



## Solution A

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

#### 1.1. Product identifier

Product Name : Solution A (Code S 102)

#### 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. 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 <sup>3</sup> ,	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 <sup>3</sup> (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 <sup>2</sup> /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)	Pseudokirchneriella 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
<b>14.1.</b> UN No	Not restricted				
<b>14.2.</b> Proper shipping name	Not restricted				
<b>14.3.</b> Class	Not restricted				
<b>14.4.</b> Packing Group	Not restricted				
<b>14.5.</b> Environmental hazards	No further information				
<b>14.6.</b> Special precaution for user	No further information				
<b>14.7.</b> 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.

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## 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.

Crustaceans: 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
<b>14.1.</b> UN No	Not restricted				
<b>14.2.</b> Proper shipping name	Not restricted				
<b>14.3.</b> Class	Not restricted				
<b>14.4.</b> Packing Group	Not restricted				
<b>14.5.</b> Environmental hazards	No further information				
<b>14.6.</b> Special pre-caution for user	No further information				
<b>14.7.</b> 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.

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