

MATERIAL SAFETY DATA SHEET

PRODUCT

ACCEPTA 2091

EMERGENCY TELEPHONE NUMBER(S)

See section 16, for Emergency Telephone Numbers.

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME : **ACCEPTA 2091**

APPLICATION : REVERSE OSMOSIS ANTISCALANT

COMPANY IDENTIFICATION : ACCEPTA LTD
Statham House, Talbot Road.
Manchester M32 0FP. United Kingdom.

EMERGENCY TELEPHONE NUMBER(S) : See section 16, for Emergency Telephone Numbers.

Date issued : 14/07/2008

COMPANY CONTACT TELEPHONE NUMBERS. +44 (0) 161 877 2334

2. HAZARDS IDENTIFICATION

HAZARD CLASSIFICATION :

This product is not classified as dangerous in accordance with Directives 67/548/EEC or 1999/45/EC.

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HUMAN HEALTH HAZARDS - ACUTE :

INHALATION :

Not a likely route of exposure. No adverse effects expected.

SKIN CONTACT :

No adverse effects expected.

EYE CONTACT :

No adverse effects expected.

INGESTION :

Not a likely route of exposure. No adverse effects expected.

3. COMPOSITION/INFORMATION ON INGREDIENTS

This product is not classified as dangerous in accordance with Directives 67/548/EEC or 1999/45/EC.

4. FIRST AID MEASURES

INHALATION :

Remove to fresh air, treat symptomatically. If symptoms develop, seek medical advice.

SKIN CONTACT :

Flush affected area with water. If symptoms develop, seek medical advice.

EYE CONTACT :

Flush affected area with water. Get medical attention.

INGESTION :

Get medical attention. Do not induce vomiting without medical advice. If conscious, washout mouth and give water to drink. If reflexive vomiting occurs, rinse mouth and repeat administration of water.

NOTE TO PHYSICIAN :

Based on the individual reactions of the patient, the physician's judgement should be used to control symptoms and clinical condition.

5. FIRE FIGHTING MEASURES

FLASH POINT : > 200 F/ > 93.3 C

EXTINGUISHING MEDIA :

This product would not be expected to burn unless all the water is boiled away. The remaining organics may be ignitable. Use extinguishing media appropriate for surrounding fire.

FIRE AND EXPLOSION HAZARD :

May evolve oxides of carbon (COx) under fire conditions. May evolve oxides of phosphorus (POx) under fire conditions.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE FIGHTING :

In case of fire, wear a full face positive-pressure self contained breathing apparatus and protective suit.

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6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS :

Restrict access to area as appropriate until clean-up operations are complete. Use personal protective equipment recommended in Section 8 (Exposure Controls/Personal Protection). Stop or reduce any leaks if it is safe to do so. Ventilate spill area if possible.

METHODS FOR CLEANING UP :

SMALL SPILLS: Soak up spill with absorbent material. Place residues in a suitable, covered, properly labeled container. Wash affected area. **LARGE SPILLS:** Contain liquid using absorbent material, by digging trenches or by diking. Reclaim into recovery or salvage drums or tank truck for proper disposal. Clean contaminated surfaces with water or aqueous cleaning agents. Contact an approved waste hauler for disposal of contaminated recovered material. Dispose of material in compliance with regulations indicated in Section 13 (Disposal Considerations).

ENVIRONMENTAL PRECAUTIONS :

Do not contaminate surface water.

7. HANDLING AND STORAGE

HANDLING :

Do not get in eyes, on skin, on clothing. Do not take internally. Use with adequate ventilation. Do not breathe vapors/gases/dust. Keep the containers closed when not in use. Have emergency equipment (for fires, spills, leaks, etc.) readily available. Ensure all containers are labeled. Do not get in eyes, on skin, on clothing. Do not take internally. Use with adequate ventilation. Keep the containers closed when not in use. Do not mix with acids.

STORAGE CONDITIONS :

Store in suitable labeled containers. Store the containers tightly closed.

SUITABLE CONSTRUCTION MATERIAL :

Brass, Stainless Steel 304, Surface-modified HDPE (high density polyethylene), Compatibility with Plastic Materials can vary; we therefore recommend that compatibility is tested prior to use., PVC, Buna-N, HDPE (high density polyethylene), Polyurethane, Hypalon, Neoprene, Polypropylene, Polyethylene

UNSUITABLE CONSTRUCTION MATERIAL :

Viton, EPDM

SPECIFIC USE(S) :

REVERSE OSMOSIS ANTISCALANT

For specific dosages and customized applications please contact your representative.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

OCCUPATIONAL EXPOSURE LIMITS

This product does not contain any substance that has an established exposure limit.

ENGINEERING MEASURES :

General ventilation is recommended.

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PERSONAL PROTECTION

GENERAL ADVICE :

The use and choice of personal protection equipment is related to the hazard of the product, the workplace and the way the product is handled. In general, we recommend as a minimum precaution that safety glasses with side-shields and workclothes protecting arms, legs and body be used. In addition any person visiting an area where this product is handled should at least wear safety glasses with side-shields. The applicable European standard can be found in EN 166.

RESPIRATORY PROTECTION :

At ambient temperature none needed for vapour. If product is heated or if aerosol generation is likely, the use of a half face filter mask is recommended. A suitable filter material depends on the amount and type of chemicals being handled. Consider the use of filter type: A-P The applicable European standard can be found in EN 140, EN 137, EN 143 and EN 14387. In event of emergency or planned entry into unknown concentrations a positive pressure, full-facepiece SCBA should be used. If respiratory protection is required, institute a complete respiratory protection program including selection, fit testing, training, maintenance and inspection.

HAND PROTECTION :

When handling this product, the use of chemical gloves is recommended. The choice of work glove depends on work conditions and what chemicals are handled, but we have positive experience under light handling conditions using gloves made from PVC. Gloves should be replaced immediately if signs of degradation are observed. Breakthrough time not determined as preparation, consult PPE manufacturers. The applicable European standard can be found in EN 374.

SKIN PROTECTION :

See general advice. The applicable European standard can be found in EN ISO 20345.

EYE PROTECTION :

When handling this product, the use of safety glasses with side shields is recommended. The applicable European standard can be found in EN 166.

HYGIENE RECOMMENDATIONS :

Use good work and personal hygiene practices to avoid exposure. Consider the provision in the work area of a safety shower and eyewash. Always wash thoroughly after handling chemicals. When handling this product never eat, drink or smoke.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE	Liquid
APPEARANCE	Amber
FLASH POINT :	> 200 F/ > 93.3 C
SPECIFIC GRAVITY	1.22 (15.6 °C)
SOLUBILITY IN WATER	Complete
pH (100 %)	9.2 - 10.2

Note: These physical properties are typical values for this product and are subject to change.

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10. STABILITY AND REACTIVITY

STABILITY :

Stable under normal conditions.

HAZARDOUS POLYMERIZATION :

Hazardous polymerization will not occur.

CONDITIONS TO AVOID :

Avoid extremes of temperature.

MATERIALS TO AVOID :

Contact with strong oxidizers (e.g. chlorine, peroxides, chromates, nitric acid, perchlorate, concentrated oxygen, permanganate) may generate heat, fires, explosions and/or toxic vapors.

HAZARDOUS DECOMPOSITION PRODUCTS :

Under fire conditions: Oxides of carbon, Oxides of phosphorus

11. TOXICOLOGICAL INFORMATION

No toxicity studies have been conducted on this product.

SENSITIZATION :

This product is not expected to be a sensitizer.

CARCINOGENICITY :

None of the substances in this product are listed as carcinogens by the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP) or the American Conference of Governmental Industrial Hygienists (ACGIH).

For additional information on the hazard of the preparation, please consult section 2 and 12.

12. ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL EFFECTS :

No toxicity studies have been conducted on this product.

ACUTE FISH RESULTS :

Species	Exposure	LC50	NOEC	Method	Test Descriptor
Rainbow Trout	96 hrs	> 1,000 mg/l			Product (estimated)

ACUTE INVERTEBRATE RESULTS :

Species	Exposure	LC50	EC50	Method	Test Descriptor
Daphnia magna	48 hrs		> 1,000 mg/l		Product (estimated)

AQUATIC PLANT RESULTS :

Species	Exposure	EC50/LC50	Method	Test Descriptor
Algae	72 hrs	362 mg/l		Product (estimated)

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MOBILITY :

The environmental fate was estimated using a level III fugacity model embedded in the EPI (estimation program interface) Suite TM , provided by the US EPA. The model assumes a steady state condition between the total input and output. The level III model does not require equilibrium between the defined media. The information provided is intended to give the user a general estimate of the environmental fate of this product under the defined conditions of the models. If released into the environment this material is expected to distribute to the air, water and soil/sediment in the approximate respective percentages;

Air	Water	Soil/Sediment
<5%	30 - 50%	50 - 70%

The portion in water is expected to be soluble or dispersible.

PERSISTENCY AND DEGRADATION :

The organic portion of this preparation is expected to be inherently biodegradable.

BIOACCUMULATION POTENTIAL

This preparation or material is not expected to bioaccumulate.

13. DISPOSAL CONSIDERATIONS

If this preparation becomes a waste, the final user must define and assign the appropriate European Waste Catalogue code. Use only authorized contractors. Ensure compliance with EC, national and local regulations.

Dispose of wastes in an approved incinerator or waste treatment/disposal site, in accordance with all applicable regulations. Do not dispose of wastes in local sewer or with normal garbage. This product will generate an ash if burned. It can be burned directly in appropriate equipment. Any chemical waste is a potential environmental pollutant and is NOT suitable for disposal via ground, municipal sewers, drains, natural streams or rivers.

Empty drums should be taken for recycling, recovery, or disposal through a suitably qualified or licensed contractor.

EUROPE WASTE CODE :

16 03 04 - OFF SPECIFICATION BATCHES AND UNUSED PRODUCTS - Inorganic wastes other than those mentioned in 16 03 03. If this product is used in any further processes, the final user must redefine and assign the most appropriate European Waste Catalogue Code.

14. TRANSPORT INFORMATION

The information in this section is for reference only and should not take the place of a shipping paper (bill of lading) specific to an order. Please note that the proper Shipping Name / Hazard Class may vary by packaging, properties, and mode of transportation. Typical Proper Shipping Names for this product are as follows.

LAND TRANSPORT

Proper Shipping Name :

PRODUCT IS NOT REGULATED DURING TRANSPORTATION

AIR TRANSPORT (ICAO/IATA)

Proper Shipping Name :

PRODUCT IS NOT REGULATED DURING TRANSPORTATION

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MARINE TRANSPORT (IMDG/IMO)

Proper Shipping Name :

PRODUCT IS NOT REGULATED DURING
TRANSPORTATION

15. REGULATORY INFORMATION

CLASSIFICATION AND LABELLING :

This preparation is not regulated, however, we recommend the following safety precautions:

SAFETY PHRASES

S24/25 - Avoid contact with skin and eyes.

S37/39 - Wear suitable gloves and eye/face protection.

NATIONAL REGULATIONS GERMANY

WGK 1 (Annex 4)

INTERNATIONAL CHEMICAL CONTROL LAWS

EUROPE

The substance(s) in this preparation are included in or exempted from the EINECS or ELINCS inventories

Accepta is committed to and fully supports the Registration, Evaluation, Authorization and restriction of Chemicals (REACH) regulation. It is our intention to pre-register all chemical substances that we manufacture or import into European Union and to work with our suppliers to ensure a smooth transition to this new regulatory environment. Should you require any further information on Accepta's REACH programme please contact us at info@accepta.com or visit our website.

UNITED STATES

This product has not been evaluated for TSCA and may contain substances not found on the TSCA 8(b) Inventory List. This product may be used under the TSCA 5(h)(3) Research Exemption if all requirements are met.

CANADA :

The substance(s) in this preparation are included in or exempted from the Domestic Substance List (DSL).

JAPAN

All substances in this product comply with the Law Regulating the Manufacture and Importation Of Chemical Substances and are listed on the Ministry of International Trade & Industry List (MITI).

16. OTHER INFORMATION

This product material safety data sheet provides health and safety information. The product is to be used in applications consistent with our product literature. Individuals handling this product should be informed of the

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recommended safety precautions and should have access to this information. For any other uses, exposures should be evaluated so that appropriate handling practices and training programs can be established to insure safe workplace operations. Please consult your local sales representative for any further information.

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Prepared By : SHE Department
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Numbers quoted in the MSDS are given in the format: 1,000,000 = 1 million and 1,000 = 1 thousand. 0.1 = 1 tenth and 0.001 = 1 thousandth