

Safety Data Sheet EnviroSurf 12

SECTION 1: Identification

1.1 Product identifier

Product name	EnviroSurf 12
Product number	ES12

1.3 Recommended use of the chemical and restrictions on use

Well Flow Aid

1.4 Supplier's details

Name	Downhole Chemical Solutions
Address	1 Cowboys Way #572 Frisco Texas 75034
Telephone	469-466-1100

1.5 Emergency phone number(s)

1-888-255-3924 US (ChemTel)
1-813-248-0585 International (ChemTel)

SECTION 2: Hazard identification

2.1 Classification of the substance or mixture

GHS classification in accordance with: OSHA (29 CFR 1910.1200)

- Eye damage/irritation, Cat. 1
- Skin corrosion/irritation, Cat. 2
- Specific target organ toxicity (repeated exposure), Cat. 2

2.2 GHS label elements, including precautionary statements

Pictogram



Signal word

Danger

Hazard statement(s)

H315
H318
H373

Causes skin irritation
Causes serious eye damage
May cause damage to organs [Kidney] through prolonged or repeated exposure if swallowed

Safety Data Sheet

Envirosurf 12

Precautionary statement(s)

P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P264	Wash hands thoroughly after handling.
P280	Wear eye protection/face protection/protective gloves.
P302+P352	IF ON SKIN: Wash with plenty of water.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER or doctor.
P314	Get medical advice/attention if you feel unwell.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P501	Dispose of contents/container in accordance with national regulations.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Hazardous components

Component	Concentration
Component 1 (trade secret)*	5 – 10 % (weight)*
Component 2 (trade secret)*	1 – 5 % (weight)*
Component 3 (trade secret)*	1 – 5 % (weight)*
Component 4 (trade secret)*	1 – 5 % (weight)*
Component 5 (trade secret)*	1 – 5 % (weight)*
Component 6 (trade secret)*	1 – 5 % (weight)*
Component 7 (trade secret)*	1 – 5 % (weight)*
Component 8 (trade secret)*	1 – 5 % (weight)

Trade secret statement (OSHA 1910.1200(i))

*The specific chemical identities and/or actual concentrations or actual concentration ranges for one or more listed components are being withheld as trade secrets under the US regulation 29 CFR 1910.1200(i).

SECTION 4: First-aid measures

4.1 Description of necessary first-aid measures

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.
If inhaled	Remove person to fresh air and keep comfortable for breathing. Call a poison center or doctor if you feel unwell. Acute and delayed symptoms and effects: May cause respiratory irritation. Signs/symptoms may include burning pain in the nose and throat, coughing, wheezing, shortness of breath and pulmonary edema.
In case of skin contact	Wash with plenty of water for at least 15 minutes. Call a poison center or doctor if irritation develops or persists. Take off contaminated clothing and wash it before reuse. Acute and delayed symptoms and effects: Causes skin irritation. Signs/symptoms may include localized redness, swelling, and itching.
In case of eye contact	Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor.

Safety Data Sheet

Envirosurf 12

Acute and delayed symptoms and effects: Causes serious eye damage. Signs/symptoms may include cloudy appearance of the cornea, chemical burns, severe pain, tearing, ulcerations, significantly impaired vision or complete loss of vision.

If swallowed

Call a poison center or doctor if you feel unwell. If vomiting occurs naturally, have victim lean forward to reduce the risk of aspiration. Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.

Acute and delayed symptoms and effects: May cause gastrointestinal irritation. Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

4.2 Most important symptoms/effects, acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11

4.3 Indication of immediate medical attention and special treatment needed, if necessary

No data available.

SECTION 5: Fire-fighting measures

5.1 Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Specific hazards arising from the chemical

Carbon oxides, Nitrogen oxides (NO_x)

5.3 Special protective actions for fire-fighters

Avoid any skin contact. Effects of contact or inhalation may be delayed. Fire may produce irritating, corrosive and/or toxic gases. Runoff from fire control or dilution water may be corrosive and/or toxic and cause pollution. Wear positive pressure self-contained breathing apparatus (SCBA). Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection. Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.

Further information

Use water spray to cool unopened containers.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Warning: Do not touch or walk through spilled material. Wear respiratory protection if necessary. Avoid breathing gas, mist, vapors, or spray. Ensure adequate ventilation. Evacuate personnel to safe areas. For personal protection see section 8.

6.2 Environmental precautions

Do not contaminate water

6.3 Methods and materials for containment and cleaning up

Stop leak if you can do it without risk. Sweep up and shovel into suitable containers for disposal.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Safety Data Sheet

Envirosurf 12

Do not swallow. Do not breathe mist, vapors, or spray. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. See Section 8 for information on Personal Protective Equipment.

7.2 Conditions for safe storage, including any incompatibilities

Freezing will adversely affect the quality of the product. Store locked up. Keep away from heat and sources of ignition. Store away from incompatible materials. See Section 10 for information on Incompatible Materials. Keep out of the reach of children.

Specific end use(s)

Apart from the uses mentioned in section 1 no other specific uses are stipulated.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Component 2 (trade secret)*

ACGIH (USA): 20 ppm TLV® inhalation; 20 ppm TWA inhalation; Cal/OSHA: 20 ppm PEL inhalation; 20 ppm 97 mg/m³ PEL inhalation; NIOSH: 5 ppm REL inhalation; 5 ppm 24 mg/m³ TWA inhalation; OSHA: 50 ppm PEL inhalation; 240 mg/m³ PEL inhalation; 50 ppm 240 mg/m³ TWA inhalation

Component 3 (trade secret)*

ACGIH (USA): 100 mg/m³ PEL-C inhalation; Cal/OSHA (USA): 40 ppm 100 mg/m³ PEL-C inhalation

8.2 Appropriate engineering controls

Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, gas, etc.) below recommended exposure limits.

8.3 Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection

Safety glasses with side shields or goggles. If splash hazard, wear faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Ensure that eyewash stations and/or safety showers are close to the workstation location if working with concentrated product.

Skin protection

Wear protective gloves, such as PVC or other plastic material. Consult manufacturer specifications for further information.

Body protection

Wear protective clothing. Clothing with full length sleeves and pants should be worn. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multipurpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Thermal hazards

No data available.

Environmental exposure controls

Do not let product enter drains.

SECTION 9: Physical and chemical properties

Safety Data Sheet

Envirosurf 12

Information on basic physical and chemical properties

Appearance/form (physical state, color, etc.)	Clear liquid
Odor	No data available.
Odor threshold	No data available.
pH	7 - 8
Melting point/freezing point	27°F
Initial boiling point and boiling range	No data available.
Flash point	> 140 °F
Evaporation rate	No data available.
Flammability (solid, gas)	No data available.
Upper/lower flammability limits	No data available.
Upper/lower explosive limits	No data available.
Vapor pressure	No data available.
Vapor density	No data available.
Relative density	8.4 - 8.5
Solubility(ies)	No data available.
Partition coefficient: n-octanol/water	No data available.
Auto-ignition temperature	No data available.
Decomposition temperature	No data available.
Viscosity	No data available.
Explosive properties	No data available.
Oxidizing properties	No data available.

Other safety information

No data available.

SECTION 10: Stability and reactivity

10.1 Reactivity

Contact with incompatible materials. Sources of ignition. Exposure to heat.

10.2 Chemical stability

Stable under normal storage conditions.

10.3 Possibility of hazardous reactions

No data available.

10.4 Conditions to avoid

Heat, flames and sparks. Incompatible products. Keep away from open flames, hot surfaces and sources of ignition.

10.5 Incompatible materials

Strong oxidizing agents

10.6 Hazardous decomposition products

No data available.

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

Likely Routes of Exposure: Eye contact. Skin contact. Inhalation. Ingestion.

Information on the product as supplied:

No data available

Components:

Safety Data Sheet

Envirosurf 12

Component 2

LD50 Oral - Rat - 470 mg/kg
LD50 Skin - Rabbit - 1,060 mg/kg
LC50 Inhalation - Rat - 450 ppm

Component 3

LD50 Oral - Rat - 4,700 mg/kg
LD50 Skin - Rabbit - 10,626 mg/kg

Component 4

LC50 Inhalation - Rat - > 1600 mg/l - 4 h
LD50 Skin - Rabbit - 2,500 mg/kg (calculated)

Component 6

LD50 Oral - Rat - 550 mg/kg

Component 7

LD50 Oral - Rat - 11,300 mg/kg

Symptoms (including delayed and immediate effects):

Inhalation: May cause respiratory irritation. Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

Ingestion: May cause gastrointestinal irritation. Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

Skin corrosion/irritation

Causes skin irritation. Signs/symptoms may include localized redness, swelling, and itching.

Serious eye damage/irritation

Causes serious eye damage. Signs/symptoms may include cloudy appearance of the cornea, chemical burns, severe pain, tearing, ulcerations, significantly impaired vision or complete loss of vision.

Respiratory or skin sensitization

No data available.

Germ cell mutagenicity

No data available.

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

No data available.

STOT-single exposure

No data available.

STOT-repeated exposure

Information on the product as supplied:

May cause damage to organs through prolonged or repeated exposure. - Kidney

Components:

Safety Data Sheet

Envirosurf 12

Component 4
NOAEL Ingestion - Rat - 519 mg/kg/d

Component 3
May cause damage to organs through prolonged or repeated exposure. - Kidney
Remarks: When ingested early symptoms mimic alcohol inebriation and are followed by nausea, vomiting, abdominal pain, weakness, muscle tenderness, respiratory failure, convulsions, cardiovascular collapse, pulmonary edema, hypocalcemic tetany, and severe metabolic acidosis. Without treatment, death may occur in 8 to 24 hours. Victims who survive the initial toxicity period usually develop renal failure along with brain and liver damage., Exposure to and/or consumption of alcohol may increase toxic effects.

Aspiration hazard
No data available.

SECTION 12: Ecological information

Toxicity

Information on the product as supplied:
No data available on product

Components:

Component 2
LC50 - *Oncorhynchus mykiss* (rainbow trout) - 1,474 mg/l - 96 h
EC50 - *Daphnia magna* (water flea) - 1,550 mg/l - 48 h
EC50 - *Pseudokirchneriella subcapitata* (green algae) - 1,840 mg/l - 72 h

Component 3
LC50 - *Oncorhynchus mykiss* (rainbow trout) - 18,500 mg/l - 96 h
LC50 - *Leuciscus idus* (golden orfe) - >10,000 mg/l - 48 h
Result: Bioconcentration factor (BCF): 0.60
NOEC - *Pimephales promelas* (fathead minnow) - 32,000 mg/l - 7 d
NOEC - *Pimephales promelas* (fathead minnow) - 39,140 mg/l - 96 h
EC50 - *Daphnia magna* (water flea) - 74,000 mg/l - 24 h
NOEC - *Daphnia magna* (water flea) - 24,000 mg/l - 48 h
LC50 - *Daphnia magna* (water flea) - 41,000 mg/l - 48 h

Component 4
LC50 - *Cyprinus carpio* (Carp) - 3 mg/l - 96 h
EC50 - *Daphnia magna* (water flea) - 1.9 mg/l - 48 h
ErC50 - *Desmodesmus subspicatus* (chodat) - 2.2 mg/l - 72 h
EC20 - *Daphnia magna* (water flea) - 0.98 mg/l - 21 d
EC20 - *Pimephales promelas* (fathead minnow) - 1.58 mg/l - 30 d
EC50 - *Pseudomonas putida* - > 10g/l - 16.9 h

Component 6
LC50 - *Pimephales promelas* (fathead minnow) - 14.8 mg/l - 96 h

Component 7
LC50 - *Lepomis macrochirus* (bluegill) - 1.04 mg/l - 96 h
EC50 - *Daphnia magna* (water flea) - 0.32 mg/l - 48 h
EC50 - *Pseudokirchneriella subcapitata* (green algae) - 0.46 mg/l - 72 h

Persistence and degradability

Information on the product as supplied:
No data available on product

Components:

Safety Data Sheet

Envirosurf 12

Component 4
- 28 d, Readily biodegradable

Component 3
Ratio BOD/ThBOD 0.78 %

Bioaccumulative potential

Information on the product as supplied:
No data available on product

Components:
Component 3
other fish - 50 mg/l - 61 d
Does not bioaccumulate.

Component 4
Pimephales promelas (fathead minnow) - µg/l - 3 d
Does not bioaccumulate. Bioconcentration factor (BCF): 12.7

Mobility in soil

Information on the product as supplied:
No data available on product

Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

SECTION 13: Disposal considerations

Disposal of the product

Disposal should be in accordance with applicable Federal, State and local laws and regulations. Local regulations may be more stringent than State or Federal requirements.

Disposal of contaminated packaging

Dispose of as unused product.

SECTION 14: Transport information

DOT (US)

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations specific for the product in question

SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

The following components are subject to reporting levels established by SARA Title III, Section 313:

Component 2
Component 3

Safety Data Sheet

Envirosurf 12

SARA 311/312 Hazards

Acute Health Hazard, Chronic Health Hazard

Massachusetts Right To Know Components

Component 2

Component 3

New Jersey Right To Know Components

Component 2

Component 3

Component 7

Pennsylvania Right To Know Components

Component 2

Component 3

Component 7

California Prop. 65 Components

WARNING: This product may contain a chemical known to the State of California to cause cancer and birth defects or other reproductive harm: ethylene oxide (75-21-8).

WARNING: This product contains a chemical known to the State of California to cause cancer: 1,4-dioxane (CAS 123-91-1)

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

Ethylene glycol CAS number: 107-21-1

HMIS Rating

HMIS RATINGS (Hazardous Materials Identification System)	
HEALTH	*3
FLAMMABILITY	1
REACTIVITY	0
PERSONAL PROTECTION	B

SECTION 16: Other information

16.1 Further information/disclaimer

DISCLAIMER: The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigation to determine the suitability of information for their particular purposes. In no event shall Downhole Chemical Solutions be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, whatsoever arising, even if Downhole Chemical Solutions has been advised of the possibility of such damages.