

Product

PERMATREAT® PC-391**SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**

1.1 Product identifier: PERMATREAT® PC-391
Type of substance: CLP Mixture

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

Use of the : SCALE DISPERSANT
Substance/Mixture

1.3 Details of the supplier of the safety data sheet:

COMPANY IDENTIFICATION
NALCO EUROPE B.V.
Postbus 627
2300 AP Leiden, The Netherlands
TEL: 0031 71 5241100

LOCAL COMPANY IDENTIFICATION
Nalco Ltd.
P.O. BOX 11, WINNINGTON AVENUE
NORTHWICH, CHESHIRE, U.K. CW8 4DX
TEL: +44 (0)1606 74488

For additional copies of an MSDS visit www.nalco.com and request access.
For Product Safety information please contact: EUProductSafety@nalco.com

1.4 Emergency telephone number: +32-(0)3-575-5555 Trans-European

Date of Compilation/Revision:: 03.10.2012
Version Number: 1.0

SECTION 2. HAZARDS IDENTIFICATION**2.1 Classification of the substance or mixture:****Classification according to Regulation (EC) No 1272/2008**

This product is not classified according to (EC) Regulation (No) 1272/2008

Classification according to EU Directives 67/548/EEC or 1999/45/EC

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

2.2 Label elements:**Labelling according to Regulation (EC) No 1272/2008**

This product is not classified, however, we recommend the following Precautionary Statements:

Precautionary Statements

P202 Do not handle until all safety precautions have been read and understood.
P262 Do not get in eyes, on skin, or on clothing.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Product

PERMATREAT® PC-391

P314 Get medical advice/ attention if you feel unwell.

Supplemental information:

EUH210 Safety data sheet available on request.

2.3 Other hazards:

None known

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixture:

This product is not classified according to (EC) Regulation (No) 1272/2008

SECTION 4. FIRST AID MEASURES

4.1 Description of necessary first-aid measures:

In event of emergency assess the danger before taking action. Do not put yourself at risk of injury. If in doubt, contact emergency

INHALATION

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

SKIN CONTACT

Immediately flush with plenty of water for at least 15 minutes. Get medical attention. For a large splash, flood body under a shower.

EYE CONTACT

Immediately flush with plenty of water for at least 15 minutes. Get medical attention.

INGESTION

Seek medical advice immediately, showing the label and/or SDS. If conscious, washout mouth and give water to drink. If unconscious, do not give anything by mouth, place in the recovery position, check breathing and pulse. If necessary give artificial respiration.

PROTECTION FOR FIRST AID PERSONNEL

Wear adequate personal protective equipment.

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

A review of available data does not identify any symptoms from exposure not previously mentioned.

4.3 Indication of immediate medical attention and special treatment needed:

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

Product

PERMATREAT® PC-391**SECTION 5. FIRE-FIGHTING MEASURES****5.1 Extinguishing media:**

SUITABLE 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.

5.2 Special hazards arising from the substance or mixture:

May evolve oxides of carbon (COx) under fire conditions. May evolve oxides of nitrogen (NOx) under fire conditions. May evolve oxides of phosphorus (POx) under fire conditions. Not flammable

In the event of a spill, prevent material and fire water from entering sewers or waterways.

5.3 Advice for firefighters:

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

SECTION 6. ACCIDENTAL RELEASE MEASURES**6.1 Personal precautions, protective equipment and emergency procedures:**

ADVICE FOR NON-EMERGENCY PERSONNEL

For small spills i.e. For <10 litres Ensure clean-up is conducted by trained personnel only. Use personal protective equipment recommended in Section 8 (Exposure Controls/Personal Protection). Restrict access to area as appropriate until clean-up operations are complete. Large spills should only be cleaned up by emergency responders.

For >10 liters Notify emergency personnel immediately. Use personal protective equipment recommended in Section 8 (Exposure Controls/Personal Protection). Restrict access to area as appropriate until clean-up operations are complete.

Ventilate spill area if possible. Ensure clean-up is conducted by trained personnel only. Have emergency equipment (for fires, spills, leaks, etc.) readily available. Notify appropriate government, occupational health and safety and environmental authorities.

ADVICE FOR EMERGENCY RESPONDERS

Restrict access to area as appropriate until clean-up operations are complete. Use personal protective equipment recommended in Section 8 (Exposure Controls/Personal Protection). Ventilate spill area if possible. Ensure clean-up is conducted by trained personnel only. Have emergency equipment (for fires, spills, leaks, etc.) readily available. Notify appropriate government, occupational health and safety and environmental authorities.

6.2 Environmental precautions:

In the event of a spill, prevent material from entering sewers or waterways. Do not allow material to contaminate ground water system. Prevent product from entering drains. If drains, streams, soil or sewers become contaminated, notify local authority.

Product

PERMATREAT® PC-391

6.3 Methods and materials for containment and 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).

6.4 Reference to other sections:

Use personal protective equipment recommended in Section 8 (Exposure Controls/Personal Protection). Dispose of material in compliance with regulations indicated in Section 13 (Disposal Considerations).

SECTION 7. HANDLING AND STORAGE

7.1 Precautions for safe handling:

HANDLING

Prevent contact with skin, eyes and clothing. Use with adequate ventilation. Do not breathe vapors/gases/dust. Keep the containers closed when not in use. Ensure all containers are labeled. Have emergency equipment (for fires, spills, leaks, etc.) readily available. Use personal protective equipment recommended in Section 8 (Exposure Controls/Personal Protection).

Refer to section 6.2 for Environmental Precautions

HYGIENE RECOMMENDATIONS

Use good work and personal hygiene practices to avoid exposure. Keep an eye wash fountain available. Keep a safety shower available. Always wash thoroughly after handling chemicals. When handling this product never eat, drink or smoke. Eye wash station and safety shower are necessary. If clothing is contaminated, remove clothing and thoroughly wash the affected area. Launder contaminated clothing before reuse. Always wash thoroughly after handling chemicals. When handling this product never eat, drink or smoke.

7.2 Conditions for safe storage, including any incompatibilities:

STORAGE CONDITIONS

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

SUITABLE CONSTRUCTION MATERIAL

PVC, Polyethylene, Stainless Steel 304, Polypropylene, 100% phenolic resin liner

UNSUITABLE CONSTRUCTION MATERIAL

Brass, Buna-N, Hypalon, Neoprene, Polyurethane, Viton

7.3 Specific end uses:

Specific use(s) :

SCALE DISPERSANT

Product

PERMATREAT® PC-391

SECTION 8.	EXPOSURE CONTROLS/PERSONAL PROTECTION
-------------------	--

8.1 Control parameters:

OCCUPATIONAL EXPOSURE LIMITS

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

8.2 Exposure controls:

ENGINEERING MEASURES:

General ventilation is recommended. The use of local exhaust ventilation is recommended to control emissions near the source. Laboratory samples should be handled in a fumehood. Provide mechanical ventilation of confined spaces.

PERSONAL PROTECTIVE EQUIPMENT

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.

EYE/FACE 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.

SKIN 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.

When handling this product, the use of overalls is recommended. The applicable European standard can be found in EN ISO 20345.

RESPIRATORY PROTECTION

No exposure limits have been assigned to this product or its components. Nalco recommend the use of a half face filter mask or air supplied breathing apparatus. 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.

Product

PERMATREAT® PC-391**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

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

9.1 Information on basic physical and chemical properties:

PHYSICAL STATE	Liquid
APPEARANCE	Colorless Clear
Odour	None
Odour Threshold	No data available.
pH (100 %)	11.0
MELTING POINT / FREEZING POINT / POUR POINT	No data available.
INITIAL BOILING POINT / BOILING RANGE	No data available.
FLASH POINT	Not flammable
EVAPORATION RATE	No data available.
FLAMMABILITY (solid, gas)	No data available.
LOWER EXPLOSION LIMIT	No data available.
UPPER EXPLOSION LIMIT	No data available.
VAPOR PRESSURE	No data available.
VAPOR DENSITY	No data available.
Relative density	1.1 (15 °C)
DENSITY	No data available.
SOLUBILITY IN WATER	Complete
OCTANOL/WATER COEFFICIENT (log Kow)	No data available.
AUTOIGNITION TEMPERATURE	No data available.
DECOMPOSITION TEMPERATURE	No data available.
VISCOSITY	No data available.
EXPLOSIVE PROPERTIES	Not applicable
OXIDIZING PROPERTIES	Not applicable

9.2 Other information:

Not applicable

SECTION 10. STABILITY AND REACTIVITY**10.1 Reactivity:**

Stable under normal conditions.

10.2 Chemical stability:

Stable under normal conditions.

10.3 Possibility of hazardous reactions:

Hazardous polymerization will not occur.

Product

PERMATREAT® PC-391

10.4 Conditions to avoid:

Extremes of temperature

10.5 Incompatible materials:

Contact with strong oxidizers (e.g. chlorine, peroxides, chromates, nitric acid, perchlorate, concentrated oxygen, permanganate) may generate heat, fires, explosions and/or toxic vapors. Contact with strong acids (e.g. sulfuric, phosphoric, nitric, hydrochloric, chromic, sulfonic) may generate heat, splattering or boiling and toxic vapors.

10.6 Hazardous decomposition products:

Under fire conditions: Oxides of carbon, Oxides of nitrogen, Oxides of phosphorus

SECTION 11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:

Product:

- Acute oral toxicity : Based on available data, the classification criteria are not met.
- Acute inhalation toxicity : Based on available data, the classification criteria are not met.
- Acute dermal toxicity : Based on available data, the classification criteria are not met.
- Skin corrosion/irritation : Based on available data, the classification criteria are not met.
- Serious eye damage/eye irritation : Based on available data, the classification criteria are not met.
- Respiratory or skin sensitization : Based on available data, the classification criteria are not met.
- Genotoxicity
- Assessment : Contains no ingredient listed as a mutagen
- Carcinogenicity : Based on available data, the classification criteria are not met.
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).
- Reproductive toxicity : Based on available data, the classification criteria are not met.
Assessment: No toxicity to reproduction
- STOT - single exposure : Remarks: Based on available data, the classification criteria are not met.
- STOT - repeated exposure : Based on available data, the classification criteria are not met.
- Aspiration toxicity : No aspiration toxicity classification

Product

PERMATREAT® PC-391**SECTION 12. ECOLOGICAL INFORMATION****12.1 Toxicity:**

The following results are for the active components.

Product:

- Toxicity to fish : LC50: 160 mg/l, 96 hrs, Rainbow Trout, Test substance:
Active Substance
: LC50: > 5,000 mg/l, 96 hrs, Sheepshead Minnow, Test
substance: Active Substance
: LC50: > 300 mg/l, 96 hrs, Bluegill Sunfish, Test substance:
Active Substance
- Toxicity to daphnia and other : EC50: 297 mg/l, 48 hrs, Daphnia magna, Test substance:
aquatic invertebrates. Active Substance

Ecotoxicology Assessment

- Acute aquatic toxicity : Not expected to be harmful to aquatic organisms.
Chronic aquatic toxicity : Not expected to demonstrate chronic toxicity to aquatic
organisms

12.2 Persistence and degradability:**Product:**

- Biodegradability : The organic portion of this preparation is expected to be
readily biodegradable.

12.3 Bioaccumulative potential:**Product:**

- Bioaccumulation : This preparation or material is not expected to bioaccumulate.

12.4 Mobility in soil:**Product:**

- Environmental fate and : This substance is water soluble and is expected to remain
pathways primarily in water.

12.5 Results of PBT and vPvB assessment:**Product:**

- Assessment : This mixture contains no substance considered to be
persistent, bioaccumulating nor toxic (PBT)., This mixture
contains no substance considered to be very persistent nor
very bioaccumulating (vPvB).

12.6 Other adverse effects:**Product:**

Product

PERMATREAT® PC-391

Additional ecological information : No adverse effects expected.

SECTION 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.

13.1 Waste treatment methods:

Contact an approved waste hauler for disposal of contaminated recovered material. Any chemical waste is a potential environmental pollutant and is NOT suitable for disposal via ground, municipal sewers, drains, natural streams or rivers. 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. 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.

SECTION 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

- 14.1 UN number:** not applicable
- 14.2 UN proper shipping name:** PRODUCT IS NOT REGULATED DURING TRANSPORTATION
- 14.3 Transport hazard class(es):** not applicable
- 14.4 Packing group:** not applicable
- 14.5 Environmental hazards:** No
- 14.6 Special precautions for user:** not applicable

AIR TRANSPORT (ICAO/IATA)

- 14.1 UN number:** not applicable
- 14.2 UN proper shipping name:** PRODUCT IS NOT REGULATED DURING TRANSPORTATION
- 14.3 Transport hazard class(es):** not applicable
- 14.4 Packing group:** not applicable
- 14.5 Environmental hazards:** No
- 14.6 Special precautions for user:** not applicable

MARINE TRANSPORT (IMDG/IMO)

- 14.1 UN number:** not applicable
- 14.2 UN proper shipping name:** PRODUCT IS NOT REGULATED DURING TRANSPORTATION
- 14.3 Transport hazard class(es):** not applicable

Product

PERMATREAT® PC-391

14.4 Packing group: not applicable
14.5 Environmental hazards: No
14.6 Special precautions for user: not applicable
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: not applicable

SECTION 15. REGULATORY INFORMATION**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:****INTERNATIONAL CHEMICAL CONTROL LAWS****EUROPE**

Safety Data Sheet according to Regulation (EC) No 1907/2006.

Nalco 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 Nalco's REACH programme please contact us at reach@nalco.com or visit our website.

CANADA

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

UNITED STATES

The substances in this preparation are included on or exempted from the TSCA 8(b) Inventory (40 CFR 710)

NATIONAL REGULATIONS GERMANY

WGK: 1 (Annex 4)

NATIONAL REGULATIONS HOLLAND**15.2 Chemical Safety Assessment:**

No Chemical Safety Assessment has been carried out.

SECTION 16. OTHER INFORMATION**LIST OF RELEVANT R-PHRASES, NOTAS AND HAZARD STATEMENTS IN SECTION 2.1 AND 3**

Not applicable

REVISED INFORMATION: section(s): 2 4 6 7 8 11 12 16

This product Safety Data Sheet provides health, safety, and regulatory information. The information contained in this Safety Data Sheet is based on data available to us at the date of issue, and is provided in good faith, and believed to be accurate and reliable at the date of issue, however, no warranty, express or implied is provided, and Nalco disclaims all liability for reliance on such information. The product is to be used in applications consistent with Nalco's product literature. For any other uses, exposures should be evaluated so that the appropriate handling practices and training programs can be established to ensure safe working conditions and operations. It is the buyer's/user's responsibility to satisfy itself that the product is suitable for the intended use, and to ensure that its activities comply with all federal, state, provincial, or local laws and regulations. Regulatory requirements are subject to change and may differ between European Member States and Nations.

Product

PERMATREAT® PC-391

Individuals handling this product should be informed of the recommended safety precautions and should have access to this information. Please consult your local sales representative for any further information.

REFERENCES

IARC Monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Man, Geneva: World Health Organization, International Agency for Research on Cancer.

Ariel Insight™ (An integrated guide to industrial chemicals covered under major regulatory and advisory programs), North American Module, Western European Module, Chemical Inventories Module and the Generics Module (Ariel Insight™ CD-ROM Version), Ariel Research Corp., Bethesda, MD.

The possible key literature references and data sources which may have been used in conjunction with the consideration of expert judgment to compile this Safety Data Sheet: European regulations/directives (including (EC) No. 1907/2006, (EC) No. 1272/2008, 67/548/EEC, 1999/45/EC), supplier data, inter-net, ESIS, IUCLID, ERICards, Non European official regulatory data and other data sources.

Date issued : 03.10.2012
Version Number : 1.0
Prepared By: SHE Department

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