

1 Identification

- **Product identifier**
- **Trade name:** OEM TWIN AIR BIO LIQUID POWER
- **Application of the substance / the mixture**
Air filter oil
Only for proper handling.
- **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
- **Information department:** msds@motorex.com
- **Emergency telephone number:**
USA + Canada: 1 800 424 9300 (Chemtrec Chemical Manufacturers Association, Arlington, VA 22209)

2 Hazard(s) identification

- **Classification of the substance or mixture**

Flam. Liq. 2	H225 Highly flammable liquid and vapor.
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 Acute 2	H401 Toxic to aquatic life.
Aquatic Chronic 2	H411 Toxic to aquatic life with long lasting effects.
- **Label elements**
- **GHS label elements**
The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**


GHS02 GHS07 GHS08 GHS09
- **Signal word** Danger
- **Hazard-determining components of labeling:**
 Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane
 Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics
 Hydrocarbons, C6, isoalkanes, <5% of n-hexane
- **Hazard statements**
 H225 Highly flammable liquid and vapor.
 H315 Causes skin irritation.
 H336 May cause drowsiness or dizziness.
 H304 May be fatal if swallowed and enters airways.
 H401 Toxic to aquatic life.
 H411 Toxic to aquatic life with long lasting effects.
- **Precautionary statements**
 P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
 P240 Ground/bond container and receiving equipment.
 P241 Use explosion-proof electrical/ventilating/lighting/equipment.
 P242 Use only non-sparking tools.
 P243 Take precautionary measures against static discharge.

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- P261 Avoid breathing dust/fume/gas/mist/vapors/spray
 P264 Wash thoroughly after handling.
 P271 Use only outdoors or in a well-ventilated area.
 P273 Avoid release to the environment.
 P280 Wear protective gloves/protective clothing/eye protection/face protection.
 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/shower.
 P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 P312 Call a poison center/doctor if you feel unwell.
 P362+P364 Take off contaminated clothing and wash it before reuse.
 P332+P313 If skin irritation occurs: Get medical advice/attention.
 P370+P378 In case of fire: Use for extinction: CO₂, powder or water spray.
 P391 Collect spillage.
 P403+P233 Store in a well-ventilated place. Keep container tightly closed.
 P403+P235 Store in a well-ventilated place. Keep cool.
 P405 Store locked up.
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



· **HMIS-ratings (scale 0 - 4)**



· **Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

3 Composition/information on ingredients

· **Chemical characterization: Mixtures**

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

· **Dangerous components:**

CAS: 92128-66-0 EC number: 921-024-6	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; Aquatic Acute 2, H401	25-50%
CAS: 92128-67-1 EC number: 927-510-4	Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics Flam. Liq. 2, H225; Asp. Tox. 1, H304; Aquatic Chronic 2, H411; Skin Irrit. 2, H315; STOT SE 3, H336; Aquatic Acute 2, H401	≥20-<25%
EC number: 931-254-9	Hydrocarbons, C6, isoalkanes, <5% of n-hexane Asp. Tox. 1, H304; Aquatic Chronic 2, H411; Skin Irrit. 2, H315; STOT SE 3, H336	≥10-<20%

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4 First-aid measures

- **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.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed**
No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

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

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- **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.
- **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.
- **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.
- **Protective Action Criteria for Chemicals**

· PAC-1:

540-97-6	Dodecamethylcyclhexasiloxane	150 mg/m ³
556-67-2	octamethylcyclotetrasiloxane	30 ppm

· PAC-2:

540-97-6	Dodecamethylcyclhexasiloxane	1,700 mg/m ³
556-67-2	octamethylcyclotetrasiloxane	68 ppm

· PAC-3:

540-97-6	Dodecamethylcyclhexasiloxane	9,900 mg/m ³
556-67-2	octamethylcyclotetrasiloxane	130 ppm

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7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
- **Information about protection against explosions and fires:**
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Keep receptacle tightly sealed.
Store in cool, dry conditions in well sealed receptacles.
- **Storage class:** 3
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see section 7.
- **Control parameters**
- **Components 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.
- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Do not inhale gases / fumes / aerosols.
Avoid contact with the skin.
Avoid contact with the eyes and skin.
- **Breathing equipment:**
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
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.
- **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.

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· **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

9 Physical and chemical properties

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

· **General Information**

· **Appearance:**

Form:	Fluid
Color:	Dark green
Odor:	Solvent-like
Odor threshold:	Not determined.

· **pH-value:** Not determined.

· **Change in condition**

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	65 °C (149 °F) (DIN EN ISO 3405)

· **Flash point:** <-20 °C (<-4 °F)

· **Flammability (solid, gaseous):** Not applicable.

· **Ignition temperature:** 250 °C (482 °F) (DIN 51794)

· **Decomposition temperature:** Not determined.

· **Auto igniting:** Product is not selfigniting.

· **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

· **Explosion limits:**

Lower:	1 Vol %
Upper:	7.3 Vol %

· **Vapor pressure at 20 °C (68 °F):** 1.9 hPa (1.4 mm Hg)

· **Density at 20 °C (68 °F):** 0.781 g/cm³ (6.517 lbs/gal) (ASTM D 4052)

· **Relative density** Not determined.

· **Vapor density** Not determined.

· **Evaporation rate** Not determined.

· **Solubility in / Miscibility with**

Water: Not miscible or difficult to mix.

· **Partition coefficient (n-octanol/water):** Not determined.

· **Viscosity:**

Dynamic:	Not determined.
Kinematic:	7.1 mm ² /s @ 40 °C (44.8 mm ² /s @ 104 °F)

· **Solvent separation test**

VOC content: 12.00 %

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· Other information

No further relevant information available.

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

· Information on toxicological effects

· Acute toxicity:

· LD/LC50 values that are relevant for classification:

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)
		2,984-8,992 ppm (rat)
	LOAEC	8,992 ppm (rat)

· **Primary irritant effect:**· **on the skin:** Irritant to skin and mucous membranes.· **on the eye:** No irritating effect.· **Sensitization:** No sensitizing effects known.· **Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:
Irritant

· **Carcinogenic categories**· **IARC (International Agency for Research on Cancer)**

None of the ingredients is listed.

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

12 Ecological information

· Toxicity

· Aquatic toxicity:

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

LL50	18.27 mg/l/96h (fish)
EL50	31.9 mg/l/48h (aquatic invertebrates)

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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)

- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**

- **Bioaccumulative potential**

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

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

- **Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Toxic for fish
- **Additional ecological information:**
- **General notes:**
Water hazard class 2 (Self-classification according VwVwS, 17.05.1999): 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
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
Contact waste processors for recycling information.
- **Uncleaned packagings:**
- **Recommendation:**
Disposal must be made according to official regulations.
Discharged containers can contain flammable or explosive vapours.

14 Transport information

· UN-Number	
· DOT, ADR/RID/ADN, IMDG, IATA	UN3295
· UN proper shipping name	
· DOT	Hydrocarbons, liquid, n.o.s.
· ADR/RID/ADN	3295 HYDROCARBONS, LIQUID, N.O.S., ENVIRONMENTALLY HAZARDOUS
· IMDG	HYDROCARBONS, LIQUID, N.O.S. (Hydrocarbons C6-C7, n-alkanes, iso-alkanes, cyclenes, <5% n-hexane), MARINE POLLUTANT
· IATA	HYDROCARBONS, LIQUID, N.O.S.

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· **Transport hazard class(es)**· **DOT**· **Class**

3 Flammable liquids

· **Label**

3

· **ADR/RID/ADN**· **Class**

3 (F1) Flammable liquids

· **Label**

3

· **IMDG**· **Class**

3 Flammable liquids

· **Label**

3

· **IATA**· **Class**

3 Flammable liquids

· **Label**

3

· **Packing group**· **DOT, ADR/RID/ADN, IMDG, IATA**

II

· **Environmental hazards:**

Product contains environmentally hazardous substances: Hydrocarbons C6-C7, n-alkanes, iso-alkanes, cyclenes, <5% n-hexane

· **Marine pollutant:**

Yes (DOT)

Symbol (fish and tree)

· **Special marking (ADR/RID/ADN):**

Symbol (fish and tree)

· **Special precautions for user**

Warning: Flammable liquids

· **Hazard identification number (Kemler code):**

33

· **EMS Number:**

F-E,S-D

· **Stowage Category**

B

· **Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable.

· **Transport/Additional information:**· **DOT**· **Remarks:**

Special marking with the symbol (fish and tree).

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· ADR/RID/ADN	
· Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· 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

15 Regulatory information

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

No further relevant information available.

- **Sara**

- **Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

- **Section 313 (Specific toxic chemical listings):**

None of the ingredients is listed.

- **TSCA (Toxic Substances Control Act):**

540-97-6	Dodecamethylcyclhexasiloxane	ACTIVE
541-02-6	2,2,4,4,6,6,8,8,10,10-decamethylcyclopentasiloxane	ACTIVE
556-67-2	octamethylcyclotetrasiloxane	ACTIVE

- **Hazardous Air Pollutants**

None of the ingredients is listed.

- **Proposition 65**

- **Chemicals known to cause cancer:**

None of the ingredients is listed.

- **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

- **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

- **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

- **Carcinogenic categories**

- **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

- **TLV (Threshold Limit Value)**

None of the ingredients is listed.

- **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

- **Chemical safety assessment:** A Chemical Safety Assessment has been carried out.

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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.

· **Department issuing SDS:** Abteilung Produktsicherheit

· **Contact:**

· **Date of preparation / last revision** 04/19/2021 / 2.0

· **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

DOT: US Department of Transportation

IATA: International Air Transport Association

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)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

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

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

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 Acute 2: Hazardous to the aquatic environment - acute aquatic hazard – Category 2

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

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

US

1 Identification

- **Product identifier**
- **Trade name:** OEM TWIN AIR DIRT BIO REMOVER
- **Application of the substance / the mixture**
Only for proper handling.
Cleaning material/ Detergent
- **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
- **Information department:** msds@motorex.com
- **Emergency telephone number:**
USA + Canada: 1 800 424 9300 (Chemtrec Chemical Manufacturers Association, Arlington, VA 22209)

2 Hazard(s) identification

- **Classification of the substance or mixture**
Skin Irrit. 2 H315 Causes skin irritation.
Eye Dam. 1 H318 Causes serious eye damage.
- **Label elements**
- **GHS label elements**
The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS05

- **Signal word** Danger
- **Hazard-determining components of labeling:**
Anionic surfactant
disodium metasilicate
- **Hazard statements**
H315 Causes skin irritation.
H318 Causes serious eye damage.
- **Precautionary statements**
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).
P362+P364 Take off contaminated clothing and wash it before reuse.
P332+P313 If skin irritation occurs: Get medical advice/attention.
- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



Health = 3
Fire = 0
Reactivity = 0

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· HMIS-ratings (scale 0 - 4)

HEALTH	3	Health = *3
FIRE	0	Fire = 0
REACTIVITY	0	Reactivity = 0

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

3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** Mixture of the substances listed below with nonhazardous additions.

· Dangerous components:

EC number: 932-051-8	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. 2A, H319	10%
CAS: 28348-53-0 EINECS: 248-983-7	sodium cumenesulphonate Eye Irrit. 2A, 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%

4 First-aid measures

- **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.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed**
No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.

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- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.

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

- Use neutralizing agent.

- Dispose contaminated material as waste according to item 13.

- **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.

- **Protective Action Criteria for Chemicals**

- **PAC-1:**

497-19-8	sodium carbonate	7.6 mg/m ³
6834-92-0	disodium metasilicate	3.8 mg/m ³

- **PAC-2:**

497-19-8	sodium carbonate	83 mg/m ³
6834-92-0	disodium metasilicate	42 mg/m ³

- **PAC-3:**

497-19-8	sodium carbonate	500 mg/m ³
6834-92-0	disodium metasilicate	250 mg/m ³

7 Handling and storage

- **Handling:**

- **Precautions for safe handling** Thorough dedusting.

- **Information about protection against explosions and fires:** No special measures required.

- **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 receptacle tightly sealed.

- **Storage class:** 11

- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see section 7.

- **Control parameters**

- **Components 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.

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

- **Exposure controls**

- **Personal protective equipment:**

- **General protective and hygienic measures:**

- Keep away from foodstuffs, beverages and feed.

- Immediately remove all soiled and contaminated clothing.

- Wash hands before breaks and at the end of work.

- Do not inhale gases / fumes / aerosols.

- Avoid contact with the skin.

- Avoid contact with the eyes and skin.

- **Breathing equipment:**

- 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.

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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

9 Physical and chemical properties

Information on basic physical and chemical properties

General Information

Appearance:

Form:	Powder
Color:	White
Odor:	typical, characteristic
Odor threshold:	Not determined.

pH-value at 20 °C (68 °F):	9.8 (DIN 51369) 9.5 (10g/l H ₂ O) (DIN 51369)
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Change in condition

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	Undetermined.

Flash point:	Not applicable.
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Flammability (solid, gaseous):	Not determined.
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Decomposition temperature:	Not determined.
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Auto igniting:	Product is not selfigniting.
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Danger of explosion:	Product does not present an explosion hazard.
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Explosion limits:

Lower:	Not determined.
Upper:	Not determined.

Vapor pressure:	Not applicable.
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Density at 20 °C (68 °F):	0.8 g/cm ³ (6.676 lbs/gal) (ASTM D 4052)
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Relative density	Not determined.
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Vapor 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.
· Solvent separation test VOC content:	<5.00 %
· Other information	No further relevant information available.

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

· LD/LC50 values that are 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)

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	LOAEL	716-892 mg/kg/24h (mouse)
Dermal	LD50	5,000 mg/kg (rat)
Inhalative	LC50 / 4h	2.06 mg/l (rat)

· **Primary irritant effect:**

· **on the skin:** Irritant to skin and mucous membranes.

· **on the eye:**

Strong caustic effect.

Strong irritant with the danger of severe eye injury.

· **Sensitization:** No sensitizing effects known.

· **Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:

Irritant

· **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**

5989-27-5 (R)-p-mentha-1,8-diene

3

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

12 Ecological information

· **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)

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	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)
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)

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

· **Behavior in environmental systems:**

· **Bioaccumulative potential**

Anionic surfactant

Partition coefficient	0.7 [---] (log Kow) (Bioaccumulation)
Biologische Abbaubarkeit	94 % (28d) (Biodegradability) (EU Method C.4-A)

28348-53-0 sodium cumenesulphonate

Bioconcentration factor (BCF)	3.16 BCF (Bioaccumulation)
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· **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 bodies of water or drainage ditch undiluted or unneutralized.

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

· **Other adverse effects** No further relevant information available.

13 Disposal considerations

· **Waste treatment methods**

· **Recommendation:**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

Contact waste processors for recycling information.

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- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

- **UN-Number**
- **DOT, ADR/RID/ADN, ADN, IMDG, IATA** Void
- **UN proper shipping name**
- **DOT, ADR/RID/ADN, ADN, IMDG, IATA** Void
- **Transport hazard class(es)**
- **DOT, ADR/RID/ADN, ADN, IMDG, IATA**
- **Class** Void
- **Packing group**
- **DOT, ADR/RID/ADN, IMDG, IATA** Void
- **Environmental hazards:** Not applicable.
- **Special precautions for user** Not applicable.
- **Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not applicable.
- **UN "Model Regulation":** Void

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
No further relevant information available.
- **Sara**

· Section 355 (extremely hazardous substances):

None of the ingredients is listed.

· Section 313 (Specific toxic chemical listings):

None of the ingredients is listed.

· TSCA (Toxic Substances Control Act):

497-19-8	sodium carbonate	ACTIVE
28348-53-0	sodium cumenesulphonate	ACTIVE
6834-92-0	disodium metasilicate	ACTIVE

· Hazardous Air Pollutants

None of the ingredients is listed.

· Proposition 65

· Chemicals known to cause cancer:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

· Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

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- **Carcinogenic categories**

- **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

- **TLV (Threshold Limit Value)**

None of the ingredients is listed.

- **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

- **Chemical safety assessment:** A Chemical Safety Assessment has been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

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.

- **Department issuing SDS:** Abteilung Produktsicherheit

- **Contact:**

- **Date of preparation / last revision** 04/19/2021 / 3.0

- **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

DOT: US Department of Transportation

IATA: International Air Transport Association

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)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

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

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

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

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

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

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

US