

 OilFlux TM	Material Safety Data Sheet WAS	Page 1 of 6
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1.- Identification of the preparation and of the company

- 1.1 - **Name:** **WAS**
- 1.2 - **Product Applications:** Fluidification of the mass of the crude oil that contains asphaltenes.
- 1.3 - **Producer:** **DIQUECINCO 2013, SL**
Calle Arago, 284 bis
08007 Barcelona (Spain)
- 1.4 - **Responsible for MSDS:**
- 1.5 - **Emergency telephone:**

2.- Hazards identification

- 2.1 - **Classification of the product:**
Class: Flammable liquid. Category: 3 (H226)
- 2.2 - **Symbols and Risk Phrases:**
Irritant.
It may cause adverse effects in the aquatic environment in the long term.
Flammable.



- 2.3 -. **Hazards to health:**
- 2.3.1 - Inhalation: Aspiration hazard. Category: 4 (H332)
- 2.3.2 - Skin Contact: Dermal irritation. Category: 4 (H312)
- 2.3.3 - Eye Contact: Eye irritation. Category: 2 (H319)
- 2.4 -. **Environmental hazards:**
- 2.4.1 - Hazardous to the aquatic environment. Category: 2 (H411)
- 2.5 -. **Physicochemical hazards:**
- 2.5.1 - Flammable liquid. Category: 3 (H226)
- 2.6 - **Specific hazards:**
Fumes heavier than air, it displaces the oxygen from the air.

3.- Composition / Information on components

- 3.1 - **Chemical Description:**
Mixture of hydrocarbons and surfactants.
- 3.2 - **Components:**
Hydrocarbons

 OilFlux TM	Material Safety Data Sheet WAS	Page 2 of 6
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4.- First Aid.

- 4.1 - Eye Contact:**
Produces irritation. In case of contact, wash thoroughly with water for 15 minutes. Seek medical assistance.
- 4.2 - Contact with skin:**
Remove contaminated clothing. Wash affected areas with soap and water.
- 4.3 - Ingestion:**
Do not induce vomiting to avoid aspiration into the lungs. Request immediate medical attention.
- 4.4 - Inhalation:**
Remove the affected person to fresh air. If breathing is difficult, administer artificial respiration or give oxygen. Seek medical assistance.

5.- Firefighting measures

- 5.1 - Fire-fighting media:**
Water spray. Foam. Dry Chemical.
- 5.2 - NOT Suitable fire-fighting Media:**
Do not use direct water stream.
- 5.3 - Special hazards of exposure to fire:**
Flammable and combustible material. It can be ignited by heat, flame, sparks or electricity. Fumes are heavier than air and may travel to reach remote ignition sources and ignite. The containers may explode in the vicinity of a fire due to overheating.
- 5.4 - Personal Protective Equipment:**
Heat resistant garments to combat fire. If there is a high concentration of vapors or fumes use a self-contained breathing apparatus (SCBA).

6.- Measures in case of accidental spillage

- 6.1 - Personal precautions:**
Avoid prolonged contact with the product and with contaminated clothing. Stay out of the flow of fumes and prevent their entry into enclosed spaces. Close access to all nearby ignition sources.
- 6.2 - Environmental precautions:**
Harmful to aquatic organisms. It may cause adverse effects in the aquatic environment in the long term.
- 6.3 - Methods of cleaning:**
Small Spills: Wipe the surface with fire-resistant and absorbent materials. Place the waste in closed containers for later disposal.
Large spills: Cover the spill with foam to prevent the formation of a vapor cloud. Apply barriers to prevent liquid from spreading and act in the same way as in small spills.

7.- Handling and storage.**7.1 - Handling:**

Maintain storage areas well ventilated.
Keep away from ignition sources.
Open containers slowly to control possible depressurizations.
Apply the rules of good practice and hygiene for the handling of chemical products.
Have any absorbent material in anticipation that a spill will occur.

7.2 - Storage:

Store in cool and well-ventilated places.
Keep away from ignition sources.
Keep closed all the containers and stored vertically.
Keep within the range of 10° C to 40° C.

7.3 - Specific Uses:

For known uses of the product.
Fluidification of the mass of the crude oil that contains asphaltenes.

8.- Exposure controls / personal protection.**8.1 - Exposure Limit Values:**

No data available.

8.2 - Exposure controls.

Odorous threshold detection: 1 ppm

8.2.1 - Collective Protection:

Provide adequate ventilation

8.3 - Personal Protective Equipment.**8.3.1- Respiratory protection:**

Protective respiratory mask in the presence of fumes, or self-contained equipment when high concentrations occur.

8.3.2 - Protection of hands:

Wear gloves to protect against solvents.

8.3.3 - Eye protection:

Use safety glasses with side shields.

8.3.4 - Skin protection:

Wear standard work garments.

8.4 - Additional Information:

Do not eat, drink or smoke while working. Wash hands after use.
Change contaminated clothing.
Wash the whole body after work.
You should always have a safety shower and eyewash equipment in the area where the product is handled.
Recommended to have preventive skin care cream.
Use antistatic footwear.

8.5 - Exposure Controls Environment:

Avoid spills and leaks in the basement. Avoid contaminating waterways and dumping the product in the sewage systems.

9.- Physical and chemical properties


- 9.1 - Overview:**
 Characteristic odor of hydrocarbons.
 Odorous threshold of detection: 1 ppm
 Light bluish green liquid.
- 9.2 - Important health, safety and environmental information:**
- | | |
|---------------------------------------|---------------|
| pH | 6.8 – 7.5 |
| Boiling Point | 100°C - 120°C |
| Flammable Point | 50°C |
| Auto-Ignition temperature | > 200 °C |
| Relative density (water = 1) at 20° C | 0.83 |
| Solubility in water | insoluble. |

10.- Stability and reactivity

- 10.1 - Reactivity:**
 Avoid contact with strong oxidizers, strong acids and halogens.
- 10.2 - Chemical stability:**
 Product stable under the handling and storage conditions recommended in section # 7
- 10.3 - Conditions to avoid:**
 Avoid sources of ignition.
- 10.4 - Materials to avoid:**
 Avoid contact with strong oxidizers, strong acids and halogens.
- 10.5 - Hazardous decomposition products:**
 In the event of a fire, the product may emit hazardous decomposition products, such as carbon monoxide and carbon dioxide.

11.- Toxicological information

- 11.1 - Acute oral toxicity:**
 Not available.
- 11.2 - Acute dermal toxicity:**
 Not available.
- 11.3 - Acute inhalation toxicity:**
 The aspiration into the lungs as a result of ingestion and subsequent vomiting, may leads to pulmonary edema.
- 11.4 - Skin irritation:**
 Irritant. Dermatological conditions.
- 11.5 - Eye irritation:**
 Irritant.
- 11.6 - Chronic Health Effects:**
 Repeated exposures may produce respiratory tract irritation, skin irritation, muscle weakness, anemia and alteration of lymphocytes in the blood.

 OilFlux TM	Material Safety Data Sheet WAS	Page 5 of 6
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12.- Ecological information.

12.1 - Ecotoxicity:

Toxic to aquatic organisms. In the long term it may cause adverse effects in the aquatic environment.

12.2 - Mobility:

Was removed by emulsion with surfactants.

12.3 - Persistence and biodegradability:

High potential physical contamination. If it is dump into the environment, the more volatile components evaporate and oxidize and the remaining components will biodegrade.

13.- Terms of elimination

13.1 - Waste Disposal:

If the product needs to be managed as waste, the final user must do so in accordance with local regulations.

For disposal authorized agents and carriers should be used.

Materials contaminated by the product require the same precautions as the product and should be considered toxic and hazardous waste.

Never disposal in the sewer.

13.2 - Disposal of containers:

The containers must be managed as waste in accordance with point 13.1

14.- Transport information.

Transport in sealed containers that are upright and secure.

Ensure that persons transporting the product know what to do in case of an accident or spillage.

UN Number:

UN 1993, Flammable liquid, NOS. (Hydrocarbon mixture with kerosene).
Class 3. Packing Group III.

14.1 - Transport by Road (ADR):

UN Number: UN 1993 Flammable liquid, NOS. (Hydrocarbon mixture with kerosene).
Class 3. Packing Group III.

14.2 - Sea transport (IMDG):

UN Number: UN 1993 Flammable liquid, NOS. (Hydrocarbon mixture with kerosene).
Class 3. Packing Group III.

14.3 - Rail transport (RID):

UN Number: UN 1993 Flammable liquid, NOS. (Hydrocarbon mixture with kerosene).
Class 3. Packing Group III.

14.4 - Air transport (ICAO / IATA):

UN Number: UN 1993 Flammable liquid, NOS. (Hydrocarbon mixture with kerosene).
Class 3. Packing Group III.

 TM	Material Safety Data Sheet WAS	Page 6 of 6
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15.- Regulatory information

15.1 - Hazard symbols:



15.2 - Risk phrases:

Flammable liquid.

Irritant.

Aspiration hazard.

Respiratory and skin sensitization.

Eye irritation.

Hazardous to the aquatic environment in the long term.

15.3 - Safety phrases:

Keep out of reach of children.

(H332). Category: 4. Do not breathe fumes.

(H312). Category: 4. Avoid skin contact.

(H226). Category: 3. In case of fire use water spray, foam or dry chemical. Do not use pressurized water jet.

(H411). Category: 2. Avoid release to the environment.

If swallowed, do not induce vomiting. Seek medical advice and show the package label.

15.4 - Additional Information:

Conforms to Regulation (EC) 1272/2008.

16.- Other Information

16.1 - Applicable R and H phrases:

Irritating to skin.

It may cause adverse effects in the aquatic environment in the long term.

Harmful by inhalation.

16.2 - Additional Recommendations:

Observe the legal ordinances on chemicals products.

16.3 - Technical point of contact:

In regards to the product: Technical Department. Phone

In regards to the Material Safety Data Sheet: Technical Department. Phone

16.4 - Review of the Material Safety Data Sheet:

All the points in this Material Safety Data Sheet has been reviewed.

16.5 - Further information.