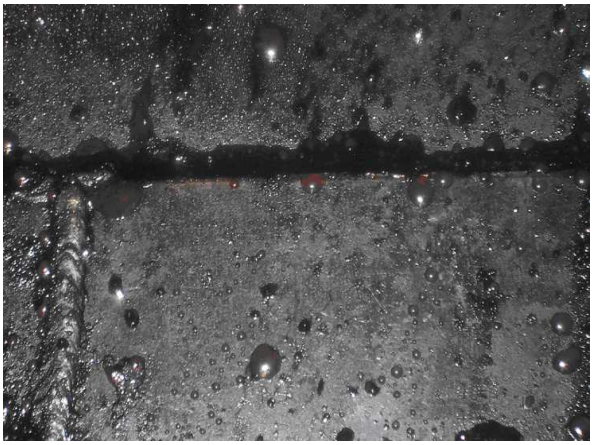
The CYTOCLEAN® Process

and the way of application

for Shoretank and Pipeline cleaning



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Our CATCO - TEAM

Everywhere mineraloil is produced, forwarded, treated and stored, the managers in charge aim to handle all this in view of natural and environmental requirement.

To demand on this requirement within your responsibility, we have build our CATCO – Team, that is on your side in all questions of environmental friendly tankcleaning and effective, cost-saving cleanup of mineraloil contamination, including complete-recycling.

This assistance includes consultancy, support and practicle actions at any location. The CATCO – Service is based on 24/7 and guided by:

ANYWHERE – ANYTIME – ON YOUR SIDE TO ASSIST

Our offer is based on three supporting pillars:

- ***environmental friendly, biological and non-toxic cleanup without producing of additional dangerous waste.***

- ***minimizing of cost-structure by complete recycling***

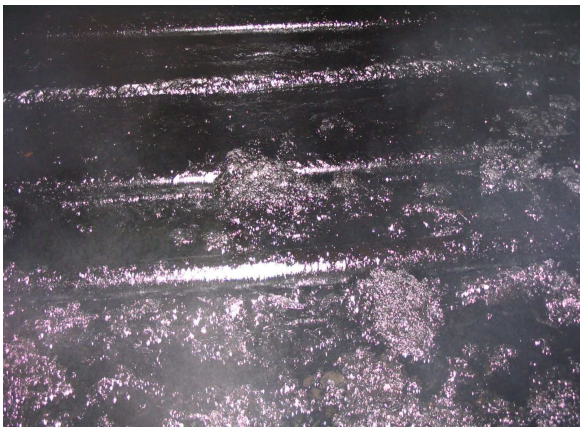
- ***customer oriented, open minded consultancy and support, including effective cleanup taskforce available at any location.***

Shoretankcleaning by CYTOCLEAN® – Process

The cleanup work of mineraloil-tanks, if shoretank, shipstank or of road- and rail-tankers, in most cases require extrem high amount of costs and energy. A significant part of the total costs is spent for treatment of the dangerous residues remaining.

Known processes, regulary washing of the tank by chemicals and water, result a constant emulsion of oil and water. This requires an extraordinary complexity for separation.
In consequence the amount of dangerous waste and followup costs for further treatment is on extremly high level.
The recycling of the oil also requires additional high-level expenses.

In furture costs caused by environmental burden will extremly increase the combustion of this residues.



View into the tank before cleaning with CYTOCLEAN® – Process

The solution offered by the CYTOCLEAN® – Process will limit this costs to the best possible low-level.

- The CYTOCLEAN® – Process allows a 100% separation of oil and water without requirement of any additional treatment.

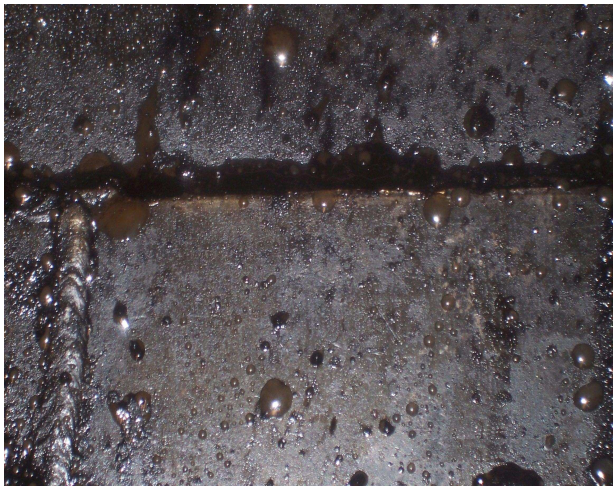
- Regarding this special and environmental-friendly treatment, no dangerous residues will remain!

- This means NO additional treatment for oil or water and NO disposal cost

In conclusion:

The CYTOCLEAN®– Process is the best possible value for cleaning of all kind of Mineraloil – Tanks.

Have a view into the above shown tanks after they have been treated with the CYTOCLEAN® – Process to imagine the extraordinary result on cleanliness



Pipeline inside the tank and Tankbottom after treatment with the CYTOCLEAN® - Process

Material safety data sheet in accordance with EC Directive 91/155/EEC

Product and Producer

Product name:
CYTOCLEAN®
Producer:
GLOBAL - CONCEPT GmbH
Gustav-Heinemann - Strasse 22
26919 Brake / Germany
All enquiries to:
Tel.: +49 4401 704090
Fax: +49 4401 704092
Emergency information:
Contact National emergency call number or NPIS via a physician

Composition, Information on Ingredients

Chemical characterization:
Vegetable oil methyl ester with additives, CAS-No.: 73891-99-3

Hazard Identification

Not classified. No currently known hazards. Use according to technical data sheet.

First-Aid Measures

If handled with due care and according to manufacturers application guidelines no special measures are required. In some cases minor effects on health may be expected. Please adopt the following measures:
In case of inhalation: Non-irritating or toxic, however in case of affliction please remove to fresh air as a precaution.
In case of skin contact: May in some cases of high sensitivity cause mild irritation. If afflicted, please wash contact area with soap and water.
In case of eye contact: If irritation occurs, lift eyelid and flush eye immediately with cool fresh water for at least 10 Minutes. Do not rub the affected eye! If irritation persists, or any sign of tissue damage is apparent, consult a physician.
In case of ingestion: Generally not toxic, but as a precaution swill mouth generously with water. Do not induce vomiting. If ingested in conjunction with alcohol or medicines, seek medical advice immediately.

Fire-fighting Measures

Extinguishing media: Foam, dry chemical powder, CO^2, sand or earth.
Measures to be avoided: Do not spray water directly on flames.
Special hazards: Flammable. In case of fire, toxic gases or vapours as well as CO and CO_2 may be formed.
Special fire fighting equipment: Wear suitable protective clothing. Self-contained breathing apparatus is necessary in the danger area if ventilation is poor.

Accidental Release Measures

Personal safety precautions: Avoid prolonged eye or skin contact.
Environmental precautions: Although biodegradable, please prevent spillage into public drainage or local water systems. Prevent further spreading by using sand, earth or other suitable barriers.
General Precautions: Prevent open fire.
Methods for cleaning/removal: In case of excessive spillage bind material with suitable absorbent substrate. Dispose to an approved waste disposal site, observing all local and national regulations.

Handling and Storage

Handling: Avoid prolonged eye or skin contact. Keep away from open fires. Observe general regulations for handling of chemicals.
Storage: Store in dry containers in well ventilated surroundings. Keep containers closed and prevent exposure to direct sunlight and heat sources. Avoid contact with strong oxidizing agents.
Storage classification: VCI - Classification 10

Exposure Control, Personal Protection

Occupational Exposure to Product: No specific exposure time limitation.
Specific equipment required in handling: No special equipment required.
Inhalation protection: No special equipment required.
Eye protection: Generally not required, but advisable when transferring product between storage containers.
Skin protection: Wearing of protective gloves is advised in cases of prolonged contact.
General Precautions: Observe general regulations for handling of chemicals.

Physical and Chemical Properties

Form: Liquid
Colour: Light green to amber
Odour: Weak characteristic odour.
Freezing point: approx. -20°C
Ignition point: Not known.
Flash point: 180 °C according to DIN 51758 / ISO 2719
Explosion point: Not known.
Boiling point: approx. 300 °C
Cloud point: -8 °C
Pour point: -10 °C
Specific density (20°C): 0.875 – 0.885 kg/l
Solubility (20 °C): Insoluble in water.
Kinematic viscosity (40 °C): 4.0 mm^2/s DIN 51562
Kinematic viscosity (100 °C): 1.7 mm^2/s DIN 51562

Stability and Reactivity

Stability: Stable if handled within guidelines and usual good practice.
Special situations to be avoided: None, if handled within guidelines and usual good practice.
Materials to avoid: Avoid contact with strong acids, bases or oxidizing agents.
Hazardous decomposition products: None, if handled within guidelines and usual good practice.

Toxicological Information

Toxicity: LD_{50} (oral, rat) > 2000 mg/kg body weight.
Toxicological Data:
Inhalation: May cause headache and dizziness if handled inappropriately.
Eye irritation: Non irritating (Rabbit, OECD-Method 405)
Skin sensitisation: None known.
Skin irritation: Non irritating (Rabbit, OECD-Method 404)
General remarks: Prolonged and intensive exposure to the skin may cause degreasing, dry skin and in the case of extremely sensitive persons lead to dermatitis.

Ecological information

Information for all components:
Aquatic toxicity:
Fish toxicity: Acute, LC_{50} > 100 mg/l
Bacteria toxicity: Acute, EC_{50} > 100 mg/l
Biotic degradation: Product components are classed easily biodegradable (OECD A-F test results at least 60% BSB/CSB or 70% DOC degradability within 28 days).
Half-life time biodegradation in seawater is expected within 4 days (EPA standard biodegradation assessment), with bio-degradation to water and CO_2 components completed within 28 days.

Disposal Information

Comply with local regulation for waste disposal to an approved waste disposal site, observing all local and national regulations. Spent or unused remnants of the product are not to be disposed of via the sewerage system. Consign empty container to normal waste.

Transport Information

Non-dangerous or hazardous cargo (in accordance with RID/ADR, GVS/GGVE, ADNR, IMDG, ICAO-TI/IATA-DGR).

Regulatory Information

Classification and labelling in accordance with EC regulations for dangerous and hazardous cargos:
Labelling: not necessary
Risk phrases: N/A
Safety phrases: N/A
Water pollution class: WGK 1

Additional Information

The above information is based on the present state of our knowledge of the product at the time of publication.
The information is given in good faith; no warranty is implied with respect to the quality or the specification of the product. The product is of natural origin and may vary in its properties within given tolerances. The user must satisfy himself that the product is entirely suitable for the purpose. The information contained in this safety data sheet does not in itself constitute a workplace risk assessment as may be required to be carried out under COSHH Regulations.