



ALCA SOLUTION

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

1.1. Product identifier

Product Name : ALCA SOLUTION (Code S 205)

1.2. Relevant identified uses of the substance or mixture and uses advised against

Product use: Test solution for BN test

1.3. Details of the supplier of the safety data sheet

Company: Vecom Marine B.V. Phone : + 31 (0)10 5930 210
Mozartlaan 3 Email : sales@vecom-marine.com
3144 NA Maassluis
The Netherlands

1.4. Emergency telephone number

Emergency : +49 178 433 74 34 Contact: CONSULTANK Lutz Harder

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

| Acc. to Regulation (EC) 1272/2008 | |
|--|-------------------|
| Hazard class / Hazard category | Hazard statements |
| Skin Irritation, category 2 | H315 |
| Eye Irritation, category 1 | H318 |
| Aspiration, category 1 | H304 |
| Specific Target Organ Toxicity (repeated exposure), category 1 | H372 |

2.2. Label elements

Acc. to Regulation (EC) 1272/2008

Pictograms



GHS05
Corrosion



GHS08
Health hazard

Signal word: Danger

H statements

H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H372 Causes damage to central nervous system through prolonged or repeated exposure.

P statements

| | |
|--------------------|--|
| P260 | Do not breathe mist / vapour / spray. |
| P262 | Do not get on eyes, on skin, or on clothing. |
| P301 + P310 | IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. |
| P305 + P351 + P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P331 | Do NOT induce vomiting. |
| P501 | Dispose of contents/container to industrial incineration plant. |

2.3. Other hazards

Not classified as flammable, but combustible.

SECTION 3: Composition/information on ingredients

3.1. Substances

This product is a mixture.

3.2. Mixtures

| Component | CAS No | EINECS No | Reg. No | Classification (1272/2008/EC) | Content |
|--|------------|-----------|-----------------------|---|---------|
| Orthophosphoric acid | 7664-38-2 | 231-633-2 | 01-2119485924-24-xxxx | Skin Corr. 1B; H314 | 5-10% |
| Naphtha, low boiling, hydrogen treated | 64742-82-1 | 265-185-4 | 01-2119490979-12-xxxx | Asp. Tox. 1; H304 STOT RE 1; H372 | 10-20% |
| Fatty alcohol ethoxylate | 34398-01-1 | - | - | Skin Irrit. 2; H315 Eye Irrit. 2; H319 | 10-30% |

SECTION 4: First aid measures

4.1. Description of first aid measures

GENEREL INFORMATION

Remove contaminated clothing, including underwear and shoes, immediately.

EYES CONTACT

In case of contact with the eyes, rinse for several minutes with plenty of water with eyes held open. Immediately seek medical advice.

SKIN CONTACT

In case of contact with the skin, wash off immediately with soap and water. Remove contaminated clothing immediately and wash skin carefully. Seek medical advice.

INGESTION

Get medical advice immediately. Do NOT induce vomiting. Rinse out mouth and then drink plenty of water. May cause lung damage if swallowed.

INHALATION

If inhalation of mist, fume or vapour causes irritation of the respiratory tract, provide for fresh air. If symptoms persist, seek medical advice.

4.2. Most important symptoms and effects, both acute and delayed

Signs for eyes and skin irritation: burning sensation, redness, swelling.

Signs, that material enters lungs: coughing, choking, wheezing, difficulty in breathing, pulmonary blood pressure, dyspnea and/or fever.

The onset of respiratory symptoms may be delayed for several hours after exposure.

Overexposure may cause drowsiness, tiredness, dizziness, headache, and possibly loss of consciousness.

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

Treat symptomatically. There is no specific antidote.

INFORMATIONEN TO PHYSICIAN:

High risk of chemical pneumonia if aspirated during and after ingestion.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Extinguishing media: alcohol-resistant foam, dry fire-extinguishing media or Water spray jet.

MUST NOT BE USED: full water jet.

5.2. Special hazards arising from the substance or mixture

Dangerous decomposition products: acidic vapours, carbon dioxide, carbon monoxide.

5.3. Advice for firefighters

Fire in closed rooms must be fought from trained personnel wearing suitable breathing apparatus.

Further information: remove container from fire area and use water spray to keep containers cool.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions: See Section 8 „Protective equipment“.

Ensure adequate ventilation.

6.2. Environmental precautions

Turn leaking containers leak-side up to prevent the escape of liquid. Do not allow to enter drains/surface waters/groundwater.

6.3. Methods and material for containment and cleaning up

Pick up with absorbent material (e.g. sand, sawdust, universal binder). Keep appropriate amount of suitable material ready.

6.4. Reference to other sections

Regarding disposal see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Ensure that there is sufficient ventilation of the area. Avoid direct contact with the product. Keep away from sources of ignition – do not smoke.

7.2. Conditions for safe storage, including any incompatibilities

Keep container tightly closed and store in a cool, well ventilated place.

Storage class (Germany): 12

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

| Component (CAS No) | Source | AGW | Remark |
|---|----------|-----------------------|---|
| Naphtha, low boiling, hydrogen treated (64742-82-1) | TRGS 900 | 500 mg/m ³ | Excursion factor 2 Duration 15 min, mean; 4 times per shift; interval 1 hour Category II - Substances with systemic effects |

8.2. Exposure controls

Pay attention to measures in section 7.

Personal protection equipment:

Respiratory protection: Respiratory protection not necessary in well ventilated rooms. Respiratory protection is required when vapours/aerosols are generated. The employment of respiratory equipment must be strictly in accordance with the manufacturer's instructions and any statutory requirements governing its selection and use.

Hand protection: Gloves, Type MAPA Professional Ultranitil 491 or comparable.

Eye protection: Eye glasses with side protection.

Skin protection: Use protective clothing if there is a risk of direct contact or splashes.

Hygiene measures

Do not eat, drink or smoke at work.

Wash hands before breaks and after work.

Take off contaminated clothing.

Do not breathe mist/vapour/spray.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|---------------------------|---|
| Appearance | : liquid |
| Colour | : colourless |
| Odour | : specific, like hydro carbon |
| pH (20°C) | : 2,1 (when diluted with water 1:50) |
| Melting Point | : n.d. |
| Boiling Point/range | : n.d. |
| Flash Point | : > 64°C |
| Auto-ignition temperature | : not established |
| Explosion Limits | : upper: -; lower: - |
| Vapour Pressure | : not established (20°C) |
| Relative Density | : approx. 0,95 g/cm ³ (20°C) |
| Solubility in water | : emulsifies |
| Other solubilities | : soluble in many organic solvents |

9.2. Other information

No further information.

SECTION 10: Stability and reactivity

10.1. Reactivity

No special information.

10.2. Chemical stability

Stable under normal conditions of use.

10.3. Possibility of hazardous reactions

Stable under normal conditions of use.

10.4. Conditions to avoid

Stable under normal conditions of storage. Keep away from heat and sources of ignition.

10.5. Incompatible materials

Exothermic reaction with alkali (lye), concentrated.

10.6. Hazardous decomposition products

No hazardous decomposition products if stored and handled as prescribed.

Incomplete combustion/thermal decomposition will generate acidic fumes, carbon dioxide and carbon monoxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

LD50 (oral, rat) No specific test data available.

Corrosivity/Irritation

Skin Irritating.

Eye Irritating.

After inhalation Drowsiness, difficulties in breathing.

Sensitisation

Not known to be a sensitizer.

Mutagenicity

No mutagenic effects known on today's state of knowledge.

Carcinogenicity

No carcinogenic effects known on today's state of knowledge.

Reproduction toxicity

No reproduction toxic effects known on today's state of knowledge.

Specific Target Organ Toxicity, single exposure

No effects known on today's state of knowledge.

Specific Target Organ Toxicity, repeated exposure

Causes damage to central nervous system through prolonged or repeated exposure.

Frequent persistent contact with the skin causes skin irritation, dryness, cracking and dermatitis.

Aspiration hazard

May be fatal if swallowed and enters airways.

SECTION 12: Ecological information**12.1. Toxicity**

No data available.

12.2. Persistence and degradability

The organic components of the preparation are inherently biodegradable (according to OECD criteria).

12.3. Bioaccumulative potential

No data available.

12.4. Mobility in soil

Liquid. Not water soluble.

12.5. Results of PBT and vPvB assessment

No data available.

12.6. Other adverse effects

Hazardous effects caused by pH shift.

Quantitative data with respect to ecological effects of the product are not available.

Water hazard class (Germany): WGK 1

SECTION 13: Disposal considerations**13.1. Waste treatment methods**

Final allocation of waste key depends on product application. Has to be done in collaboration with waste disposal contractor.

Dispose of via an authorized person/ licensed waste disposal contractor in accordance with local regulations. Incineration may be carried out under controlled conditions provided that local regulations for emissions are met.

At sea, used or unwanted product should be stored for eventual disposal by a licensed waste disposal contractor.

SECTION 14: Transport information

| | Road transport ADR | Railway transport RID | Inland waterway ADN | Maritime transport IMDG | Air transport IATA |
|--------------------------------------|-----------------------|--------------------------|------------------------|----------------------------|-----------------------|
| 14.1. UN No | Not restricted | | | | |
| 14.2. Proper shipping name | Not restricted | | | | |

| | Road transport ADR | Railway transport RID | Inland waterway ADN | Maritime transport IMDG | Air transport IATA |
|---|------------------------|--------------------------|------------------------|----------------------------|-----------------------|
| 14.3. Class | Not restricted | | | | |
| 14.4. Packing Group | Not restricted | | | | |
| 14.5. Environmental hazards | No further information | | | | |
| 14.6. Special pre-caution for user | No further information | | | | |
| 14.7. Transport in bulk acc. to MARPOL 73/78 und IBC Code | No further information | | | | |

SECTION 15: Regulatory information

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

National regulations

Water hazard class (Germany) WGK: 1

Information acc. to Directive 1999/13/EC (VOC): VOC content = 720 g/l

15.2. Chemical safety assessment

For the product no chemical safety assessment is available.

SECTION 16: Other information

Last revision

General review. No changes compared to previous version.

This version replaces all previous versions.

Used abbreviations

n.a. not applicable

n.d. not determined

Literature references and sources of information

Regulation (EC) 1907/2006 (REACH) in valid version

Regulation (EC) 1272/2008 in valid version

National Exposure Limit Values in valid version

Transport regulation acc. to ADR, RID, ADN, IMDG, IATA in valid version

Information from supplier and internal data

List of relevant hazard statements from section 2 and 3 (GHS classification)

H304 May be fatal if swallowed and enters airways.

H314 Causes severe skin burns and eye damage.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H372 Causes damage to central nervous system through prolonged or repeated exposure.

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. Each user is responsible to determine that the product is suitable for the users intended application and that such usage complies with applicable and administrative rules and guidelines. No statement made in this data sheet shall be construed as a permission, recommendation or authorisation given or implied to practise any patented invention without a valid license. VECOM MARINE shall not be held liable for any abnormal use of the material, from any failure to adhere to recommendations, or from any hazards inherent in the nature of the material.

Copyright 2019 by Vecom Marine B.V. , Maassluis, The Netherlands. License granted to make unlimited paper copies for internal use only.



Saltesmo

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

1.1. Product identifier

Product Name : Saltesmo Reagent Test Paper (Code S 154)

1.2. Relevant identified uses of the substance or mixture and uses advised against

Product use: salt detection

1.3. Details of the supplier of the safety data sheet

Company: Vecom Marine B.V. Phone : + 31 (0)10 5930 210
Mozartlaan 3 Email : sales@vecom-marine.com
3144 NA Maassluis
The Netherlands

1.4. Emergency telephone number

Emergency : +49 178 433 74 34 Contact: CONSULTANK Lutz Harder

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

| Acc. to Regulation (EC) 1272/2008 | |
|-----------------------------------|-------------------|
| Hazard class / Hazard category | Hazard statements |
| Not classified | |

2.2. Label elements

Acc. to Regulation (EC) 1272/2008

No labelling required

2.3. Other hazards

With our today's knowledge and experience we declare, that this product does not contain any dangerous substances, which according to valid EC regulations has to be classified as hazardous material. This covers the present concentration as well as the total quantity in each packaging. One single packaging has a very low potential of risk.

SECTION 3: Composition/information on ingredients

3.1. Substances

This product is a mixture.

3.2. Mixtures

Test paper, impregnated with a silver compound, which must not be classified.
Not restricted according to EC regulations.

SECTION 4: First aid measures

4.1. Description of first aid measures

EYES CONTACT

No special measures required.

SKIN CONTACT

No special measures required.

INGESTION

No special measures required.

INHALATION

No special measures required.

4.2. Most important symptoms and effects, both acute and delayed

No special information.

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

Treat symptomatically. There is no specific antidote.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Extinguishing media : alcohol-resistant foam, dry fire-extinguishing media or Water spray jet.

Fit extinguishing media with surroundings.

5.2. Special hazards arising from the substance or mixture

Dangerous decomposition products : no information.

5.3. Advice for firefighters

Synchronise extinguishing measures to the surroundings. Packagings burns like paper or plastics.

Cool undamaged container with water. Remove them from hazard zone.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions: See Section 8 „Protective equipment“.

6.2. Environmental precautions

Do not allow to enter drains/surface waters/groundwater.

6.3. Methods and material for containment and cleaning up

Take up mechanically and provide for disposal.

6.4. Reference to other sections

Regarding disposal see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Information on safe handling are given in technical documentation.

7.2. Conditions for safe storage, including any incompatibilities

The original product package allows a safe storage. Keep container tightly closed.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No information on exposure limit values.

8.2. Exposure controls

Pay attention to measures in section 7.

Personal protection equipment:

Respiratory protection: Respiratory protection not necessary.

Hand protection: Not required.

Eye protection: Not required.

Skin protection: Normal working clothing.

Hygiene measures

Do not eat, drink or smoke at work. Keep away from food, drinks and animal feedingstuffs. Wash hands before breaks and after work.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|---------------------------|----------------------|
| Appearance | : test paper |
| Colour | : - |
| Odour | : without |
| pH (20°C) | : n.a. |
| Melting Point | : n.a. |
| Boiling Point/range | : n.a. |
| Flash Point | : n.d. |
| Auto-ignition temperature | : not established |
| Explosion Limits | : upper: -; lower: - |
| Vapour Pressure (20°C) | : n.a. |
| Relative Density | : n.d. |
| Solubility in water | : n.a. |
| Dyn. viscosity | : n.a. |

9.2. Other information

No further information.

SECTION 10: Stability and reactivity

10.1. Reactivity

No decomposition at recommended use.

10.2. Chemical stability

Stable under normal conditions of use.

10.3. Possibility of hazardous reactions

Stable under normal conditions of use.

10.4. Conditions to avoid

Stable under normal conditions of storage.

10.5. Incompatible materials

None.

10.6. Hazardous decomposition products

None.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

LD 50 No data available.

Irritation

Not known.

Sensitisation

Not known to be a sensitizer.

Repeated dose toxicity

Not known.

Carcinogenicity

No carcinogenic effects known on today's state of knowledge.

Mutagenicity

No mutagenic effects known on today's state of knowledge.

Reproduction toxicity

No reproduction toxic effects known on today's state of knowledge.

Specific Target Organ Toxicity, single exposure

No effects known on today's state of knowledge.

Specific Target Organ Toxicity, repeated exposure

No effects known on today's state of knowledge.

Aspiration hazard

No information available.

SECTION 12: Ecological information**12.1. Toxicity**

No data available.

12.2. Persistence and degradability

The organic components of the preparation are inherently biodegradable (according to OECD criteria).

12.3. Bioaccumulative potential

No data available.

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

No data available.

12.6. Other adverse effects

Quantitative data with respect to ecological effects of the product are not available.

SECTION 13: Disposal considerations**13.1. Waste treatment methods**

Final allocation of waste key depends on product application. Must be done in collaboration with waste disposal contractor.

Recommendation: Pay attention to national regulations regarding collection and disposal of waste from laboratories.

SECTION 14: Transport information

| | Road transport ADR | Railway transport RID | Inland waterway ADN | Maritime transport IMDG | Air transport IATA |
|--|------------------------|--------------------------|------------------------|----------------------------|-----------------------|
| 14.1. UN No | Not restricted | | | | |
| 14.2. Proper shipping name | Not restricted | | | | |
| 14.3. Class | Not restricted | | | | |
| 14.4. Packing Group | Not restricted | | | | |
| 14.5. Environmental hazards | No further information | | | | |
| 14.6. Special pre-caution for user | No further information | | | | |

| | Road transport ADR | Railway transport RID | Inland waterway ADN | Maritime transport IMDG | Air transport IATA |
|---|------------------------|--------------------------|------------------------|----------------------------|-----------------------|
| 14.7. Transport in bulk acc. to MARPOL 73/78 und IBC Code | No further information | | | | |

SECTION 15: Regulatory information

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

National regulations

No further information.

15.2. Chemical safety assessment

For the product no chemical safety assessment is available.

SECTION 16: Other information

Last revision

General review. No changes compared to previous version.

This version replaces all previous versions.

Used abbreviations

n.a. not applicable

n.d. not determined

Literature references and sources of information

Regulation (EC) 1907/2006 (REACH) in valid version

Regulation (EC) 1272/2008 in valid version

National Exposure Limit Values in valid version

Transport regulation acc. to ADR, RID, ADN, IMDG, IATA in valid version

Information from supplier and internal data

List of relevant hazard statements from section 2 and 3 (GHS classification)

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. Each user is responsible to determine that the product is suitable for the users intended application and that such usage complies with applicable and administrative rules and guidelines. No statement made in this data sheet shall be construed as a permission, recommendation or authorisation given or implied to practise any patented invention without a valid license. VECOM MARINE shall not be held liable for any abnormal use of the material, from any failure to adhere to recommendations, or from any hazards inherent in the nature of the material.

Copyright 2019 by Vecom Marine B.V. , Maassluis, The Netherlands. License granted to make unlimited paper copies for internal use only.



SOLUTION W

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

1.1. Product identifier

Product Name : Solution W

1.2. Relevant identified uses of the substance or mixture and uses advised against

Product use: Detergent for salt Test

1.3. Details of the supplier of the safety data sheet

Company: Vecom Marine B.V. Phone : + 31 (0)10 5930 210
Mozartlaan 3 Email : sales@vecom-marine.com
3144 NA Maassluis
The Netherlands

1.4. Emergency telephone number

Emergency : +49 178 433 74 34 Contact: CONSULTANK Lutz Harder

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

| Acc. to Regulation (EC) 1272/2008 | |
|-----------------------------------|-------------------|
| Hazard class / Hazard category | Hazard statements |
| Not classified | |

2.2. Label elements

Acc. to Regulation (EC) 1272/2008

No complete labelling required

P statements

P102 Keep out of reach of children.
P262 Do not get in eyes, on skin, or on clothing.

2.3. Other hazards

No further information.

SECTION 3: Composition/information on ingredients

3.1. Substances

This product is a mixture.

3.2. Mixtures

Mixture of inert ingredients in water.

SECTION 4: First aid measures

4.1. Description of first aid measures

EYES

Rinse eye with copious quantities of water ensuring eyelids are held open.

SKIN

Wash skin thoroughly with water and soap. Take off contaminated clothing.

INGESTION

Drinking of copious quantities of water.

INHALATION

Remove to fresh air.

4.2. Most important symptoms and effects, both acute and delayed

There may be irritation and redness.

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

Treat symptomatically. There is no specific antidote.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Extinguishing media: Fit to the surroundings.

5.2. Special hazards arising from the substance or mixture

No special information.

5.3. Advice for fire-fighters

Fire fighting measures have to be fitted to the surroundings.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions: See Section 8 „Protective equipment“.

6.2. Environmental precautions

Prevent material from reaching sewage system, holes and cellars.

6.3. Methods and material for containment and cleaning up

Take up mechanical or with inert material like sand, dry powder, vermiculite, etc. Collect spills in suitable and marked container.

6.4. Reference to other sections

Regarding disposal see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid direct contact with the product.

7.2. Conditions for safe storage, including any incompatibilities

Store in cool and well-ventilated place. Keep container tightly closed.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

At the moment there are no occupational limit values.

8.2. Exposure controls

Pay attention to measures in section 7.

Personal protection equipment:

Respiratory protection: Not required.

Hand protection: If skin contact is likely, wear impervious protective gloves (PVC).

Eye protection: Goggles.

Skin protection: Normal clothing is sufficient.

Hygiene measures

Do not eat, drink or smoke at work. Keep away from food, drinks and feed.

Wash hands before breaks and after work.

Take off contaminated clothing. Avoid contact to eyes and skin.

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

| | |
|---------------------------|-------------------------------|
| Appearance | : liquid |
| Colour | : colourless |
| Odour | : odourless |
| pH (20°C) | : n.a. |
| Melting Point | : n.a. |
| Boiling Point/range | : n.d. |
| Flash Point | : n.a. |
| Auto-ignition temperature | : n.d. |
| Explosion Limits | : lower: n.a.; upper: n.a. |
| Vapour Pressure | : n.d. |
| Relative Density | : n.d. |
| Solubility in water | : miscible in all proportions |

9.2. Other information

| | |
|------------------|---------------|
| Evaporation rate | : slow |
| Viscosity | : non-viscous |

SECTION 10: Stability and reactivity**10.1. Reactivity**

No special information.

10.2. Chemical stability

Stable at normal conditions of use.

10.3. Possibility of hazardous reactions

Stable under normal conditions of use.

10.4. Conditions to avoid

Keep away from heat and sources of ignition.

10.5. Incompatible materials

Avoid contact with strong oxidising agents.

10.6. Hazardous decomposition products

There are none expected at normal use.

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

| | |
|---------------------|------|
| LD 50 (oral) | n.d. |
| LD 50 (dermal) | n.d. |
| LC 50 (inhal.) (4h) | n.d. |

Irritation

Slight irritation to skin and eyes possible.

Sensitisation

Not known to be a sensitizer.

Repeated dose toxicity

No data available.

Carcinogenicity

No data available.

Mutagenicity

No data available.

Reproduction toxicity

No data available.

Specific Target Organ Toxicity, single exposure

No effects known on today's state of knowledge.

Specific Target Organ Toxicity, repeated exposure

No effects known on today's state of knowledge.

Aspiration hazard

No information available.

SECTION 12: Ecological information**12.1. Toxicity**

Fish: LC50: n.d.

Crusteans: EC50: n.d.

Algae: IC50: n.d.

12.2. Persistence and degradability

This product is biodegradable.

12.3. Bioaccumulative potential

This material has not the potential to bioaccumulate.

12.4. Mobility in soil

Readily absorbed into soil. Non-volatile.

12.5. Results of PBT and vPvB assessment

No data available.

12.6. Other adverse effects

No further data available.

SECTION 13: Disposal considerations**13.1. Waste treatment methods**

Where possible arrange for product to be recycled.

Dispose of via an authorized person/ licensed waste disposal contractor in accordance with local regulations. Incineration may be carried out under controlled conditions provided that local regulations for emissions are met.

At sea, used or unwanted product should be stored for eventual disposal by a licensed waste disposal contractor.

Container: Drain container thoroughly and dispose to a licensed disposal contractor.

SECTION 14: Transport information

| | Road transport ADR | Railway transport RID | Inland waterway ADN | Maritime transport IMDG | Air transport IATA |
|---|------------------------|--------------------------|------------------------|----------------------------|-----------------------|
| 14.1. UN No | Not restricted | | | | |
| 14.2. Proper shipping name | Not restricted | | | | |
| 14.3. Class | Not restricted | | | | |
| 14.4. Packing Group | Not restricted | | | | |
| 14.5. Environmental hazards | No further information | | | | |
| 14.6. Special pre-caution for user | No further information | | | | |
| 14.7. Transport in bulk acc. to MARPOL 73/78 und IBC Code | No further information | | | | |

SECTION 15: Regulatory information

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

National regulations

No further information

15.2. Chemical safety assessment

For the product no chemical safety assessment is available.

SECTION 16: Other information

Last revision

General review. No changes compared to previous version.

This version replaces all previous versions.

Used abbreviations

n.a. not applicable

n.d. not determined

Literature references and sources of information

Regulation (EC) 1907/2006 (REACH) in valid version

Regulation (EC) 1272/2008 in valid version

National Exposure Limit Values in valid version

Transport regulation acc. to ADR, RID, ADN, IMDG, IATA in valid version

Information from supplier and internal data

List of relevant hazard statements from section 2 and 3 (GHS classification)

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. Each user is responsible to determine that the product is suitable for the users intended application and that such usage complies with applicable and administrative rules and guidelines. No statement made in this data sheet shall be construed as a permission, recommendation or authorisation given or implied to practise any patented invention without a valid license. VECOM MARINE shall not be held liable for any abnormal use of the material, from any failure to adhere to recommendations, or from any hazards inherent in the nature of the material.

Copyright 2019 by Vecom Marine B.V. , Maassluis, The Netherlands. License granted to make unlimited paper copies for internal use only.



TEST KIT CLEANER

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

1.1. Product identifier

Product Name : Test Kit Cleaner (Code S 105)

1.2. Relevant identified uses of the substance or mixture and uses advised against

Product use: Cleaning agent for test equipment

1.3. Details of the supplier of the safety data sheet

Company: Vecom Marine B.V. Phone : + 31 (0)10 5930 210
Mozartlaan 3 Email : sales@vecom-marine.com
3144 NA Maassluis
The Netherlands

1.4. Emergency telephone number

Emergency : +49 178 433 74 34 Contact: CONSULTANK Lutz Harder

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

| Acc. to Regulation (EC) 1272/2008 | |
|-----------------------------------|-------------------|
| Hazard class / Hazard category | Hazard statements |
| Aspiration, category 1 | H304 |

2.2. Label elements

Acc. to Regulation (EC) 1272/2008



Pictograms

GHS08
Health hazard

Signal word: Danger

H statements

H304 May be fatal if swallowed and enters airways.
EUH066 Repeated exposure may cause skin dryness or cracking.

P statements

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
P331 Do NOT induce vomiting.
P405 Store locked up.
P501 Dispose of contents/container to authorized waste disposal plant.

2.3. Other hazards

Results of PBT and vPvB evaluation see chapter 12.5.

SECTION 3: Composition/information on ingredients

3.1. Substances

This product is a mixture.

3.2. Mixtures

| Component | CAS No | EINECS No | Reg. No | Classification (1272/2008/EC) | Content |
|---|--------|-----------|-----------------------|-------------------------------|---------|
| Hydro carbons C10-C13, n-alkanes, iso-alkanes, cyclic, < 2% aromatics | - | 918-481-9 | 01-2119457273-39-xxxx | Asp. Tox. 1; H304 | < 100% |

SECTION 4: First aid measures

4.1. Description of first aid measures

GENEREL INFORMATION

Move victim out of danger zone. Remove contaminated clothing, immediately. First aider: Pay attention to self-protection!

EYES CONTACT

In case of contact with the eyes, rinse for several minutes with plenty of water with eyes held open. Obtain medical advice urgently if any pain or redness develops or persists.

SKIN CONTACT

Instantly wash with water and soap and rinse thoroughly. Remove contaminated clothing immediately and wash skin carefully. In case of skin irritation, seek medical treatment.

INGESTION

Get medical advice immediately. Do NOT induce vomiting. Rinse out mouth and then drink plenty of water. Spit the liquid out again.

INHALATION

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist. In case of unconsciousness bring patient into recovery position for transport. If breathing is irregular or stopped, administer artificial respiration.

4.2. Most important symptoms and effects, both acute and delayed

Signs for eyes and skin irritation: burning sensation, redness, swelling. Degreases the skin and makes it dry and rough. Prolonged or repeated skin contact may cause dermatitis.

Signs, that material enters lungs: coughing, choking, wheezing, difficulty in breathing, pulmonary blood pressure, dyspnea and/or fever.

The onset of respiratory symptoms may be delayed for several hours after exposure.

Overexposure may cause drowsiness, tiredness, dizziness, headache, and possibly loss of consciousness.

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

Treat symptomatically. There is no specific antidote.

INFORMATIONEN TO PHYSICIAN:

High risk of chemical pneumonia if aspirated during and after ingestion.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Extinguishing media : alcohol-resistant foam, dry fire-extinguishing media or Water spray jet.

MUST NOT BE USED: Full water jet.

5.2. Special hazards arising from the substance or mixture

Vapours are heavier than air and spread on the ground. Vapours may form explosive mixtures with air.

Dangerous decomposition products: carbon monoxide, carbon dioxide.

5.3. Advice for firefighters

Fire in closed rooms must be fought from trained personnel wearing suitable breathing apparatus. In case of fire: Wear self-contained breathing apparatus. Wear full chemical protective clothing. Further information: remove container from fire area and use water spray to keep containers cool.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions: See Section 8 „Protective equipment“. Take away unprotected people. Ensure adequate ventilation. Do not breathe gas/fume/vapour/aerosols. Avoid contact with eyes and skin. Keep away from sources of ignition - No smoking.

6.2. Environmental precautions

Prevent material from reaching sewage system, holes and cellars. Inform respective authorities in case product reaches water or sewage system.

6.3. Methods and material for containment and cleaning up

Absorb with liquid-binding material (like sand, dry powder, vermiculite, etc.). Dispose of contaminated material as waste according to item 13. Ensure adequate ventilation. Clean contaminated area carefully.

6.4. Reference to other sections

Regarding disposal see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Ensure that there is sufficient ventilation of the area, especially in closed rooms. Avoid direct contact with the product.

Product is combustible, but not slightly flammable. Keep away from sources of ignition – do not smoke. Protect against heat. Protect against electrostatic charges. Vapours are heavier than air and spread on the ground. Vapours may form explosive mixtures with air. Avoid generation of aerosols.

Keep away from food, drink and animal feedingstuffs.

7.2. Conditions for safe storage, including any incompatibilities

Keep container tightly closed and store in a cool, well ventilated place. Store in original container only. Store away from oxidising agents. Protect from heat and direct sunlight.

Storage class (Germany): 10

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

| Component (CAS No) | Source | AGW | Remark |
|---|----------|------------------------|---|
| Hydrocarbon mixtures, used as solvent (solvent-based hydrocarbons), additive-free | TRGS 900 | 600mg/m ³ , | Excursion factor 2; Duration 15 min, mean; 4 times per shift; interval 1 hour Category II - Substances with systemic effects |

8.2. Exposure controls

Pay attention to measures in section 7.

Personal protection equipment:

Respiratory protection: Use breathing protection in case of insufficient ventilation (filter A, brown, organic gases and vapours with boiling point >65°C).

Hand protection: Gloves (recommended material: nitrile 0,45 mm). The glove manufacturer's information on permeability and breakthrough times must be taken into account. Protective gloves should be replaced at first signs of wear. Preventive skin protection through the use of skin protection products is recommended.

Eye protection: Eye glasses with side protection.

Skin protection: Use protective clothing if there is a risk of direct contact or splashes.

Hygiene measures

Do not eat, drink or smoke at work. Keep away from food, drinks and feedingstuffs.

Wash hands before breaks and after work.

Take off contaminated clothing. Avoid contact to eyes and skin.

Do not breathe mist/vapour/spray.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|-------------------------------|--|
| Appearance : | liquid |
| Colour : | colourless |
| Odour ; | like hydro carbon |
| pH (20°C) : | n.a. |
| Melting Point : | n.d. |
| Boiling Point/range : | 175 – 220°C |
| Flash Point : | > 61°C |
| Auto-ignition temperature : | > 200°C |
| Explosion Limits : | lower: 0.5 Vol%; upper: 7.0 Vol% |
| Vapour Pressure : | 0.6 mbar (25°C) |
| Relative Density : | 0.770 – 0.815 g/cm ³ (20°C) |
| Solubility in water (20°C) : | not miscible or difficult to mix |
| Partition coefficient | |
| n-octanol/water : | no data available |
| Thermic decomposition : | no data available |
| kinematics viscosity (20°C) : | 1.0 – 2.5 mm ² /s |
| Explosion hazard : | The product is not explosive. The formation of explosive vapor-air mixtures is possible. |
| Oxidizing properties : | none known |

9.2. Other information

No further information.

SECTION 10: Stability and reactivity

10.1. Reactivity

No special information.

10.2. Chemical stability

Stable under normal conditions of use.

10.3. Possibility of hazardous reactions

Vapours may form explosive mixtures with air.

10.4. Conditions to avoid

Protect against direct sunlight. Keep away from heat and sources of ignition.

10.5. Incompatible materials

Avoid contact with strong oxidising agents.

10.6. Hazardous decomposition products

Thermal decomposition will generate carbon monoxide and carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

| Component | Route | Dose | Species | Remark |
|---|-----------|----------------------|-------------|----------|
| Hydro carbons C10-C13, n- alkanes, iso- alkanes, cyclic, < 2% aromatics | oral | LD50 > 5000 mg/kg | Rat | |
| | dermal | LD50 > 5000 mg/kg | Rabbit | |
| | inhalativ | LC50 > 5 mg/L | Rat, vapour | OECD 403 |

Irritation

Repeated or prolonged exposure may cause skin irritation and dermatitis due to degreasing properties.
Irritation to eyes possible, but not relevant for classification.

Sensitisation

Not known to be a sensitizer.

Carcinogenicity

No carcinogenic effects known on today's state of knowledge.

Mutagenicity

No mutagenic effects known on today's state of knowledge.

Reproduction toxicity

No reproduction toxic effects known on today's state of knowledge.

Specific Target Organ Toxicity, single exposure

No effects known on today's state of knowledge.

Specific target Organ Toxicity, repeated exposure

No effects known on today's state of knowledge.

Aspiration hazard

May be fatal if swallowed and enters airways.

SECTION 12: Ecological information

12.1. Toxicity

| Component | Aquatic toxicity | Dose | Species | Remark |
|---|------------------|---------------------------|--------------------------------------|--------|
| Hydro carbons C10-C13, n- alkanes, iso- alkanes, cyclic, < 2% aromatics | Fish | LL0 = 1000 mg/L (96 h) | Oncorhynchus mykiss | |
| | Daphnia | EL0 = 1000 mg/L (48 h) | Daphnia magna | |
| | Algae | EL0 = 1000 mg/L (72 h) | Pseudokirchne- riella subcapitata | |

| Component | Chronic toxicity | Dose | Species | Remark |
|---|------------------|-----------------------------|------------------------|--------|
| Hydro carbons C10-C13, n- alkanes, iso- alkanes, cyclic, < 2% aromatics | Fish | NOELR = 0,10 mg/L (28 d) | Oncorhynchus mykiss | |
| | Daphnia | NOELR = 0,18 mg/L (21 d) | Daphnia magna | |

12.2. Persistence and degradability

Persistence:

| Component | Result |
|---|--|
| Hydro carbons C10-C13, n-alkanes, iso-alkanes, cyclic, < 2% aromatics | Transformation by photolysis is not expected to be significant. Transformation by hydrolysis is not expected to be significant. |

Biodegradability:

| Component | Result |
|---|--|
| Hydro carbons C10-C13, n-alkanes, iso-alkanes, cyclic, < 2% aromatics | 80 % (Exposure: 28 d) Easily biodegradable. |

12.3. Bioaccumulative potential

| Component | Evaluation |
|---|----------------|
| Hydro carbons C10-C13, n-alkanes, iso-alkanes, cyclic, < 2% aromatics | Not determined |

12.4. Mobility in soil

| Component | Evaluation |
|---|---|
| Hydro carbons C10-C13, n-alkanes, iso-alkanes, cyclic, < 2% aromatics | Slightly volatile, it is quickly dispersed in the air. Presumably there is no distribution to the sediment layer and sewage solids. |

12.5. Results of PBT and vPvB assessment

This mixture does not contain components in concentrations > 0.1% or higher, which are classified as either persistent, bioaccumulating and toxic (PBT) or very persistent and very bioaccumulating (vPvB).

12.6. Other adverse effects

Must not reach drainage ditch or sewage water.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Dispose of in accordance with local regulations. Must not be disposed together with rubbish. Avoid entering sewage system.

Final allocation of waste key depends on product application. Has to be done in collaboration with waste disposal contractor.

SECTION 14: Transport information

| | Road transport ADR | Railway transport RID | Inland waterway ADN | Maritime transport IMDG | Air transport IATA |
|---------------------------------------|------------------------|--------------------------|------------------------|----------------------------|-----------------------|
| 14.1. UN No | Not restricted | | | | |
| 14.2. Proper shipping name | Not restricted | | | | |
| 14.3. Class | Not restricted | | | | |
| 14.4. Packing Group | Not restricted | | | | |
| 14.5. Environmental hazards | No further information | | | | |

| | Road transport ADR | Railway transport RID | Inland waterway ADN | Maritime transport IMDG | Air transport IATA |
|---|------------------------|--------------------------|------------------------|----------------------------|-----------------------|
| 14.6. Special pre-caution for user | No further information | | | | |
| 14.7. Transport in bulk acc. to MARPOL 73/78 und IBC Code | No further information | | | | |

SECTION 15: Regulatory information

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

National regulations

Water hazard class (Germany) WGK: 1

15.2. Chemical safety assessment

For the following substance a chemical safety assessment was done.

Hydro carbons C10-C13, n-alkanes, iso-alkanes, cyclic, < 2% aromatics

SECTION 16: Other information

Last revision

General review. No changes compared to previous version.

This version replaces all previous versions.

Used abbreviations

n.a. not applicable

n.d. not determined

Literature references and sources of information

Regulation (EC) 1907/2006 (REACH) in valid version

Regulation (EC) 1272/2008 in valid version

National Exposure Limit Values in valid version

Transport regulation acc. to ADR, RID, ADN, IMDG, IATA in valid version

Information from supplier and internal data

List of relevant hazard statements from section 2 and 3 (GHS classification)

H304 May be fatal if swallowed and enters airways.

EUH066 Repeated exposure may cause skin dryness or cracking.

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. Each user is responsible to determine that the product is suitable for the users intended application and that such usage complies with applicable and administrative rules and guidelines. No statement made in this data sheet shall be construed as a permission, recommendation or authorisation given or implied to practise any patented invention without a valid license. VECOM MARINE shall not be held liable for any abnormal use of the material, from any failure to adhere to recommendations, or from any hazards inherent in the nature of the material.

Copyright 2019 by Vecom Marine B.V. , Maassluis, The Netherlands. License granted to make unlimited paper copies for internal use only.



WA-SOL Activator

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

1.1. Product identifier

Product Name : WA-SOL Activator (Code S 300)

1.2. Relevant identified uses of the substance or mixture and uses advised against

Product use: Reagent for Mineral Oil Testkits

1.3. Details of the supplier of the safety data sheet

Company: Vecom Marine B.V.
Mozartlaan 3
3144 NA Maassluis
The Netherlands

Phone : + 31 (0)10 5930 210
Email : sales@vecom-marine.com

1.4. Emergency telephone number

Emergency : +49 178 433 74 34

Contact: CONSULTANK Lutz Harder

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

| Acc. to Regulation (EC) 1272/2008 | |
|-----------------------------------|-------------------|
| Hazard class / Hazard category | Hazard statements |
| Aspiration, category 1 | H304 |

2.2. Label elements

Acc. to Regulation (EC) 1272/2008

Pictograms



GHS08
Health hazard

Signal word: Danger

H statements

H304 May be fatal if swallowed and enters airways.
EUH066 Repeated exposure may cause skin dryness or cracking.

P statements

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
P331 Do NOT induce vomiting.
P405 Store locked up.
P501 Dispose of contents/container to authorized waste disposal plant.

2.3. Other hazards

Results of PBT and vPvB evaluation see chapter 12.5.

SECTION 3: Composition/information on ingredients

3.1. Substances

This product is a mixture.

3.2. Mixtures

| Component | CAS No | EINECS No | Reg. No | Classification (1272/2008/EC) | Content |
|---|--------|-----------|-----------------------|-------------------------------|---------|
| Hydro carbons C10-C13, n-alkanes, iso-alkanes, cyclic, < 2% aromatics | - | 918-481-9 | 01-2119457273-39-xxxx | Asp. Tox. 1; H304 | < 100% |

SECTION 4: First aid measures

4.1. Description of first aid measures

GENERAL INFORMATION

Move victim out of danger zone. Remove contaminated clothing, immediately. First aider: Pay attention to self-protection!

EYES CONTACT

In case of contact with the eyes, rinse for several minutes with plenty of water with eyes held open. Obtain medical advice urgently if any pain or redness develops or persists.

SKIN CONTACT

Instantly wash with water and soap and rinse thoroughly. Remove contaminated clothing immediately and wash skin carefully. In case of skin irritation, seek medical treatment.

INGESTION

Get medical advice immediately. Do NOT induce vomiting. Rinse out mouth and then drink plenty of water. Spit the liquid out again.

INHALATION

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist. In case of unconsciousness bring patient into recovery position for transport. If breathing is irregular or stopped, administer artificial respiration.

4.2. Most important symptoms and effects, both acute and delayed

Signs for eyes and skin irritation: burning sensation, redness, swelling. Degreases the skin and makes it dry and rough. Prolonged or repeated skin contact may cause dermatitis.

Signs, that material enters lungs: coughing, choking, wheezing, difficulty in breathing, pulmonary blood pressure, dyspnea and/or fever.

The onset of respiratory symptoms may be delayed for several hours after exposure.

Overexposure may cause drowsiness, tiredness, dizziness, headache, and possibly loss of consciousness.

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

Treat symptomatically. There is no specific antidote.

INFORMATIONEN TO PHYSICIAN:

High risk of chemical pneumonia if aspirated during and after ingestion.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Extinguishing media : alcohol-resistant foam, dry fire-extinguishing media or Water spray jet.

MUST NOT BE USED: ful water jet.

5.2. Special hazards arising from the substance or mixture

Vapours are heavier than air and spread on the ground. Vapours may form explosive mixtures with air.
Dangerous decomposition products: carbon monoxide, carbon dioxide.

5.3. Advice for firefighters

Fire in closed rooms must be fought from trained personnel wearing suitable breathing apparatus.
In case of fire: Wear self-contained breathing apparatus. Wear full chemical protective clothing.
Further information: remove container from fire area and use water spray to keep containers cool.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions: See Section 8 „Protective equipment“. Take away unprotected people. Ensure adequate ventilation. Do not breathe gas/fume/vapour/aerosols. Avoid contact with eyes and skin.
Keep away from sources of ignition - No smoking.

6.2. Environmental precautions

Prevent material from reaching sewage system, holes and cellars. Inform respective authorities in case product reaches water or sewage system.

6.3. Methods and material for containment and cleaning up

Absorb with liquid-binding material (like sand, dry powder, vermiculite, etc.). Dispose of contaminated material as waste according to item 13. Ensure adequate ventilation. Clean contaminated area carefully.

6.4. Reference to other sections

Regarding disposal see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Ensure that there is sufficient ventilation of the area, especially in closed rooms. Avoid direct contact with the product.

Product is combustible, but not slightly flammable. Keep away from sources of ignition – do not smoke. Protect against heat. Protect against electrostatic charges. Vapours are heavier than air and spread on the ground. Vapours may form explosive mixtures with air. Avoid generation of aerosols.

Keep away from food, drink and animal feedingstuffs.

7.2. Conditions for safe storage, including any incompatibilities

Keep container tightly closed and store in a cool, well ventilated place. Store in original container only.

Store away from oxidising agents. Protect from heat and direct sunlight.

Storage class (Germany): 10

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

| Component (CAS No) | Source | AGW | Remark |
|---|----------|------------------------|---|
| Hydrocarbon mixtures, used as solvent (solvent-based hydrocarbons), additive-free | TRGS 900 | 600mg/m ³ , | Excursion factor 2; Duration 15 min, mean; 4 times per shift; interval 1 hour Category II - Substances with systemic effects |

8.2. Exposure controls

Pay attention to measures in section 7.

Personal protection equipment:

Respiratory protection: Use breathing protection in case of insufficient ventilation (filter A, brown, organic gases and vapours with boiling point >65°C).

Hand protection: Gloves (recommended material: nitrile 0,45 mm). The glove manufacturer's information on permeability and breakthrough times must be taken into account. Protective gloves should be replaced at first signs of wear. Preventive skin protection through the use of skin protection products is recommended).

Eye protection: Eye glasses with side protection.

Skin protection: Use protective clothing if there is a risk of direct contact or splashes.

Hygiene measures

Do not eat, drink or smoke at work. Keep away from food, drinks and feedingstuffs.

Wash hands before breaks and after work.

Take off contaminated clothing. Avoid contact to eyes and skin.

Do not breathe mist/vapour/spray.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|--|--|
| Appearance : | liquid |
| Colour : | colourless |
| Odour ; | like hydro carbon |
| pH (20°C) : | n.a. |
| Melting Point : | n.d. |
| Boiling Point/range : | 175 – 220°C |
| Flash Point : | > 61°C |
| Auto-ignition temperature : | > 200°C |
| Explosion Limits : | lower: 0.5 Vol%; upper: 7.0 Vol% |
| Vapour Pressure : | 0.6 mbar (25°C) |
| Relative Density : | 0.770 – 0.815 g/cm ³ (20°C) |
| Solubility in water (20°C) : | not miscible or difficult to mix |
| Partition coefficient n-octanol/water : | no data available |
| Thermic decomposition : | no data available |
| kinematics viscosity (20°C) : | 1.0 – 2.5 mm ² /s |
| Explosion hazard : | The product is not explosive. The formation of explosive vapor-air mixtures is possible. |
| Oxidizing properties : | none known |

9.2. Other information

No further information.

SECTION 10: Stability and reactivity

10.1. Reactivity

No special information.

10.2. Chemical stability

Stable under normal conditions of use.

10.3. Possibility of hazardous reactions

Vapours may form explosive mixtures with air.

10.4. Conditions to avoid

Protect against direct sunlight. Keep away from heat and sources of ignition.

10.5. Incompatible materials

Avoid contact with strong oxidising agents.

10.6. Hazardous decomposition products

Thermal decomposition will generate carbon monoxide and carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

| Component | Route | Dose | Species | Remark |
|---|-----------|----------------------|-------------|----------|
| Hydro carbons C10-C13, n- alkanes, iso- alkanes, cyclic, < 2% aromatics | oral | LD50 > 5000 mg/kg | Rat | |
| | dermal | LD50 > 5000 mg/kg | Rabbit | |
| | inhalativ | LC50 > 5 mg/L | Rat, vapour | OECD 403 |

Irritation

Repeated or prolonged exposure may cause skin irritation and dermatitis due to degreasing properties.
Irritation to eyes possible, but not relevant for classification.

Sensitisation

Not known to be a sensitizer.

Carcinogenicity

No carcinogenic effects known on today's state of knowledge.

Mutagenicity

No mutagenic effects known on today's state of knowledge.

Reproduction toxicity

No reproduction toxic effects known on today's state of knowledge.

Specific Target Organ Toxicity, single exposure

No effects known on today's state of knowledge.

Specific target Organ Toxicity, repeated exposure

No effects known on today's state of knowledge.

Aspiration hazard

May be fatal if swallowed and enters airways.

SECTION 12: Ecological information

12.1. Toxicity

| Component | Aquatic toxicity | Dose | Species | Remark |
|---|------------------|---------------------------|--------------------------------------|--------|
| Hydro carbons C10-C13, n- alkanes, iso- alkanes, cyclic, < 2% aromatics | Fish | LL0 = 1000 mg/L (96 h) | Oncorhynchus mykiss | |
| | Daphnia | EL0 = 1000 mg/L (48 h) | Daphnia magna | |
| | Algae | EL0 = 1000 mg/L (72 h) | Pseudokirchne- riella subcapitata | |

| Component | Chronic toxicity | Dose | Species | Remark |
|---|------------------|-----------------------------|------------------------|--------|
| Hydro carbons C10-C13, n- alkanes, iso- alkanes, cyclic, < 2% aromatics | Fish | NOELR = 0,10 mg/L (28 d) | Oncorhynchus mykiss | |
| | Daphnia | NOELR = 0,18 mg/L (21 d) | Daphnia magna | |

12.2. Persistence and degradability

Persistence:

| Component | Result |
|---|--|
| Hydro carbons C10-C13, n-alkanes, iso-alkanes, cyclic, < 2% aromatics | Transformation by photolysis is not expected to be significant. Transformation by hydrolysis is not expected to be significant. |

Biodegradability:

| Component | Result |
|---|--|
| Hydro carbons C10-C13, n-alkanes, iso-alkanes, cyclic, < 2% aromatics | 80 % (Exposure: 28 d) Easily biodegradable. |

12.3. Bioaccumulative potential

| Component | Evaluation |
|---|----------------|
| Hydro carbons C10-C13, n-alkanes, iso-alkanes, cyclic, < 2% aromatics | Not determined |

12.4. Mobility in soil

| Component | Evaluation |
|---|---|
| Hydro carbons C10-C13, n-alkanes, iso-alkanes, cyclic, < 2% aromatics | Slightly volatile, it is quickly dispersed in the air. Presumably there is no distribution to the sediment layer and sewage solids. |

12.5. Results of PBT and vPvB assessment

This mixture does not contain components in concentrations > 0.1% or higher, which are classified as either persistent, bioaccumulating and toxic (PBT) or very persistent and very bioaccumulating (vPvB).

12.6. Other adverse effects

Must not reach drainage ditch or sewage water.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Dispose of in accordance with local regulations. Must not be disposed together with rubbish. Avoid entering sewage system.

Final allocation of waste key depends on product application. Has to be done in collaboration with waste disposal contractor.

SECTION 14: Transport information

| | Road transport ADR | Railway transport RID | Inland waterway ADN | Maritime transport IMDG | Air transport IATA |
|---|-----------------------|-----------------------------|---------------------------|-------------------------------|-----------------------|
| 14.1. UN No | Not restricted | | | | |
| 14.2. Proper shipping name | Not restricted | | | | |
| 14.3. Class | Not restricted | | | | |
| 14.4. Packing Group | Not restricted | | | | |

| | |
|---|------------------------|
| 14.5. Environmental hazards | No further information |
| 14.6. Special pre-caution for user | No further information |
| 14.7. Transport in bulk acc. to MARPOL 73/78 und IBC Code | No further information |

SECTION 15: Regulatory information

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

National regulations

Water hazard class (Germany) WGK: 1

15.2. Chemical safety assessment

For the following substance a chemical safety assessment was done.

Hydro carbons C10-C13, n-alkanes, iso-alkanes, cyclic, < 2% aromatics

SECTION 16: Other information

Last revision

General review. No changes compared to previous version.

This version replaces all previous versions.

Used abbreviations

n.a. not applicable

n.d. not determined

Literature references and sources of information

Regulation (EC) 1907/2006 (REACH) in valid version

Regulation (EC) 1272/2008 in valid version

National Exposure Limit Values in valid version

Transport regulation acc. to ADR, RID, ADN, IMDG, IATA in valid version

Information from supplier and internal data

List of relevant hazard statements from section 2 and 3 (GHS classification)

H304 May be fatal if swallowed and enters airways.

EUH066 Repeated exposure may cause skin dryness or cracking.

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. Each user is responsible to determine that the product is suitable for the users intended application and that such usage complies with applicable and administrative rules and guidelines. No statement made in this data sheet shall be construed as a permission, recommendation or authorisation given or implied to practise any patented invention without a valid license. VECOM MARINE shall not be held liable for any abnormal use of the material, from any failure to adhere to recommendations, or from any hazards inherent in the nature of the material.

Copyright 2019 by Vecom Marine B.V. , Maassluis, The Netherlands. License granted to make unlimited paper copies for internal use only.



WA-SOL Basic

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

1.1. Product identifier

Product Name : WA-SOL Basic (Code S 232)

1.2. Relevant identified uses of the substance or mixture and uses advised against

Product use: Component for Mineral Oil Testkits

1.3. Details of the supplier of the safety data sheet

Company: Vecom Marine B.V. Phone : + 31 (0)10 5930 210
Mozartlaan 3 Email : sales@vecom-marine.com
3144 NA Maassluis
The Netherlands

1.4. Emergency telephone number

Emergency : +49 178 433 74 34 Contact: CONSULTANK Lutz Harder

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

| Acc. to Regulation (EC) 1272/2008 | |
|-----------------------------------|-------------------|
| Hazard class / Hazard category | Hazard statements |
| Not classified | |

2.2. Label elements

Acc. to Regulation (EC) 1272/2008

No labelling required

2.3. Other hazards

The product itself is not to be classified according to valid regulations. The product is a solid like paste, with dispersed calcium hydride. The calcium hydride itself is therefore unable to react. Calcium hydride reacts strongly exothermically with water to form calcium hydroxide and hydrogen gas. Under these circumstances the final mixture is likely to be strongly irritant to skin, eyes and mucous membranes and may cause chemical burns if not removed immediately.

SECTION 3: Composition/information on ingredients

3.1. Substances

This product is a mixture.

3.2. Mixtures

Mixture from following substances and inert materials:

| Component | CAS No | EINECS No | Reg. No | Classification (1272/2008/EC) | Content |
|-------------------|-----------|-----------|------------------|-------------------------------|--------------------|
| Calcium dihydride | 7789-78-8 | 232-189-2 | 01-2120774384-47 | Water react. 1; H260 | >0,5 % & < 1,0% |

SECTION 4: First aid measures

4.1. Description of first aid measures

GENEREL INFORMATION

Remove contaminated clothing, including underwear and shoes, immediately.

EYES CONTACT

Immediately rinse eye thoroughly with copious quantities of water ensuring eyelids are held open.

Obtain medical advice urgently if any pain or redness develops or persists.

SKIN CONTACT

The skin should be washed thoroughly with water and soap as soon as reasonable practical. Change all contaminated clothing and wash underlying skin.

INGESTION

If contamination of the mouth occurs, wash out thoroughly with water. Except as a deliberate act, the ingestion of large amounts of product is highly unlikely. If it should occur, do NOT induce vomiting; obtain medical advice.

INHALATION

If exposure to vapours, mists or fumes causes irritation of nose/throat or coughing, remove immediately to fresh air. If any symptoms persist, obtain medical advice.

4.2. Most important symptoms and effects, both acute and delayed

Presents a risk of serious damage if accidental eye contact occurs.

Likely to cause severe chemical burns to skin.

Likely to cause severe chemical burns to the mouth, throat and digestive tract. Large quantities may cause severe gastrointestinal disturbance.

May cause irritation to eyes, nose and throat due to exposure to vapour, mists and fumes. Signs for eyes and skin irritation: burning sensation, redness, swelling.

The onset of respiratory symptoms may be delayed for several hours after exposure.

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

Treat symptomatically. There is no specific antidote.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Extinguishing media: alcohol-resistant foam, dry fire-extinguishing media or Water spray jet.

MUST NOT BE USED: water.

5.2. Special hazards arising from the substance or mixture

Dangerous decomposition products: Toxic fumes may be evolved on burning or exposure to heat (see section 10).

5.3. Advice for firefighters

Special Fire-Fighting Procedures: Fires in confined spaces should be dealt with by trained personnel wearing approved breathing apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions: See Section 8 „Protective equipment“.

Ensure adequate ventilation.

Avoid contact with water!

6.2. Environmental precautions

Turn leaking containers leak-side up to prevent the escape of liquid. Do not allow to enter drains/surface waters/groundwater.

6.3. Methods and material for containment and cleaning up

Clean up spilled material immediately, using inert material like sand, dry powder, vermiculite, etc.

Spilled material may make surfaces slippery. It is advised that stocks of absorbent material should be held in quantities sufficient to deal with any spillage which can be reasonably anticipated. Collect spills in suitable container.

6.4. Reference to other sections

Regarding disposal see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid skin and eye contact. Avoid inhalation. Do not eat drink or smoke while using. Ensure good ventilation. Wear protective clothing when using (see Section 8) and change clothing when contaminated.

7.2. Conditions for safe storage, including any incompatibilities

Store under tightly closed away from heat and sources of ignition. Keep container tightly closed. Hold stocks of suitable absorbent material to deal with any spillage which may be reasonably anticipated.

Fire Prevention: Highly flammable. Avoid contact with water. Product contaminated rags paper or material used to absorb spillages represents a fire hazard and should not be allowed to accumulate. Dispose of safely immediately after use.

Storage class (Germany): 10

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure Limits: Ensure good ventilation. Avoid, as far as reasonably practicable, inhalation of vapour, mists or fumes generated during use. If vapour, mists or fumes are generated, their concentration in the workplace air should be controlled to the lowest reasonably practicable level.

Comply with current local occupational exposure limit. Where not established, it is recommended that mists are kept below 5mg/m³ (8hr TWA).

8.2. Exposure controls

Pay attention to measures in section 7.

Personal protection equipment:

Respiratory protection: Respiratory protection is unnecessary provided the concentration of vapour mists and fumes is adequately controlled. The employment of respiratory equipment must be strictly in accordance with the manufacturer's instructions and any statutory requirements governing its selection and use.

Hand protection: protective gloves (suitable material: Polychloroprene, Nitril rubber, Butyl rubber, Fluor rubber, Polyvinylchloride).

Eye protection: Eye glasses with side protection.

Skin protection: Use protective clothing if there is a risk of direct contact or splashes.

Hygiene measures

Do not eat, drink or smoke at work. Keep away from food, drink and feeding stuff.

Wash hands before breaks and after work.

Take off contaminated clothing. Avoid contact with eyes and skin.

Do not breathe mist/vapour/spray.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|---------------------------|----------------------------------|
| Appearance | : paste |
| Colour | : off white |
| Odour | : mild, characteristic |
| pH (20°C) | : n.a. |
| Melting Point | : n.d. |
| Boiling Point/range | : n.d. |
| Flash Point | : n.d. |
| Auto-ignition temperature | : not established |
| Explosion Limits | : lower: -; upper: - |
| Vapour Pressure | : not established (20°C) |
| Relative Density | : ~0,87 g/cm ³ (15°C) |

Kinematical viscosity : n.d.
Solubility in water : insoluble

9.2. Other information

No further information.

SECTION 10: Stability and reactivity

10.1. Reactivity

Contact with water liberates extremely flammable gas.

10.2. Chemical stability

Products of this type are stable and unlikely to react in a hazardous manner under normal conditions of use. Hazardous polymerisation will not occur.

10.3. Possibility of hazardous reactions

Contact with water liberates extremely flammable gas.

10.4. Conditions to avoid

Stable under normal conditions of storage. Keep away from water and extreme humidity.

10.5. Incompatible materials

Avoid contact with water, oxidising agents, acids, bromates, chlorates, perchlorates, halogens, silver halides and lower alcohols.

10.6. Hazardous decomposition products

Calcium hydride reacts with water to form hydrogen and calcium hydroxide. Thermal decomposition can produce a variety of compounds, the precise nature of which will depend on the decomposition conditions. Incomplete combustion/thermal decomposition will generate carbon dioxide and hazardous gases, which will include carbon monoxide. During the test in which this reagent is used, highly flammable hydrogen gas may be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

| | |
|---------------------|--------------------|
| LD 50 (oral) | No data available. |
| LD 50 (dermal) | No data available. |
| LC 50 (inhal.) (4h) | No data available. |

Irritation

Calcium hydride reacts strongly exothermically with water to form calcium hydroxide and hydrogen gas. Under these circumstances the reaction mixture is likely to be strongly irritant to the skin, eyes and mucous membranes and may cause chemical burns if not removed immediately.

Sensitisation

Not known to be a sensitizer.

Repeated dose toxicity

Frequent persistent or long-term exposure may result in irritation.

Carcinogenicity

No carcinogenic effects known on today's state of knowledge.

Mutagenicity

No mutagenic effects known on today's state of knowledge.

Reproduction toxicity

No reproduction toxic effects known on today's state of knowledge.

Specific Target Organ Toxicity, single exposure

No effects known on today's state of knowledge.

Specific Target Organ Toxicity, repeated exposure

No effects known on today's state of knowledge.

Aspiration hazard

No information available.

SECTION 12: Ecological information

12.1. Toxicity

Fish: No data available.

Crustaceans: No data available.

Algae: No data available.

12.2. Persistence and degradability

This product is not completely biodegradable.

12.3. Bioaccumulative potential

This material is not expected to bio accumulate.

12.4. Mobility in soil

Spillage may penetrate the soil causing ground water contamination.

12.5. Results of PBT and vPvB assessment

No data available.

12.6. Other adverse effects

Ecotoxic effects: On exposure to air, calcium hydride can give rise to products hazardous in water, having a strongly alkaline reaction. The resultant ph-change may be harmful to aquatic and soil organisms. However the quantities of Solution B per test kit are small and not thought to present an environmental hazard in normal use.

Water hazard class (Germany): WGK 1 (self classification). Do not allow to enter drains/surface waters/groundwater.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Where possible arrange for product to be recycled.

Dispose of via an authorized person/ licensed waste disposal contractor in accordance with local regulations. Incineration may be carried out under controlled conditions provided that local regulations for emissions are met.

At sea, used or unwanted product should be stored for eventual disposal by a licensed waste disposal contractor.

Final allocation of waste key depends on product application. Has to be done in collaboration with waste disposal contractor.

Supplier proposal waste key number: 16 05 06*

SECTION 14: Transport information

| | Road transport ADR | Railway transport RID | Inland waterway ADN | Maritime transport IMDG | Air transport IATA |
|--|------------------------|--------------------------|------------------------|----------------------------|-----------------------|
| 14.1. UN No | Not restricted | | | | |
| 14.2. Proper shipping name | Not restricted | | | | |
| 14.3. Class | Not restricted | | | | |
| 14.4. Packing Group | Not restricted | | | | |
| 14.5. Environmental hazards | No further information | | | | |
| 14.6. Special pre-caution for user | No further information | | | | |

| | Road transport ADR | Railway transport RID | Inland waterway ADN | Maritime transport IMDG | Air transport IATA |
|---|------------------------|--------------------------|------------------------|----------------------------|-----------------------|
| 14.7. Transport in bulk acc. to MARPOL 73/78 und IBC Code | No further information | | | | |

SECTION 15: Regulatory information

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

National regulations

Water hazard class (Germany) WGK: 1

15.2. Chemical safety assessment

For the product no chemical safety assessment is available.

SECTION 16: Other information

Last revision

General review. No changes compared to previous version.

This version replaces all previous versions.

Used abbreviations

n.a. not applicable

n.d. not determined

Literature references and sources of information

Regulation (EC) 1907/2006 (REACH) in valid version

Regulation (EC) 1272/2008 in valid version

National Exposure Limit Values in valid version

Transport regulation acc. to ADR, RID, ADN, IMDG, IATA in valid version

Information from supplier and internal data

List of relevant hazard statements from section 2 and 3 (GHS classification)

H260 In contact with water releases flammable gases which may ignite spontaneously.

ATTENTION!

Directly at the work place the component WA-SOL Basic will be mixed with component WA-SOL Activator to form final product (see technical information). Within the final product the calcium hydride is in reactive state. Therefore the final product has to be classified and labelled according to Regulation (EC) 1272/2008:

Acc. to Regulation (EC) 1272/2008



Pictograms

GHS02

Flame

Signal word:

Danger

H statements

H260 In contact with water releases flammable gases which may ignite spontaneously.

P statements

P262 Do not get on eyes, on skin, or on clothing.

P370 + P378 In case of fire: Use foam/dry/CO2 and NO water for extinction.

P402 + P404 Store in a dry place. Store in a closed container.

The final product shall not be transported. In case of a transport this has to be done according to transport regulations for dangerous goods:

UN-No : 3148 - Water reactive liquids, nos. (contains calcium dihydride, Class 4.3, Packing Group I)

AIR – IATA/ICAO Class 4.3, Water reactive liquids, nos. (Contains calcium dihydride), Packing Group I, Dangerous when wet. Forbidden on passenger aircraft. Max net quantity/package on cargo aircraft 1l.

LAND - ADR Class 4.3 – Packing Group I, WATER REACTIVE LIQUID, N.O.S. (contains calcium dihydride), Hazard Identification: X323; Tunnel category (B/E).

SEA – IMDG Class 4.3, Water reactive liquids, nos. (contains Calcium dihydride), UN No. 3148, Class 4.3, Packing Group I; EmS: F-G, S-N.

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. Each user is responsible to determine that the product is suitable for the users intended application and that such usage complies with applicable and administrative rules and guidelines. No statement made in this data sheet shall be construed as a permission, recommendation or authorisation given or implied to practise any patented invention without a valid license. VECOM MARINE shall not be held liable for any abnormal use of the material, from any failure to adhere to recommendations, or from any hazards inherent in the nature of the material.

Copyright 2019 by Vecom Marine B.V. , Maassluis, The Netherlands. License granted to make unlimited paper copies for internal use only.