according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and GHS

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

· 1.1 Product identifier

· Trade name: Marine Clean

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

No further relevant information available.

· Application of the substance / the mixture: Alkaline cleaner/ detergent

· 1.3 Details of the supplier of the Safety Data Sheet

· Manufacturer/Supplier:

Absolute Coatings Inc. 38 Portman Road New Rochelle, NY 10801 Phone: 1-800-221-8010

· 1.4 Emergency telephone number:

ChemTel Inc.

(800)255-3924, +1 (813)248-0585

2 Hazards identification

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



Corrosion

Skin Corr. 1A; H314: Causes severe skin burns and eye damage.

· Classification according to Directive 67/548/EEC or Directive 1999/45/EC



C; Corrosive

R35: Causes severe burns.

· Information concerning particular hazards for human and environment:

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

· Classification system:

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

The classification is in accordance with the latest editions of international substances lists, and is supplemented by information from technical literature and by information provided by the company.

- · 2.2 Label elements
- · Labelling according to Regulation (EC) No 1272/2008

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

Hazard pictograms



· Signal word: Danger

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· Hazard-determining components of labelling:

potassium hydroxide

· Hazard statements

H314 Causes severe skin burns and eye damage.

· Precautionary statements

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

P102: Keep out of reach of children.

P103: Read label before use.

P280: Wear protective gloves / eye protection.

P264: Wash thoroughly after handling.

P260: Do not breathe mist/vapours/spray.

P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

- · Hazard description:
- · WHMIS-symbols:

E - Corrosive material



· NFPA ratings (scale 0 - 4)



· HMIS-ratings (scale 0 - 4)



· HMIS Long Term Health Hazard Substances

None of the ingredients is listed.

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

3 Composition/information on ingredients

- · 3.2 Mixtures
- Description: Mixture of substances listed below with nonhazardous additions.

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· Dangerous components:				
EINECS: 203-905-0	2-butoxyethanol Xn R20/21/22; Xi R36/38 Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319	<10%		
CAS: 1310-58-3 EINECS: 215-181-3 Index number: 019-002-00-8		<10%		
· Additional information: For the wording of the listed risk phrases refer to section 16.				

4 First aid measures

- · 4.1 Description of first aid measures
- General information: Immediately remove any clothing soiled by the product.
- · After inhalation: Supply fresh air; consult doctor in case of complaints.
- · After skin contact:

Immediately rinse with water.

If skin irritation continues, consult a doctor.

Seek immediate medical help for blistering or open wounds.

After eye contact:

Remove contact lenses if worn, if possible.

Rinse opened eye for several minutes under running water. Then consult a doctor.

· After swallowing:

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; call for medical help immediately.

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

Nausea

Cramp

Thirst

- Hazards Danger of gastric perforation.
- · 4.3 Indication of any immediate medical attention and special treatment needed

Medical supervision for at least 48 hours.

If necessary oxygen respiration treatment.

5 Firefighting measures

- · 5.1 Extinguishing media
- · Suitable extinguishing agents:

CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

- · For safety reasons unsuitable extinguishing agents: None.
- 5.2 Special hazards arising from the substance or mixture: No further relevant information available.
- · 5.3 Advice for firefighters
- · Protective equipment:

Wear self-contained respiratory protective device.

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Wear fully protective suit.

Additional information

Cool endangered receptacles with water spray.

No further relevant information available.

6 Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

Particular danger of slipping on leaked/spilled product.

Ensure adequate ventilation

· 6.2 Environmental precautions: Do not allow to enter sewers/ surface or ground water.

6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders,

sawdust). Send for recovery or disposal in suitable receptacles.

Clean the affected area carefully; suitable cleaners are:

Warm water

Dispose contaminated material as waste according to item 13.

· 6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7 Handling and storage

· 7.1 Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

- · Information about fire and explosion protection: No special measures required.
- · 7.2 Conditions for safe storage, including any incompatibilities
- Storage:
- · Requirements to be met by storerooms and receptacles:

Unsuitable material for receptacle: aluminium.

Unsuitable material for receptacle: steel.

Unsuitable material for receptacle: glass or ceramic.

Avoid storage near extreme heat, ignition sources or open flame.

· Information about storage in one common storage facility:

Store away from foodstuffs.

Do not store together with acids.

· Further information about storage conditions:

Store in cool, dry conditions in well sealed

receptacles. Keep container tightly sealed.

• 7.3 Specific end use(s): No further relevant information available.

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8 Exposure controls/personal protection

- · Additional information about design of technical facilities: No further data; see item 7.

· 8.1 Control parameters					
· Ingredients with limit values that require monitoring at the workplace:					
111-76-2 2-butoxyethanol					
IOELV (EU)	Short-term value: 246 mg/m³, 50 ppm Long-term value: 98 mg/m³, 20 ppm Skin				
PEL (USA)	240 mg/m³, 50 ppm Skin				
REL (USA)	24 mg/m³, 5 ppm Skin				
TLV (USA)	97 mg/m³, 20 ppm BEI				
EL (Canada)	20 ppm				
EV (Canada)	20 ppm Skin				
1310-58-3 pc	tassium hydroxide				
REL (USA)	C2 mg/m ³				
TLV (USA)	Short-term value: C 2 mg/m³				
EL (Canada)	Short-term value: C 2 mg/m³				

- · **DNELs:** No further relevant information available.
- · PNECs: No further relevant information available.
- · Additional information: The lists valid during the making were used as basis.
- · 8.2 Exposure controls
- · Personal protective equipment:
- General protective and hygienic measures:

The usual precautionary measures are to be adhered to when handling

chemicals. Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

· Respiratory protection:

Use suitable respiratory protective device when aerosol or mist is formed.

Use suitable respiratory protective device in case of insufficient ventilation.

· Protection of hands:



Protective gloves

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

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Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

· Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· Penetration time of glove material

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

· For the permanent contact gloves made of the following materials are suitable:

Butyl rubber, BR Neoprene gloves

· Eye protection:

Contact lenses should not be worn.



Safety glasses

- · Body protection: Alkaline resistant protective clothing
- · Limitation and supervision of exposure into the environment

No further relevant information available.

· Risk management measures

See Section 7 for additional information. No further relevant information available.

9 Physical and chemical properties

- · 9.1 Information on basic physical and chemical properties
- · General Information

· Appearance:

Form: Solution Colour: Transparent

· Odour: Light

· Odour threshold: Not determined.

• **pH-value at 20 °C:** 9,5 - 13,1

· Change in condition

Melting point/Melting range: $< 32 \,^{\circ}\text{F} / < 0 \,^{\circ}\text{C}$ Boiling point/Boiling range: $> 212 \,^{\circ}\text{F} / > 100 \,^{\circ}\text{C}$

• Flash point: Not applicable.

• Flammability (solid, gaseous): Not applicable.

· Auto/Self-ignition temperature: Not determined.

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• Decomposition temperature: Not determined.

Self-igniting: Product is not self-igniting.

• **Danger of explosion:** Product does not present an explosion hazard.

· Explosion limits:

Lower: Not determined. **Upper:** Not determined.

· Vapour pressure at 20 °C: 23 hPa

Density at 20 °C: 1,03 g/cm³
 Relative density Not determined.
 Vapour density Not determined.
 Evaporation rate Not determined.

· Solubility in / Miscibility with

water: Fully miscible.Partition coefficient (n-octanol/water): Not determined.

· Viscosity:

Dynamic: Not determined. **Kinematic:** Not determined.

· Solvent content:

Water: 80,0 % **VOC (US EPA Method 24)** 92 % Wt

VOC (California) 5 % Wt (45.1 g /L)

Solids content: 5.0 %

• 9.2 Other information No further relevant information available.

10 Stability and reactivity

- · 10.1 Reactivity
- · 10.2 Chemical stability
- · Thermal decomposition / conditions to be avoided:

No decomposition if used and stored according to specifications.

10.3 Possibility of hazardous reactions

Strong exothermic reaction with acids.

Corrosive action on metals.

Reacts with strong oxidizing agents.

Attacks materials containing glass and silicate.

- 10.4 Conditions to avoid: No further relevant information available.
- 10.5 Incompatible materials: No further relevant information available.
- 10.6 Hazardous decomposition products: Possible in traces.

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11 Toxicological information

- · 11.1 Information on toxicological effects
- · Acute toxicity:
- · LD/LC50 values relevant for classification:

1310-58-3 potassium hydroxide

Oral LD50 273 mg/kg (rat)

- · Primary irritant effect:
- On the skin: Strong caustic effect on skin and mucous membranes.
- · In the eye: Strong caustic effect.
- · Sensitization: No sensitizing effects known.
- Additional toxicological information:

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version: Corrosive

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

12 Ecological information

- · 12.1 Toxicity
- · Aquatic toxicity: The product contains materials that are harmful to the environment.
- 12.2 Persistence and degradability: The product is partially biodegradable. Significant residuals remain.
- 12.3 Bioaccumulative potential: Does not accumulate in organisms.
- 12.4 Mobility in soil: No further relevant information available.
- · Ecotoxical effects:
- · Remark: After neutralization a reduction of the harming action may be recognized
- · Additional ecological information:
- · General notes:

This statement was deduced from the properties of the single components.

Due to available data on eliminability/decomposition and bioaccumulation potential prolonged term damage of the environment can not be excluded.

Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

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

Danger to drinking water if even small quantities leak into the ground.

Rinse off of bigger amounts into drains or the aquatic environment may lead to increased pH-values. A high pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably reduced, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.

- · 12.5 Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- · **vPvB**: Not applicable.
- 12.6 Other adverse effects: No further relevant information available.

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GHS

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13 Disposal considerations

- · 13.1 Waste treatment methods
- · Recommendation

Small amounts may be diluted with plenty of water and washed away. Dispose of bigger amounts in accordance with Local Authority requirements.

Can be burned with household garbage after consulting with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations.

- · Uncleaned packaging:
- · Recommendation: Disposal must be made according to official regulations.
- · Recommended cleansing agents: Water, if necessary together with cleansing agents.

17 Hansport Information	14 T	ranspo	ort inf	ormation
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· 14.1 UN-Number

· DOT, ADR, IMDG, IATA UN1814

· 14.2 UN proper shipping name

· DOT, IMDG, IATA POTASSIUM HYDROXIDE SOLUTION

· **ADR** 1814 POTASSIUM HYDROXIDE SOLUTION

· 14.3 Transport hazard class(es)

· DOT



Class
 8 Corrosive substances.

· Label

· ADR



· Class 8 (C5) Corrosive substances.

· Label

· IMDG, IATA



· Class 8 Corrosive substances.

· Label

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· 14.4 Packing group

· DOT, ADR, IMDG, IATA

Ш

· 14.5 Environmental hazards:

· Marine pollutant:

No

· 14.6 Special precautions for user

Warning: Corrosive substances.

Danger code (Kemler):EMS Number:

80

· Segregation groups

F-A,S-B Alkalis

· 14.7 Transport in bulk according to Annex II of

MARPOL73/78 and the IBC Code

Not applicable.

· Transport/Additional information:

· ADR

Limited quantities (LQ)

5L

Transport categoryTunnel restriction code

3 E

· UN "Model Regulation":

UN1814, POTASSIUM HYDROXIDE SOLUTION, 8, III

15 Regulatory information

- · 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- · United States (USA)
- · SARA
- · Section 355 (extremely hazardous substances):

None of the ingredients is listed.

· Section 313 (Specific toxic chemical listings):

None of the ingredients is listed.

TSCA (Toxic Substances Control Act):

All ingredients are listed.

- · Proposition 65 (California):
- · Chemicals known to cause cancer:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients are listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

· Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

· Carcinogenic Categories

· EPA (Environmental Protection Agency)

111-76-2 2-butoxyethanol

CBD

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· IARC (Int	ernational Agency for Research on Cancer)			
111-76-2	2-butoxyethanol	3		
TLV (Threshold Limit Value established by ACGIH)				
111-76-2	2-butoxyethanol	A3		
 NIOSH-Ca (National Institute for Occupational Safety and Health) None of the ingredients is listed. 				

- · Canada
- Canadian Domestic Substances List (DSL)
 All ingredients are listed.
- Canadian Ingredient Disclosure list (limit 0.1%)
 None of the ingredients is listed.
- · Canadian Ingredient Disclosure list (limit 1%)

111-76-2 2-butoxyethanol

1310-58-3 potassium hydroxide

- · National regulations:
- · Other regulations, limitations and prohibitive regulations HSNO Numbers: 8.2A, 6.1E
- · Substances of very high concern (SVHC) according to REACH, Article 57

None of the ingredients is listed.

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

16 Other information

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

· Relevant phrases

H302: Harmful if swallowed.

H312: Harmful in contact with skin.

H314: Causes severe skin burns and eye damage.

H315: Causes skin irritation.

H319: Causes serious eye irritation.

H332: Harmful if inhaled.

R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.

R22: Harmful if swallowed.

R35: Causes severe burns. R36/38:

Irritating to eyes and skin.

· Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

ACGIH: American Conference of Governmental Industrial Hygienists

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EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA) HMIS: Hazardous Materials Identification System (USA)

WHMIS: Workplace Hazardous Materials Information System (Canada)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Acute Tox. 4: Acute toxicity, Hazard Category 4

Skin Corr. 1A: Skin corrosion/irritation, Hazard Category 1A
Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
Eve Irrit. 2: Serious and demagn/and irritation, Hazard Category 1

Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2