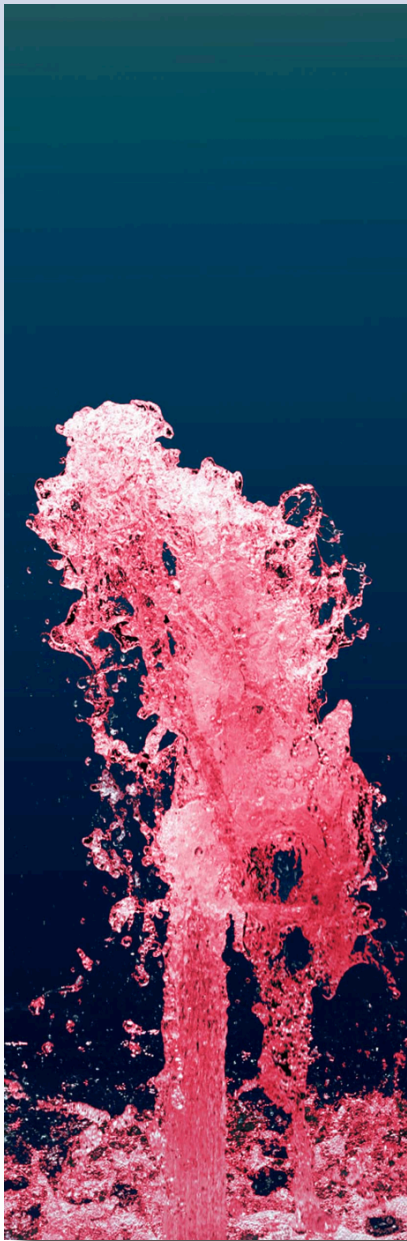


OCEANTOOLS

Innovative Products & Solutions for use in some of the world's harshest environments

OceanDYE Subsea Leak Tracing Dye



OceanDYE is a fluorescent leak tracing dye concentrate designed for the tracing of leaks in a variety of subsea environments including subsea control systems, risers and pipelines.

OceanDYE was developed by Niche Products, a widely acknowledged expert in environmental dye technology for the offshore industry, to work in conjunction with the OceanTools OceanSENSE advanced dye detection system.

OceanDYE is typically dosed at a ratio of 100-200ppm depending on the application and is compatible with a wide range of liquids including seawater, fresh water and water based subsea control fluids.

OceanDYE is pink within the visible spectrum with excitation and detection wavelengths optimised for detection by OceanSENSE. It should be noted that OceanSENSE is around 50 times as sensitive as the human eye.

Prior to use, confirmation of compatibility of OceanDYE with the dosage medium should be established via the OceanTools and Niche Products technical teams. During use, OceanDYE should be thoroughly dispersed within the chosen medium.

No other dye / detector combination works as well together as OceanDYE and OceanSENSE.



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Represented by:

1. Identification Of The Substance / Preparation And The Company

Product Name

OceanDYE

Company

Niche Products Ltd
Walter Leigh Way
Moss Industrial Estate
Leigh, Lancashire
WN7 3PT, UK

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Telephone +44 (0)8452 967751
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2. Hazards Identification

Main hazards

Non Hazardous.

3. Composition / Information On Ingredients

Hazardous ingredients

	Conc.	CAS	EINECS	Symbols/Risk phrases
Mono ethylene glycol	15 - 25%	107-21-1	203-473-3	Xn; R22

4. First Aid Measures

Skin contact

May cause irritation to skin. Wash off immediately with plenty of soap and water. Remove contaminated clothing. Seek medical attention if irritation or symptoms persist.

Eye contact

May cause irritation to eyes. Rinse immediately with plenty of water for 15 minutes holding the eyelids open. Seek medical attention if irritation or symptoms persist.

Inhalation

May cause irritation to mucous membranes. Move the exposed person to fresh air

Ingestion

May cause irritation to mucous membranes. DO NOT INDUCE VOMITING. If swallowed, seek medical advice immediately and show this container or label.
Ingestion is irritating to the respiratory tract and may cause damage to the central nervous system

5. Fire Fighting Measures

Extinguishing media

Use extinguishing media appropriate to the surrounding fire conditions.

Fire hazards

Burning produces irritating, toxic and obnoxious fumes.

Protective equipment

Wear suitable respiratory equipment when necessary.

6. Accidental Release Measures

Personal precautions

Ensure adequate ventilation of the working area. Wear suitable protective equipment.

Environmental precautions

Do not allow product to enter drains. Prevent further spillage if safe.

Clean up methods

Pick up without creating dust. Transfer to suitable, labelled containers for disposal. Clean spillage area thoroughly with plenty of water.

7. Handling And Storage

Handling

Avoid contact with eyes and skin. Ensure adequate ventilation of the working area. Adopt best Manual Handling considerations when handling, carrying and dispensing.

Storage

Keep in a cool, dry, well ventilated area. Keep containers tightly closed. Store in correctly labelled containers.

8. Exposure Controls / Personal Protection

Exposure limits

Mono ethylene glycol (Ethane-1,2-diol vapour)	WEL 8-hr limit ppm: 20 WEL 15 min limit ppm: 40	WEL 8-hr limit mg/m ³ : 52 WEL 15 min limit mg/m ³ : 104
Mono ethylene glycol (Ethane-1, 2-diol particulate)	WEL 8-hr limit ppm: - WEL 15 min limit ppm: -	WEL 8-hr limit mg/m ³ : 10 WEL 15 min limit mg/m ³ : -
Acetic Acid	WEL 8-hr limit ppm: 10 WEL 15 min limit ppm: 15	WEL 8-hr limit mg/m ³ : 25 WEL 15 min limit mg/m ³ : 37

Engineering measures

Ensure adequate ventilation of the working area.

Respiratory protection

Wear suitable respiratory equipment.

Hand protection

Chemical resistant gloves (PVC)

Eye protection

Approved safety goggles.

Protective equipment

Wear chemical protective clothing.

9. Physical And Chemical Properties

Description	Liquid.
Colour	Dark Red.
Odour	Pungent.
pH	3 - 4 @ 20°C
Relative density	1.04 @ 20°C

Water solubility	Soluble in water.
Flash point (open cup)	>100°C

10. Stability And Reactivity

Stability

Stable under normal conditions.

Materials to avoid

Oxidising agents.

Hazardous decomposition products

Carbon oxides. Nitrogen oxides.

11. Toxicological Information

Acute toxicity

Ethylene Glycol

Lethal dose in humans is approximately 1.6 g/kg

Oral Rat LD50 = 4700 mg/kg.

Repeated or prolonged exposure

Prolonged or repeated exposure may cause irritation to skin and mucous membranes.

12. Ecological Information

Degradability

Readily biodegradable.

Bioaccumulation

Does not bioaccumulate

Further information

All components have been tested to OSPARCOM standards. Product contains no substitutable components.

13. Disposal Considerations

General information

Dispose of in compliance with all local and national regulations.

14. Transport Information

Further information

The product is not classified as dangerous for carriage.

15. Regulatory Information

Labelling

This product is not classified as dangerous for carriage.

16. Other Information

Text of risk phrases in Section 3

R22 – Harmful if swallowed.

Further information

The information supplied in this Safety Data Sheet is designed only as guidance for the safe use, storage and handling of the product. This information is correct to the best of our knowledge and belief at the date of publication however no guarantee is made to its accuracy. This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any other process.



PRODUCT SUMMARY

Pelagic EnviroDYE is an environmentally superior tracer dye specifically designed for discharge in super environmentally sensitive areas.

Pelagic EnviroDYE can be used for leak tracing in a variety of subsea applications including subsea control systems, risers and pipelines.

Pelagic EnviroDYE is available as a package with the OceanSENSE high intensity LED leak detection unit and is not sold separately as it has very specific detection frequencies and attributes that have been specifically optimised for use with the OceanSENSE units.

Pelagic EnviroDYE is the most environmentally acceptable dye available to the offshore industry and is based on naturally occurring ingredients.

Prior to use confirmation of compatibility of EnviroDYE with the dosage medium should be established via our technical team.

For further information do not hesitate to contact us.



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tech@subseafluids.com
www.subseafluids.com

1. Identification Of The Substance / Preparation And The Company / Undertaking.

1.1 Product Identifier.

Pelagic EnviroDYE

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

Used for subsea leak tracing in offshore gas and oil industry.

1.3 Details of the supplier of the safety data sheet.

Niche Products Ltd
 Walter Leigh Way
 Moss Industrial Estate
 Leigh, Lancashire
 WN7 3PT, UK
www.subseafluids.com
 Telephone +44 (0)8452 967751
 Fax +44 (0)8452 967752
 Email info@subseafluids.com

1.4 Emergency telephone number.

Telephone +44 (0)8452 967751 (office hours)
 NHS Direct +44 (0)845 46 47 (24 hours)

2. Hazards Identification

2.1 Classification of substance or mixture.

Regulation EC No 1272/2008

This product has been classified in line with EU Directive 1999/45/EC.

Classification according to EU Directive 67/548/EEC or 1999/45/EC as modified.

This product is classed as non-hazardous.

Symbol(s)

Not Classified

2.2 Label elements.

Not classified, no labelling required.

2.3 Other Hazards

None.

3. Composition / Information On Ingredients

3.1 Mixture.

Description of Mixture.

Leak tracer dye in aqueous antifreeze.

Hazardous Components.

Component	CAS No	EC No	Index No	Concentration	Classification according to 67/548/EEC as corrected.
Tracer Dye	Confidential	Confidential	Confidential	<15%	Irritant; Xi; R36/37/38.
2-Aminoethanol	141-43-5	205-483-3	603-030-00-8	0.1 – 4%	Corrosive; C; R34. Harmful; Xn; R20/21/22

Additional Information – For wording of risk phrases, see section 16.

4. First Aid Measures

4.1 Description of first aid measures.

General Advice.

Seek medical advice if irritation or symptoms persist and show this MSDS.

Skin contact

May cause irritation to skin. Wash off immediately with plenty of soap and water. Remove contaminated clothing. Seek medical attention if irritation or symptoms persist.

Eye contact

May cause irritation to eyes. Rinse immediately with plenty of water for 15 minutes holding the eyelids open. Seek medical attention if irritation or symptoms persist.

Inhalation

May cause irritation to mucous membranes. Move the exposed person to fresh air.

Ingestion

DO NOT INDUCE VOMITING. Never give anything to an unconscious person. If swallowed, seek medical advice immediately and show this container or label.

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

4.3 Indication of any immediate medical attention and special treatment needed.

If swallowed, seek medical advice immediately and show this container or label.

5. Fire Fighting Measures

5.1 Extinguishing media

Use extinguishing media appropriate to the surrounding fire conditions. Do not use solid water stream as it may scatter and spread fire.

5.2 Special Hazards arising from the substance or mixture.

Burning produces irritating, toxic and obnoxious fumes including carbon and nitrogen oxides.

5.3 Advice for Fire-fighters.

Wear suitable respiratory equipment when necessary. Use water spray to cool unopened containers.

6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures.

Ensure adequate ventilation of the working area. Wear suitable protective equipment. Remove all sources of ignition.

6.2 Environmental precautions

Do not allow product to enter drains. Prevent further spillage if safe.

6.3 Methods and material for containment and cleaning up.

Absorb with inert, absorbent material. Sweep up. Transfer to suitable, labelled containers for disposal. Clean spillage area thoroughly with plenty of water.

6.4 Reference to other sections.

For personal protective equipment refer to section 8.

For disposal refer to section 13.

7. Handling And Storage

7.1 Precautions for safe handling

Advice for safe handling.

Avoid contact with eyes and skin. Ensure adequate ventilation of the working area. For personal protection see section 8. When using, do not eat, drink or smoke. Do not breathe vapours or spray mist. Adopt best Manual Handling considerations when handling, carrying and dispensing

Prevention of fire / explosion.

Keep away from sources of ignition; take precautionary measures against static discharge.

Hygiene Measures.

Wash hands after use; remove contaminated clothing and protective equipment before entering eating areas.

7.2 Conditions for storage including any compatibilities

Keep in a cool, dry, well ventilated area. Keep containers tightly closed. Store in correctly labelled containers. Where possible, design the installations in order to avoid accidental emissions of product (due to seal breakage, for example) onto hot casings or electrical contacts. Protect from moisture. Protect from frost, heat and sunlight.

7.3 Specific end uses.

No data available.

8. Exposure Controls / Personal Protection

8.1 Control Parameters

Components with workplace control parameters.

Component	CAS No	Value	Control Parameters	Basis
2-aminoethanol	141-43-5	STEL	3 ppm 7.6 mg/m ³	UK EH40 WEL Workplace exposure limits
	Remarks	Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to system toxicity.		
		TWA	1 ppm 2.5 mg/m ³	UK EH40 WEL Workplace exposure limits
	Remarks	Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to system toxicity.		
		TWA	1 ppm 2.5 mg/m ³	Europe. Indicative occupational exposure limit values.
	Remarks	Identifies the possibility of significant uptake through the skin Indicative		
		STEL	3 ppm 7.6 mg/m ³	Europe. Indicative occupational exposure limit values.
	Remarks	Identifies the possibility of significant uptake through the skin Indicative		

Pelagic EnviroDYE

**8.2 Exposure Controls.****Appropriate engineering controls.**

Ensure adequate ventilation of the working area. Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal Protective Equipment.**Respiratory protection**

Not normally required.

Hand protection

Chemical resistant gloves (PVC)

Eye protection

In case of potential splashing, wear approved safety goggles.

Protective equipment

Wear chemical protective clothing.

9. Physical And Chemical Properties**9.1 Information on basic physical and chemical properties.**

(a) Appearance	Form Liquid.
(b) Odour	Bland
(c) Odour Threshold	No data available.
(d) pH	9.8
(e) Melting / freezing point	< -15°C
(f) Initial boiling point and boiling range	>100 °C
(g) Flash Point	>100 °C
(h) Evaporation rate	Below 110 kPa (1.1 Bar)
(i) Flammability (solid, gas)	No data available
(j) Upper / Lower Explosion Limit	No data available
(k) Vapour Pressure	No data available
(l) Vapour density	No data available
(m) Relative density	1.04 gcm ⁻³ @ 20 °C
(n) Water solubility	Soluble.
(o) Partition coefficient n-octanol / water.	No data available.
(p) Auto ignition temperature.	No data available.
(q) Decomposition temperature	No data available.
(r) Viscosity	3.6 cst @ 20 °C
(s) Explosive properties	No data available.
(t) Oxidising properties.	No data available.

9.2 Other information.

No data available.

10. Stability And Reactivity

10.1 Reactivity

No data available.

10.2 Chemical Stability

Stable under normal operating conditions.

10.3 Possibility of hazardous reactions.

None expected under normal operating conditions.

10.4 Conditions to avoid.

Sparks, ignition sources, flames.

10.5 Incompatible materials

No data available.

10.6 Hazardous decomposition products.

Stable under normal conditions. Carbon and nitrogen oxides

11. Toxicological Information

11.1 Information on toxicological effects.

No data on the toxicity of the mixture itself is available.

12. Ecological Information

12.1 Toxicity

All components have low toxicity to algae, crustacean and fish.

12.2 Persistence and degradability

All components are readily biodegradable.

12.3 Bioaccumulative potential

All components are not considered bioaccumulative.

12.4 Mobility in soil.

No data available.

12.5 Results of PBT and vPvB assessment

All components are not considered to be PBT or vPvB.

12.6 Other adverse effects.

No Information available.

13. Disposal Considerations

General information

13.1 Waste Treatment methods.

Waste:

Recycle or dispose of waste in compliance with current legislation, preferably using a licensed disposal company.

Soiled packaging:

Empty containers completely. Retain label(s) on container. Dispose of through a licensed disposal company in accordance with the European Directives on waste and hazardous waste. Where possible recycling is preferred to disposal or incineration.

14. Transport Information

14.1 UN Number	Not regulated.
14.2 UN Proper Shipping Name	Not regulated.
14.3 Transport hazard class(es)	Not regulated.
14.4 Packing group	Not regulated.
14.5 Environmental hazards	Not hazardous.
14.6 Special Precautions for user.	None.
14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.	Not determined.

15. Regulatory Information

15.1 Safety Health and environmental regulations / legislation specific for the substance / mixture.

This safety datasheet complies with the requirements of Regulation EC NO 1907/2006 and its amendments in regulation (EU) No 453/2010.

15.2 Chemical Safety assessment.

No chemical safety assessment has been carried out for this product by the supplier.

16. Other Information

Text of R codes listed in section 3.

C	Corrosive
R34	Causes burns
Xn	Harmful
R20/21/22	Harmful by inhalation, in contact with skin and if swallowed.
Xi	Irritant
R36/37/38	Irritating to eyes, respiratory system and skin.

Changes from previous version

All sections have been updated to ensure compliance with Regulation EC 1907/2006 and its amendments in regulation (EU) No 453/2010.

Revision Date 23rd January 2012.

Author D. Gleeson

Further information

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