung Produktsicherheit

· **Abbreviations and acronyms:**

Flam. Liq. 2: Flammable liquids – Category 2

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

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

Asp. Tox. 1: Aspiration hazard – Category 1

Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

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

Annex: Exposure scenario 1

· **Short title of the exposure scenario**

Industrial use of lubricants and greases in vehicles or machinery

· **Sector of Use**

SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites

· **Product category**

PC16 Heat transfer fluids

PC17 Hydraulic fluids

PC24 Lubricants, greases, release products

· **Process category**

PROC1 Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions.

PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions

PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities

PROC9 Transfer of substance or mixture into small containers (dedicated filling line, including weighing)

· **Environmental release category**

ERC4 Use of non-reactive processing aid at industrial site (no inclusion into or onto article)

ERC7 Use of functional fluid at industrial site

· **Description of the activities / processes covered in the Exposure Scenario**

See section 1 of the annex to the Safety Data Sheet.

· **Conditions of use**

· **Duration and frequency** 5 workdays/week.

· **Physical parameters**

· **Physical state** Fluid

· **Concentration of the substance in the mixture** The substance is main component.

· **Other operational conditions**

· **Other operational conditions affecting environmental exposure** No special measures required.

· **Other operational conditions affecting consumer exposure** Not required.

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- **Other operational conditions affecting consumer exposure during the use of the product**
Not applicable.
- **Risk management measures**
- **Worker protection**
- **Organisational protective measures** No special measures required.
- **Technical protective measures** No special measures required.
- **Personal protective measures** No special measures required.
- **Measures for consumer protection** No special measures required.
- **Environmental protection measures**
- **Air** No special measures required.
- **Water** No special measures required.
- **Disposal measures**
Disposal must be made according to official regulations.
Ensure that waste is collected and contained.
- **Disposal procedures** Dispose of product residues with household waste.
- **Waste type** Partially emptied and uncleaned packaging
- **Exposure estimation**
- **Consumer** Not relevant for this Exposure Scenario.
- **Guidance for downstream users** No further relevant information available.

Annex: Exposure scenario 2

- **Short title of the exposure scenario**
Professional use of lubricants and greases in vehicles or machines
- **Sector of Use**
SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
- **Product category**
PC16 Heat transfer fluids
PC17 Hydraulic fluids
PC24 Lubricants, greases, release products
- **Process category**
PROC1 Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions.
PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions
PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities
PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities
PROC20 Use of functional fluids in small devices
- **Environmental release category**
ERC9a Widespread use of functional fluid (indoor)
ERC9b Widespread use of functional fluid (outdoor)
- **Description of the activities / processes covered in the Exposure Scenario**
See section 1 of the annex to the Safety Data Sheet.
- **Conditions of use**
- **Duration and frequency** 5 workdays/week.
- **Physical parameters**
- **Physical state** Fluid
- **Concentration of the substance in the mixture** The substance is main component.
- **Other operational conditions**
- **Other operational conditions affecting environmental exposure** No special measures required.
- **Other operational conditions affecting consumer exposure** Not required.
- **Other operational conditions affecting consumer exposure during the use of the product**
Not applicable.
- **Risk management measures**
- **Worker protection**
- **Organisational protective measures** No special measures required.

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- **Technical protective measures** No special measures required.
- **Personal protective measures** No special measures required.
- **Measures for consumer protection** No special measures required.
- **Environmental protection measures**
- **Air** No special measures required.
- **Water** No special measures required.
- **Disposal measures**
Disposal must be made according to official regulations.
Ensure that waste is collected and contained.
- **Disposal procedures** Dispose of product residues with household waste.
- **Waste type** Partially emptied and uncleaned packaging
- **Exposure estimation**
- **Consumer** Not relevant for this Exposure Scenario.
- **Guidance for downstream users** No further relevant information available.

Annex: Exposure scenario 3

- **Short title of the exposure scenario** Private use of lubricants and greases in vehicles or machines
- **Sector of Use** SU21 Consumer uses: Private households / general public / consumers
- **Product category** PC24 Lubricants, greases, release products
- **Environmental release category**
ERC9a Widespread use of functional fluid (indoor)
ERC9b Widespread use of functional fluid (outdoor)
- **Description of the activities / processes covered in the Exposure Scenario**
See section 1 of the annex to the Safety Data Sheet.
- **Conditions of use**
- **Duration and frequency** 5 workdays/week.
- **Physical parameters**
- **Physical state** Fluid
- **Concentration of the substance in the mixture** The substance is main component.
- **Other operational conditions**
- **Other operational conditions affecting environmental exposure** No special measures required.
- **Other operational conditions affecting consumer exposure** Not required.
- **Other operational conditions affecting consumer exposure during the use of the product**
Not applicable.
- **Risk management measures**
- **Worker protection**
- **Organisational protective measures** No special measures required.
- **Technical protective measures** No special measures required.
- **Personal protective measures** No special measures required.
- **Measures for consumer protection** No special measures required.
- **Environmental protection measures**
- **Air** No special measures required.
- **Water** No special measures required.
- **Disposal measures**
Disposal must be made according to official regulations.
Ensure that waste is collected and contained.
- **Disposal procedures** Dispose of product residues with household waste.
- **Waste type** Partially emptied and uncleaned packaging
- **Exposure estimation**
- **Consumer** Not relevant for this Exposure Scenario.
- **Guidance for downstream users** No further relevant information available.

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

1.1 Product identifier

Trade name: **OEM TWIN AIR DIRT BIO REMOVER**

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

Only for proper handling.

Cleaning material/ Detergent

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:

MOTOREX AG
Bern–Zürich–Strasse 31, Postfach
CH–4901 Langenthal
Tel. +41 (0)62 919 75 75
www.motorex.com

Further information obtainable from: msds@motorex.com

1.4 Emergency telephone number:

In case of a medical emergency following exposure to a chemical, the public should call NHS Direct in England or Wales 0845 46 47 or NHS 24 in Scotland 08454 24 24 24 (UK only).

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Skin Irrit. 2 H315 Causes skin irritation.

Eye Dam. 1 H318 Causes serious eye damage.

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



GHS05

Signal word Danger

Hazard-determining components of labelling:

Anionic surfactant
disodium metasilicate

Hazard statements

H315 Causes skin irritation.

H318 Causes serious eye damage.

Precautionary statements

P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
P103 Read carefully and follow all instructions.
P264 Wash thoroughly after handling.
P280 Wear protective gloves / eye protection / face protection.
P302+P352 IF ON SKIN: Wash with plenty of water.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER/doctor.
P321 Specific treatment (see on this label).

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P362+P364 Take off contaminated clothing and wash it before reuse.

P332+P313 If skin irritation occurs: Get medical advice/attention.

2.3 Other hazards**Results of PBT and vPvB assessment**

PBT: Not applicable.

vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

3.2 Chemical characterisation: Mixtures**Description:** Mixture of substances listed below with nonhazardous additions.**Dangerous components:**

EC number: 932-051-8 Reg.nr.: 01-2119565112-48-0000	Anionic surfactant Eye Dam. 1, H318; Skin Irrit. 2, H315	10%
CAS: 497-19-8 EINECS: 207-838-8 Index number: 011-005-00-2	sodium carbonate Eye Irrit. 2, H319	10%
CAS: 28348-53-0 EINECS: 248-983-7 Reg.nr.: 01-2120759186-46	sodium cumenesulphonate Eye Irrit. 2, H319	10%
CAS: 6834-92-0 EINECS: 229-912-9 Index number: 014-010-00-8	disodium metasilicate Skin Corr. 1B, H314; STOT SE 3, H335	≥2.5-<5%

Regulation (EC) No 648/2004 on detergents / Labelling for contents

phosphates	≥15 - <30%
anionic surfactants	≥5 - <15%
non-ionic surfactants	<5%
perfumes	

Additional information: 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:** Immediately remove any clothing soiled by the product.**After inhalation:** In case of unconsciousness place patient stably in side position for transportation.**After skin contact:** 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: 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:** Use fire extinguishing methods suitable to surrounding conditions.**5.2 Special hazards arising from the substance or mixture**

No further relevant information available.

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- **5.3 Advice for firefighters**
- **Protective equipment:** No special measures required.

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:** Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**
Use neutralising agent.
Dispose contaminated material as waste according to item 13.
- **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** Thorough dedusting.
- **Information about fire - and explosion protection:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep container tightly sealed.
- **Storage class:** 11
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **8.1 Control parameters**
- **Additional information about design of technical facilities:** No further data; see section 7.
- **Ingredients with limit values that require monitoring at the workplace:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

· DNELs

Anionic surfactant

Oral	DNEL/general population/Systemic effects/Long-term	0.425 mg/kg/24h (consumer)
Dermal	DNEL / Workers / Systemic effects / Long-term	85 mg/kg/24h (worker)
	DNEL/general population/Systemic effects/Long-term	42.5 mg/kg/24h (consumer)
Inhalative	DNEL / Workers / Systemic effects / Long-term	6 mg/m3 (worker)
	DNEL/general population/Systemic effects/Long-term	1.5 mg/m3 (consumer)

497-19-8 sodium carbonate

Inhalative	DNEL / Workers / Local Effects / Long-term	10 mg/m3 (worker)
	DNEL/general population/Local effects/Long-term	10 mg/m3 (consumer)

28348-53-0 sodium cumenesulphonate

Oral	DNEL/general population/Systemic effects/Long-term	1.14 mg/kg/24h (consumer)
	DNEL/general pop/Systemic effects/acute-short term	70 mg/kg/24h (consumer)
Dermal	DNEL / Workers / Local Effects / Long-term	4.49 mg/cm2 (worker)
	DNEL / Workers / Systemic effects / Long-term	32 mg/kg/24h (worker)
	DNEL/Workers/Systemic effects/acute-short term	20 mg/kg/24h (worker)

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<i>Inhalative</i>	<i>DNEL/general population/Systemic effects/Long-term</i>	<i>16 mg/kg/24h (consumer)</i>
	<i>DNEL/general pop/Systemic effects/acute-short term</i>	<i>40 mg/kg/24h (consumer)</i>
	<i>DNEL/general population/Local effects/Long-term</i>	<i>0.45 mg/cm2 (consumer)</i>
	<i>DNEL / Workers / Systemic effects / Long-term</i>	<i>4.02 mg/m3 (worker)</i>
	<i>DNEL/Workers/Systemic effects/acute-short term</i>	<i>770 mg/m3 (worker)</i>
	<i>DNEL/Workers/Local effects/acute-short term</i>	<i>770 mg/m3 (worker)</i>
	<i>DNEL / Workers / Local Effects / Long-term</i>	<i>4.02 mg/m3 (worker)</i>
	<i>DNEL/general population/Systemic effects/Long-term</i>	<i>1.98 mg/m3 (consumer)</i>
	<i>DNEL/general pop/Systemic effects/acute-short term</i>	<i>770 mg/m3 (consumer)</i>
	<i>DNEL/general pop/Local effects/acute-short term</i>	<i>770 mg/m3 (consumer)</i>
	<i>DNEL/general population/Local effects/Long-term</i>	<i>1.98 mg/m3 (consumer)</i>

6834-92-0 disodium metasilicate

<i>Oral</i>	<i>DNEL/general population/Systemic effects/Long-term</i>	<i>0.74 mg/kg/24h (consumer)</i>
<i>Dermal</i>	<i>DNEL / Workers / Systemic effects / Long-term</i>	<i>1.49 mg/kg/24h (worker)</i>
	<i>DNEL/general population/Systemic effects/Long-term</i>	<i>0.74 mg/kg/24h (consumer)</i>
<i>Inhalative</i>	<i>DNEL / Workers / Systemic effects / Long-term</i>	<i>6.22 mg/m3 (worker)</i>
	<i>DNEL/general population/Systemic effects/Long-term</i>	<i>1.55 mg/m3 (consumer)</i>

· PNECs**Anionic surfactant**

<i>PNEC / Aquatic organisms / Freshwater</i>	<i>0.268 mg/l (aquatic organisms)</i>
<i>PNEC / Aquatic organisms / Marine water</i>	<i>0.0268 mg/l (aquatic organisms)</i>
<i>PNEC/Aquatic org/intermittent releases(freshwater)</i>	<i>0.055 mg/l (aquatic organisms)</i>
<i>PNEC/Aquatic organisms/Sewage treatment plant/STP</i>	<i>5.6 mg/l (aquatic organisms)</i>
<i>PNEC / Aquatic organisms / Sediment (freshwater)</i>	<i>8.1 mg/kg (aquatic organisms)</i>
<i>PNEC / Aquatic organisms / Sediment (marine water)</i>	<i>8.1 mg/kg (aquatic organisms)</i>
<i>PNEC / Terrestrial organism / Soil</i>	<i>35 mg/kg (terrestrial organisms)</i>

28348-53-0 sodium cumenesulphonate

<i>PNEC / Aquatic organisms / Freshwater</i>	<i>0.23 mg/l (aquatic organisms)</i>
<i>PNEC / Aquatic organisms / Marine water</i>	<i>0.023 mg/l (aquatic organisms)</i>
<i>PNEC/Aquatic org/intermittent releases(freshwater)</i>	<i>2.3 mg/l (aquatic organisms)</i>
<i>PNEC/Aquatic organisms/Sewage treatment plant/STP</i>	<i>160 mg/l (aquatic organisms)</i>
<i>PNEC / Aquatic organisms / Sediment (freshwater)</i>	<i>0.89 mg/kg (aquatic organisms)</i>
<i>PNEC / Aquatic organisms / Sediment (marine water)</i>	<i>0.089 mg/kg (aquatic organisms)</i>

6834-92-0 disodium metasilicate

<i>PNEC / Aquatic organisms / Freshwater</i>	<i>7.5 mg/l (aquatic organisms)</i>
<i>PNEC / Aquatic organisms / Marine water</i>	<i>1 mg/l (aquatic organisms)</i>
<i>PNEC/Aquatic organisms/Sewage treatment plant/STP</i>	<i>1,000 mg/l (aquatic organisms)</i>

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

· 8.2 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 gases / fumes / aerosols.
 Avoid contact with the skin.
 Avoid contact with the eyes and skin.

· Respiratory protection:

Not necessary if room is well-ventilated.

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Respiratory protection if formation of aerosol or mist: use mask with filter type A2, A2/P2 or ABEK.

· **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

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 through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:**



safety goggles

· **Body protection:** Protective work clothing

SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form:	Powder
Colour:	White
Odour:	typical, characteristic
Odour threshold:	Not determined.

· pH-value at 20 °C:	9.8 (DIN 51369) 9.5 (10g/l H ₂ O) (DIN 51369)
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· **Change in condition**

Melting point/freezing point:	Undetermined.
Initial boiling point and boiling range:	Undetermined.

· Flash point:	Not applicable.
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· Flammability (solid, gas):	Not determined.
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· Decomposition temperature:	Not determined.
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· Auto-ignition temperature:	Product is not selfigniting.
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· Explosive properties:	Product does not present an explosion hazard.
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· **Explosion limits:**

Lower:	Not determined.
Upper:	Not determined.

· Vapour pressure:	Not applicable.
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· Density at 20 °C:	0.8 g/cm ³ (ASTM D 4052)
· Relative density	Not determined.
· Vapour density	Not applicable.

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· Evaporation rate	Not applicable.
· Solubility in / Miscibility with water:	Soluble.
· Partition coefficient: n-octanol/water:	Not determined.
· Viscosity:	
Dynamic:	Not applicable.
Kinematic:	Not applicable.
· 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:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.

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

Anionic surfactant

Oral	LD50	2,240 mg/kg (rat)
Dermal	LD50	2,000 mg/kg (rat)
	NOAEL	440 mg/kg/24h (mouse)

497-19-8 sodium carbonate

Oral	LD50	2,800 mg/kg (rat)
Dermal	LD50	2,000 mg/kg (rabbit)
Inhalative	LC50 / 2h	2.3 mg/l (rat)

28348-53-0 sodium cumenesulphonate

Oral	LD50	7,000 mg/kg (rat)
	NOAEL	114-3,534 mg/kg/24h (rat)
	LOAEL	4,092 mg/kg/24h (rat)
Dermal	LD50	2,000 mg/kg (rabbit)
	NOAEL	2,000 mg/kg/24h (mouse)
		800-1,030 mg/kg/24h (rat)
Inhalative	LC50 / 4h	770 mg/l (rat)

6834-92-0 disodium metasilicate

Oral	LD50	662-1,009 mg/kg (mouse)
		995-1,530 mg/kg (rat)
	NOAEL	260-284 mg/kg/24h (mouse)
		227-237 mg/kg/24h (rat)
	LOAEL	716-892 mg/kg/24h (mouse)
Dermal	LD50	5,000 mg/kg (rat)

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Inhalative	LC50 / 4h	2.06 mg/l (rat)
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- **Primary irritant effect:**
- **Skin corrosion/irritation**
Causes skin irritation.
- **Serious eye damage/irritation**
Causes serious eye damage.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **Additional toxicological information:**
- **CMR effects (carcinogenicity, 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** Based on available data, the classification criteria are not met.
- **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:**

Anionic surfactant

LC50	3.94 mg/l/96h (aquatic invertebrates)
LC0	4.1 mg/l/96h (fish)
LC100	7.5 mg/l/96h (fish)
LC50	1.67 mg/l/21d (aquatic invertebrates)
EC50	8.8 mg/l/24h (aquatic invertebrates)
EC10	5.6-8.4 mg/l/72h (algae / cyanobacteria)
EC50	25-72 mg/l/72h (algae / cyanobacteria)
EC50	1.5-2.31 mg/l/21d (aquatic invertebrates)
EC100	12.5 mg/l/48h (aquatic invertebrates)
EC0	6.3 mg/l/48h (aquatic invertebrates)
EC50	8.8 mg/l/48h (aquatic invertebrates)
NOEC	1.18 mg/l/21d (aquatic invertebrates)
NOEC	1.5 mg/l/72h (algae / cyanobacteria)

497-19-8 sodium carbonate

LC50	300 mg/l/96h (fish)
EC50	200-227 mg/l/48h (aquatic invertebrates)

28348-53-0 sodium cumenesulphonate

LC50	450-70,241 mg/l/96h (fish)
LC50	27,334 mg/l/48h (aquatic invertebrates)
LC50	0.8903 g/kg/14d (sediment)
	0.8903 g/kg/14d (terrestr. macroorganisms (- arthropods))
EC10	560 mg/l (fish)
	3,200 mg/l (microorganisms)
EC10	1,954 mg/kg (terrestrial plants)
	178.07 mg/kg (terrestr. macroorganisms (- arthropods))
EC50	230-10,603.5 mg/l/96h (algae / cyanobacteria)
EC50	1,000 mg/l/72h (algae / cyanobacteria)
EC50	154 mg/l/21d (aquatic invertebrates)

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EC50	450-1,000 mg/l/48h (aquatic invertebrates)
	16,000 mg/l/48h (microorganisms)
EC50	10,604 mg/kg (terrestrial plants)
	890.3 mg/kg (terrestr. macroorganisms (- arthropods))
NOEC	30 mg/l/21d (aquatic invertebrates)
NOEC	31 mg/l/96h (algae / cyanobacteria)
	560 mg/l/96h (fish)

6834-92-0 disodium metasilicate

LC50	210-2,320 mg/l/96h (fish)
LC0	180 mg/l/96h (fish)
LC100	250 mg/l/96h (fish)
EC50	100 mg/l/72h (microorganisms)
EC100	10,000 mg/l/48h (aquatic invertebrates)
EC0	100 mg/l/48h (aquatic invertebrates)
EC50	1,700 mg/l/48h (aquatic invertebrates)

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

· **12.3 Bioaccumulative potential**

Anionic surfactant

Partition coefficient	0.7 [---] (log Kow) (Bioaccumulation)
Biodegradability	94 % (28d) (Biodegradability) (EU Method C.4-A)
28348-53-0 sodium cumenesulphonate	
Bioconcentration factor (BCF)	3.16 BCF (Bioaccumulation)

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

· **Additional ecological information:**

· **General notes:**

Water hazard class 1 (according to Appendix 1 AwSV): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Must not reach sewage water or drainage ditch undiluted or unneutralised.

· **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.

Contact waste processors for recycling information.

· **Uncleaned packaging:**

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

· **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

SECTION 14: Transport information

· **14.1 UN-Number**

· **ADR/RID/ADN, ADN, IMDG, IATA**

Void

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- | | |
|--|-----------------|
| · 14.2 UN proper shipping name | |
| · ADR/RID/ADN, ADN, IMDG, IATA | Void |
| · 14.3 Transport hazard class(es) | |
| · ADR/RID/ADN, ADN, IMDG, IATA | |
| · Class | Void |
| · 14.4 Packing group | |
| · ADR/RID/ADN, IMDG, IATA | Void |
| · 14.5 Environmental hazards: | Not applicable. |
| · 14.6 Special precautions for user | Not applicable. |
| · 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code | Not applicable. |
| · UN "Model Regulation": | Void |

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.
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has 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. The classification of the mixture was carried out by calculation in accordance with the rules laid down in Annex I of Regulation (EC) No 1272/2008.

No special training instructions to ensure protection of human health and environment are required.

- **purity requirement**
- **Relevant phrases**
 - H314 Causes severe skin burns and eye damage.
 - H315 Causes skin irritation.
 - H318 Causes serious eye damage.
 - H319 Causes serious eye irritation.
 - H335 May cause respiratory irritation.
- **Department issuing SDS:** Abteilung Produktsicherheit
- **Abbreviations and acronyms:**
 - ADR: Accord relatif au transport international 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)
 - DNEL: Derived No-Effect Level (REACH)
 - PNEC: Predicted No-Effect Concentration (REACH)
 - LC50: Lethal concentration, 50 percent
 - LD50: Lethal dose, 50 percent
 - PBT: Persistent, Bioaccumulative and Toxic
 - vPvB: very Persistent and very Bioaccumulative
 - Skin Corr. 1B: Skin corrosion/irritation – Category 1B
 - Skin Irrit. 2: Skin corrosion/irritation – Category 2
 - Eye Dam. 1: Serious eye damage/eye irritation – Category 1

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Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
 STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
 * **Data compared to the previous version altered.**

Annex: Exposure scenario 1

- **Short title of the exposure scenario** Industrial use of cleaning agents
- **Sector of Use**
 SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites
- **Product category** PC35 Washing and cleaning products (including solvent based products)
- **Process category**
 PROC1 Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions.
 PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions
 PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities
 PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities
 PROC10 Roller application or brushing
 PROC11 Non industrial spraying
 PROC13 Treatment of articles by dipping and pouring
 PROC15 Use as laboratory reagent
- **Environmental release category**
 ERC8a Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor)
- **Description of the activities / processes covered in the Exposure Scenario**
 See section 1 of the annex to the Safety Data Sheet.
- **Conditions of use**
- **Duration and frequency** 5 workdays/week.
- **Physical parameters**
- **Physical state** Fluid
- **Concentration of the substance in the mixture** The substance is main component.
- **Other operational conditions**
- **Other operational conditions affecting environmental exposure** No special measures required.
- **Other operational conditions affecting consumer exposure** Not required.
- **Other operational conditions affecting consumer exposure during the use of the product**
 Not applicable.
- **Risk management measures**
- **Worker protection**
- **Organisational protective measures** No special measures required.
- **Technical protective measures** No special measures required.
- **Personal protective measures** No special measures required.
- **Measures for consumer protection** No special measures required.
- **Environmental protection measures**
- **Air** No special measures required.
- **Water** No special measures required.
- **Disposal measures** Ensure that waste is collected and contained.
- **Disposal procedures** Dispose of product residues with household waste.
- **Waste type** Partially emptied and uncleaned packaging
- **Exposure estimation**
- **Consumer** Not relevant for this Exposure Scenario.
- **Guidance for downstream users** No further relevant information available.

Annex: Exposure scenario 2

- **Short title of the exposure scenario** Professional use of cleaning agents
- **Sector of Use**
 SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

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- **Product category** PC35 Washing and cleaning products (including solvent based products)
- **Process category**
 - PROC1 Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions.
 - PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions
 - PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities
 - PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities
 - PROC10 Roller application or brushing
 - PROC11 Non industrial spraying
 - PROC13 Treatment of articles by dipping and pouring
 - PROC15 Use as laboratory reagent
- **Environmental release category**
 - ERC8a Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor)
- **Description of the activities / processes covered in the Exposure Scenario**
See section 1 of the annex to the Safety Data Sheet.
- **Conditions of use**
 - Duration and frequency** 5 workdays/week.
- **Physical parameters**
- **Physical state** Fluid
- **Concentration of the substance in the mixture** The substance is main component.
- **Other operational conditions**
- **Other operational conditions affecting environmental exposure** No special measures required.
- **Other operational conditions affecting consumer exposure** Not required.
- **Other operational conditions affecting consumer exposure during the use of the product**
Not applicable.
- **Risk management measures**
- **Worker protection**
- **Organisational protective measures** No special measures required.
- **Technical protective measures** No special measures required.
- **Personal protective measures** No special measures required.
- **Measures for consumer protection** No special measures required.
- **Environmental protection measures**
 - Air** No special measures required.
 - Water** No special measures required.
 - Disposal measures** Ensure that waste is collected and contained.
- **Disposal procedures** Dispose of product residues with household waste.
- **Waste type** Partially emptied and uncleaned packaging
- **Exposure estimation**
- **Consumer** Not relevant for this Exposure Scenario.
- **Guidance for downstream users** No further relevant information available.

Annex: Exposure scenario 3

- **Short title of the exposure scenario** Private use of cleaning agents
- **Sector of Use** SU21 Consumer uses: Private households / general public / consumers
- **Product category** PC35 Washing and cleaning products (including solvent based products)
- **Process category**
 - PROC1 Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions.
 - PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions
 - PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities
 - PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities
 - PROC10 Roller application or brushing
 - PROC11 Non industrial spraying
 - PROC13 Treatment of articles by dipping and pouring

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- **Environmental release category**
ERC8a Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor)
- **Description of the activities / processes covered in the Exposure Scenario**
See section 1 of the annex to the Safety Data Sheet.
- **Conditions of use**
- **Duration and frequency** 5 workdays/week.
- **Physical parameters**
- **Physical state** Fluid
- **Concentration of the substance in the mixture** The substance is main component.
- **Other operational conditions**
- **Other operational conditions affecting environmental exposure** No special measures required.
- **Other operational conditions affecting consumer exposure** Not required.
- **Other operational conditions affecting consumer exposure during the use of the product**
Not applicable.
- **Risk management measures**
- **Worker protection**
- **Organisational protective measures** No special measures required.
- **Technical protective measures** No special measures required.
- **Personal protective measures** No special measures required.
- **Measures for consumer protection** No special measures required.
- **Environmental protection measures**
- **Air** No special measures required.
- **Water** No special measures required.
- **Disposal measures** Ensure that waste is collected and contained.
- **Disposal procedures** Dispose of product residues with household waste.
- **Waste type** Partially emptied and uncleaned packaging
- **Exposure estimation**
- **Consumer** Not relevant for this Exposure Scenario.
- **Guidance for downstream users** No further relevant information available.

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