Owi EmeralDye Safe DNA Stain

Safety data sheet Sheet according to Annex II of the Regulation (EC) No. 1907/2006 (REACH), amended by the Regulation (EU) 2015/830

References: 258512 - 258512E

For RESEARCH USE ONLY

The mixture is not classified as hazardous. The available Safety Data Sheet is based on the information requirement according to REACH Article 32, and therefore voluntarily created according to the Annex II of the Regulation (EC) No. 1907/2006 (REACH) in the version of the regulation (EU) 2015/830.

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Name:	Owi Emeraldye Safe DNA Stain
Cat. No.:	MG03, MG04
EC Substance name:	not available
CAS Number:	not available
EC Number:	not available
REACH Reference Number:	not available

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

Identified uses: Mixture of chemicals for industrial and public laboratory analysis SU3: industrial use, also refer to abbreviation in section 16..
Uses advised against: Unknown.

SECTION 2: HAZRADS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to the Regulation (EC) No. 1272/2008 (CLP);
Not classified as hazardous.

2.2 Labelling elements

Labelling according to the Regulation (EC) No. 1272/2008 (CLP);
Not labelled as hazardous
Substance on the label: Pictograms:
Signal word: H statements: P statements:
obsolete obsolete obsolete obsolete
P261 Avoid breathing mist / vapours / spray. P280 Wear protective gloves / eye protection.

2.3 Other hazards:

On PBT or vPvB properties of the product or its ingredients according to the criteria of REACH Annex XIII no information is available.
Physical-chemical hazardous effects are unknown. On complains and symptoms as well as to harmful effects no data are available.

OZYME SAS - 78210 SAINT-CYR-L'ECOLE - FRANCE
Tel. : +33 1 34 60 24 24 - www.ozyme.fr/info
Customer service - Order : commande@ozyme.fr
Technical support : tech@ozyme.fr

Dominique DUTSCHER SAS - 67170 BERNOLSHEIM - FRANCE
Tel. : +33 3 88 59 33 90 – www.dutscher.com
Customer service - Order : info@dutscher.com
Technical support : demandes_techniques@dutscher.com

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substances: not relevant

3.2 Mixtures:

Chemical characterization:

Aqueous solution of inorganic and organic ingredients.

Chemical name	REACH Ref. No.	EC No.	Index No.	CAS No.	Content	ClaSSifiCat imn
Active ingredients of Emeraldye*n Advance DNA Stain*	not available	not available	not available	not available	<1%	not classified as hazardous
Water	not available	231-791-2	not available	7732-18-5	>98%	not classified as hazardous

" No obligation for declaration according to the chemical legal regulations.

The wordings of the H statements are listed in section 16.

SECTION 4 : FIRST AID MEASURES

4.1 Description of the first aid measures:



4.1.1 General information:

If complains persist consult a physician. Remove contaminated cloths and shoes, thoroughly clean before re-use. If complains and symptoms occur seek medical advice.

4.1.2 Inhalation:

Remove the affected person to fresh air, bring to rest position, keep warm. If complains and symptoms occur seek medical advice.

4.1.3 Skin contact:

At contact with the skin immediately wash with much water. If complains and symptoms occur seek medical advice.



4.1.4 Eyes contact:

Thoroughly wash the eyes on spread lids with flowing fresh water for 15 minutes, previously remove contact lenses if possible. Provide ophthalmological treatment.

4.1.5 Ingestion:

Don't induce vomiting. Let rinse the mouth, let spit of the liquid and let drink copious amounts of water. If complains and symptoms occur seek medical advice.

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

Not relevant

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

Decontamination, symptomatic treatment. No specific antidote known.

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SECTION 5 : FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media:



The product is not combustible, adapt the measures to the environment: water spray, carbon dioxide, extinguishing foam and dry extinguishing agent.

Not suitable extinguishing **media** for safety reasons:

Water jet



5.2 Special hazards arising from the substance or mixture:

In the fire case toxic gases — carbon monoxide, carbon dioxide, sulfur oxides, organic decomposition products — may be released.



5.3 Advice for fire fighters:

Use a self-contained breathing apparatus (SCBA) at poor ventilation and in closed rooms. Wear protection cloth. Adapt the extinguishing media and fire-fighting measures to the environment.

SECTION 6 : ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:

Mind the protection measures (section 8). Avoid the contact with skin, eyes and cloth, wear suitable protection equipment. Ensure adequate ventilation. Avoid aerosol formation.

6.2 Environmental precautions:

Do not allow to enter sewers / surface waters / ground water. Remove fire residues and contaminated aqueous wastes in suitable containers and dispose of them in a controlled manner.

6.3 Methods and material for containment and cleaning up:

Take up with liquid-binding agents, e.g. universal binder, treat material as described in section 13„Disposal considerations“. Clean contaminated surfaces with water.

6.4 Reference to other sections:

Refer to section 8 — personal protection and section 13 — information on disposal.

SECTION 7 : HANDLING AND STORAGE

7.1 Precautions for safe handling:

7.1.1 Information on safe use:

Avoid inhalation of aerosol, contact with eyes, skin and cloth, as well as longer or repeated exposure. Provide sufficient ventilation of the working room (local exhaust ventilation if needful). If workplace exposure limits are exceeded, wear appropriate respiratory protection.

7.1.2 Information on fire and explosion protection:

No special measures needful.

7.1.3 Handling rules:

On workplaces only keep available amounts necessary for work progress. Don't leave receptacles stand open. Avoid spilling, preferable handle with non-breakable receptacles or use suitable protection containers on transportation of breakable receptacles.

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7.2 Conditions for safe storage considering incompatibilities:

7.2.1 Technical measures and storage conditions:

Keep opened container tightly closed again and stored upright to prevent leakage. Always keep in containers of the same material as the original. Storage temperature 4 ° C recommended. Keep away from sunlight.

7.2.2 Packing materials:

Packing materials must be tested for durability before use.

7.2.3 Requirements for storage rooms and containers:

Storage in passages, passages, stairs, public areas, roofs, roofs and workrooms is not permitted. Do not use food containers because of the risk of confusion. Label containers clearly and permanently. If possible, keep in the original container, keep container tightly closed.

7.2.4 Information on cumulative storage: Storage class: non-combustible liquids.

Nothing but substances of similar properties should be cumulatively stored. Cumulative storage with substances as follows is prohibited:

- Pharmaceuticals, food and feed, including additives.
- Infectious, radioactive and explosive substances.

Organic peroxides and very reactive oxidizing substances

7.2.5 Further information to the storage **conditions: none**

7.3 Specific end uses: none

SECTION 8 : EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters:

8.1.1 Occupational exposure limits: not available

8.1.2 Biological exposure limits: not available

8.1.3 DNEL and PNEC values: not available

Reference: For the assessment of the own risk assessment measures (RMM) with the charge-free tool **ECETOC** TRAM or with another method possibly a scaling for the proof of the safe use should be performed. Existing DNEL/PNEC values also may be extrapolated based at the concentrations from section 3.

If an exposure scenario should be completely applicable, this shall be documented.

Remark: With data given by an extended SDB, this is to be done within one year after receipt of the eSDB.

8.2 Exposure controls:

8.2.1 Personal protection:

Respiratory protection:



No respiratory protection is necessary when working with the small quantities intended for the product. In case of exceptional operating conditions, working with larger quantities and with the risk of aerosol formation use suitable respiratory protection, e.g. half-masks according to EN 140 with filters according to EN 143-P1. Observe wearing time limit.

Hand protection:



At the risk of skin contact with the product, ensure adequate protection by wearing suitable protective gloves, e.g. according to EN 374. Before use, test protective gloves for suitability under the specific working conditions (e.g., mechanical resistance, product compatibility and antistatic properties). Observe the instruction and information on the use, storage, maintenance and replacement of protective gloves. Damaged and worn protective gloves should be replaced immediately.

According to the Safety Test Report, gloves made of latex (ECO Latex PF250) and nitrile (Orange Nitril 260) are not penetrated under the conditions of the Emeraldye glove penetration test.

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Eye protection:

Eye protection goggles with side protection (EN 166).

Skin protection



Use clothing usal in the chemical industry. Skin protection agents are not as effective as protective gloves, so they should be preferred as much as possible. If no protective gloves can be worn, apply water-insoluble skin protection preparations to the clean skin before starting work and after every break. Before breaks and at the end of work, skin cleansing with soap and water is required. After cleansing, use a greasy skin care product.



Body protection:

Special body protection generally not required, normal work clothes adequate.



General protection and hygiene measure:

Do not eat, drink or smoke during working hours. Keep away from food and drink. Avoid contact with eyes and skin. Remove contaminated and soaked clothing immediately. Wash hands before breaks and after work.

8.2.2 Limitation of the environmental exposure: Avoid leaks and spills.

8.2.3 Limitation of the consumer's exposure:

Avoid inhalation of vapors, mists or gases, remove sources of ignition.

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SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

9.1.1 Appearance:

Physical status: liquid
Color: orange-red to brown
Odour: odourless

9.1.2 Fundamental data relevant for security:

Parameter		Wert	Unit	Method	Remarks
pH value at 20°C		n.a.			
Melting point/range		n.a.	°C	----	
Boiling point/range		n.a.	°C	----	
Flash point		n.a.	°C	----	
Self-ignition temperature		n.b.	°C		
Vapor pressure at 20 C°		n.d.	hPa		
Density		n.d.	g/cm°		
Bulk density		n.d.	g/m^3	----	
Water solubility at 20 °C		- -	mg/L	----	unlimited
Granulometry		n.a.	pm	---	
Partitition coeffizient: n-octanol/water log		n.d.			
Dynamic viskosity		n.b.	mPa*s		
Explosion limit	lower:	n.a.	Vol.%		
	upper:	n.a.	Vol%		

9.2 Other information : not revelant

SECTION 10 : STABILITY AND REACTIVITY

10.1 Reactivity:

Not reactive under the intended use and storage conditions.

10.2 Chemical stability:

Chemically stable under the intended use and storage conditions.

10.3 Possibility of hazardous reactions:

Unknown under the intended use and storage conditions.

10.4 Conditions to avoid

High temperature

10.5 Incompatible materials:

Strong acids and bases, oxidizing and reducing agents

10.6 Hazardous decomposition products

At high temperature carbon monoxide, carbon dioxide, sulfur oxides, organic decomposition products

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Technical support : tech@ozyme.fr

Dominique DUTSCHER SAS - 67170 BERNOLSHEIM - FRANCE
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SECTION 11 : TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:

11.1.1 Toxicocinetics, metabolism and distribution:

No data available.

11.1.2 Acute toxicity:

11.1.3 Corrosive and irritation effects:

No data available.

11.1.4 Sensitizing effects:

No data available.

11.1.5 Subacute and chronic toxicity:

No data available.

11.1.6 Carcinogenicity, mutagenicity and reproduction toxicity

On the carcinogenicity and reproduction toxicity of the product and its ingredients no data are available.

Parameter	Value	Cell culture/ **Species**	**Method**	**Remarks**
In-vitro bacterial back-mutation test	non mutagen	Salmonella typhimurium TA97/98/100/102	Ames test	0,5-5 mg/plate; with / without S9 activation
NOEL in-vivo micro nucleus test	5.000 mg/kg (negative)	Kunming mouse ♂/♀	Mouse bone marrow micro- nucleus test	1.000-5.000 mg/kg
In-vitro mammalian chromosomal aberration test	negative	Chinese hamster ovaries cells	*In vitro* mammalian cell chromosomal aberration detection system	31,2-5.000 pg/ml; with / without S9 activation

Parameter	Result	Species	Method	Remarks
LDso oral	>10.000 mg/kg	Kunming mouses/g	unknown	1.000-10.000 mg/kg

11.1.7 Experience from practise:

No data available

11.1.8 General remarks:

When handled appropriate and used as intended, the product does not cause harmful effects according to our experience and current information

SECTION 12 : ECOLOGICAL INFORMATION

12.1 Toxicity: No data available.

12.2 Persistence and degradability:

Biological degradation: No data available.

Abiotic degradation: No data available.

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12.3 Bio-accumulation potential: No data available.

12.4 Mobility in soil:
Absorption/Desorption: No data available.

12.5 Volatibility: No data available.

12.6 Results of the PBT and vPvB assessment:
This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.7 Other adverse effects:
Ozone depletion potential and global green-house effects are not known.

12.8 General remarks:
When handled appropriate and used as intended, the product does not cause adverse effects according to our experience and current information, but should not be discharged into large quantities into an outflow or water body.

SECTION 13 : DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods:

13.1.1 Product:

The allocation of a waste code number according to the European waste catalog should be done in consultation with the regional waste disposal company. Recommendation:

AVV waste code number: 16 05 09 Other waste containing organic chemicals, e.g. lab chemicals not otherwise specified

13.1.2 Packaging:

Residues in packages should be removed, preferably by rinsing with water, and after complete emptying in accordance with the regulations for waste disposal. Packaging which is not completely emptied must be disposed of in the form as determined by the regional waste disposal company. Recommendation:

AVV waste code number: 15 01 06 mixed packaging

SECTION 14 : TRANSPORT INFORMATION

14.1 UN number: not relevant
14.2 UN proper shipping name: not relevant
14.3 Transport hazard class(es): not relevant
14.4 Packaging group: not relevant
14.5 Environmental hazards: not relevant
14.6 Special precautions for user: not relevant
14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: not relevant

Remarks: This product is not classified as dangerous good according to ADR / RID / ADN / IDMG-Code and ICAO / IATA.

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1 EU Regulations

Classification and labelling acc. to Regulation (EC) No. 1272/2008 (CLP):
The product is not subject to classification and labelling. Refer to section 2.
Authorizations and/or **use restrictions:** not applicable

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Tel. : +33 1 34 60 24 24 - www.ozyme.fr/info
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Dominique DUTSCHER SAS - 67170 BERNOLSHEIM - FRANCE
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Information on Directive 1999/13/EG on VOC emission limitations: 0% VOC in the product

15.1.2 National regulations (United Kingdom):

Classification and labelling:
The product is not due to labelling according to the UK regulations. Other U.K. regulations and guidance:
Health and Safety at Work Act 1974.
The Management of Health and Safety at Work regulations 1992.
L5 Control of substances hazardous to Health. The Control of Substances Hazardous to Health Regulations 2002. Approved codes of practice and guidance.

Guidance Note EH40 — Occupational Exposure Limits.
BS EN ISO 10882-1:2001 - health and safety in welding and allied processes - sampling of air-borne particles and gases in operator's breathing zone — part 1: sampling of airborne particles.

15.2 Chemical safety assessment:

Chemical safety assessments (CSA) according to the Article 14 Paragraph 1 of the Regulation (EC) No 1907/2006 (REACH) are not available.

SECTION 16 : OTHER INFORMATION

16.1 Wordings of the H-statements from the sections 2 and 3:

Not available.

16.2 Training advice:

Instruction on hazardous substances is mandatory.

16.3 Abbreviation /Explanation:

SU3: Descriptor for industrial users from ECHA Guide Chemical Safety Information Requirements R.12
https://echa.europa.eu/documents/10162/13632/information_requirements_r12_de.pdf

PNEC: Predicted No Effect Concentration

DNEL: Derived No Effect Level

ECETOC-TRAM: Tool free of charge for proving the safe use of registered substances.
http://www.ecetoc.org/tra

16.4 Recommended use restriction

Not recommended for consumer's use.

16.5 Further information and contact points for technical information:

Safety data sheet creator:

Fit4REACH likedeelers GmbH
Insterburger Weg 9
D-47495 Rheinberg
Hallbergstrasse 10
D-40239 Düsseldorf

Contact person:
Dr. Wolfgang Pahlmann
Graduated Chemist/Consultant
Phone: +49 (0) 170 8206788
Fax: +49 (0) 211 66964872
Mail: w.pahlmann@fit4reach.eu
Internet: http //:www.fit4reach.eu

16.6 Data sources of the Safety Data Sheet creation:

Information on registered substances, European Chemicals Agency (ECHA); Internet: http://echa.europa.eu/de.
Information System on Hazardous Substances of the German Social Accident Insurance (GESTIS), Internet: http://www.hvbg.de/d/bia/gestis/stoffdb/index.html.

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Hazardous Substances Data Bank (HSDB) — U.S. National Library of Medicine, Internet: http://toxnet.nlm.nih.gov
Hommel interaktive 4.0 — Handbook of Dangerous Goods, Internet: http://www.springer.com/dal/home/chemistry
CRC Handbook of Chemistry and Physics, 88th Edition, 2007-2008, Internet: http://www.hbcpnetbase.com

Safety Data Sheets of the suppliers.

16.7 Amended information and reason for amendment:

Prior version:	Version number	1.1	Date:	31-05-2017
Actual version:	Version number	1.2	Date:	18-08-2017
Kind of amendent:	Complete revision according to the amended Annex II.			
Reason for amendment:	Adaption to the Annex II of the Regulation (EC) No. 1907/2006 (REACH) in the version of the Regulation (EU) 2015/830, and to the Annex I of the Regulation (EC) No. 1272/2008 (CLP).			

16.8 Remarks:

This information is only intended to describe the safety requirements of the product and is based on the present state of our knowledge. They do not constitute a guarantee for the characteristics of the product described in the sense of the statutory warranty regulations. Please refer to the respective product data sheets for the delivery properties. If the product mentioned in this Material Safety Data Sheet is blended, mixed or processed with other materials, the data in this Material Safety Data Sheet may not be transferred to the new material, unless otherwise specified.

Version : OZY755110-303708

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