SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product Identifier Optik Foam Bout Marker

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

Relevant uses: Agricultural Adjuvant. For professional use only.

Uses advised against: All uses not specified in this section or in section 7.3

1.3. Details of the supplier of the safety data sheet

Company: Indigrow Ltd, The Old Bakery, Hyde End Lane, Brimpton, Berkshire, RG7 4RH. UK.

Phone: +44 (0) 1189 710 995

Email: growth@indigrow.com

1.4. Emergency telephone number +44 (0) 7725 962 366

SECTION 2: Hazards Identification

2.1. Classification of the substance or mixture

GB CLP Regulation: Classification of this product has been carried out in accordance with GB CLP Regulation.
Acute Tox. 4: Acute toxicity if swallowed, Category 4, H302
Aquatic Chronic 3: Hazardous to the aquatic environment, long-term hazard, Category 3, H412
Eye Dam. 1: Serious eye damage, Category 1, H318
Skin Irrit. 2: Skin irritation, Category 2, H315

2.2. Label elements

GB CLP Regulation:
Danger

Hazard indications: Acute Tox. 4: H302 - Harmful if swallowed.
Skin Irrit. 2: H315 - Causes skin irritation.
Eye Dam. 1: H318 - Causes serious eye damage.
Aquatic Chronic 3: H412 - Harmful to aquatic life with long lasting effects.

Cautionary advice: P264: Wash thoroughly after use.
P280: Wear protective gloves/protective clothing/eye protection.
P302+P352: IF ON SKIN: Wash with plenty of soap and 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/doctor.
P501: Dispose of the contents and/or its container in line with regulations on dangerous waste or packaging and waste packaging respectively.

Supplementary information: Non-applicable

Substances that contribute to the classification:
Sulfuric acid, mono-C12-14-alkyl esters, sodium salts; Amines, C12-18-alkyldimethyl, N-oxides; tetrasodium ethylene diamine tetraacetate

2.3. Other hazards

Non-applicable

SECTION 3: Composition/Information on Ingredients

3.1. Substances
Non-applicable

3.2. Mixtures
Chemical description: Mixture of substances
Components: In accordance with Annex II of The REACH etc. (Amendment etc.) (EU Exit) Regulations 2020, the product contains:

Identification	Chemical Name	Classification	Concentration
CAS: 85586-07-8	Sulfuric acid, mono-C12-14-alkyl esters, sodium salts	Acute Tox. 4: H302; Aquatic Chronic 3: H412; Eye Dam. 1: H318; Skin Irrit. 2: H315 - Danger	20-<30%
CAS: 111-76-2	2-butoxyethanol	Acute Tox. 4: H302+H332; Eye Irrit. 2: H319; Skin Irrit. 2: H315 - Warning	10-<20%
CAS: 68955-55-5	Amines, C12-18-alkyldimethyl, N-oxides	Acute Tox. 4: H302; Aquatic Acute 1: H400; Aquatic Chronic 2: H411; Eye Dam. 1: H318; Skin Irrit. 2: H315 - Danger	5-<10%
CAS: 64-02-8	Tetrasodium ethylene diamine tetraacetate	Acute Tox. 4: H302+H332; Eye Dam. 1: H318; STOT RE 2: H373 - Danger	5-<10%
CAS: 61788-93-0	Amines, coco alkyldimethyl	Acute Tox. 4: H302; Aquatic Acute 1: H400; Skin Corr. 1B: H314 - Danger	<1%

To obtain more information on the risk of the substances consult sections 8, 11, 12 and 16.

Other information:

Identification	Specific concentration limit
Sulfuric acid, mono-C12-14-alkyl esters, sodium salts (CAS: 85586-07-8)	% (w/w) >=20: Eye Dam. 1 - H318 10<= % (w/w) <20: Eye Irrit. 2 - H319

SECTION 4: First-Aid Measures

4.1. Description of first aid measures
The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By inhalation: This product is not classified as hazardous through inhalation. However, in case of intoxication symptoms it is recommended to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

By skin contact: Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact: Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, in which case this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration: Request medical assistance immediately, showing the SDS of this product. Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. In the case of loss of consciousness do not administer anything orally unless supervised by a doctor. Rinse out the mouth and throat, as they may have been affected during ingestion. Keep the person affected at rest.

4.2. Most important symptoms and effects, both acute and delayed
Acute and delayed effects are indicated in sections 2 and 11.

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

SECTION 5: Fire-Fighting Measures

5.1. Extinguishing media
Suitable extinguishing media: Product is non-flammable under normal conditions of storage, handling and use. In the case of combustion as a result of improper handling, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems.
Unsuitable extinguishing media: Non-applicable

5.2. Special hazards arising from the substance or mixture
As a result of combustion or thermal decomposition reactive subproducts are created that can become highly toxic and, consequently, can present a serious health risk.

5.3. Advice for fire-fighters
Depending on the magnitude of the fire it may be necessary to use full protective clothing and self-contained breathing apparatus (SCBA). Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...).

Additional provisions:
Act in accordance with the Internal Emergency Plan and the Information Sheets on actions to take after an accident or other emergencies. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflamation, explosion or BLEVE as a result of high temperatures. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: Accidental Release Measures

6.1. Personal precautions, protective equipment and emergency procedures
For non-emergency personnel: Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.
For emergency responders: See section 8.

6.2. Environmental precautions
Avoid at all cost any type of spillage into an aqueous medium. Contain the product absorbed appropriately in hermetically sealed containers. Notify the relevant authority in case of exposure to the general public or the environment.

6.3. Methods and material for containment and cleaning up
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4. Reference to other sections
See sections 8 and 13.

SECTION 7: Handling and Storage

7.1. Precautions for safe handling

Precautions for safe manipulation: Comply with the current legislation concerning the prevention of industrial risks. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

Technical recommendations for the prevention of fires and explosions:
Product is non-flammable under normal conditions of storage, handling and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

Technical recommendations to prevent ergonomic and toxicological risks:
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

Technical recommendations to prevent environmental risks:
Due to the danger of this product for the environment it is recommended to use it within an area containing contamination control barriers in case of spillage, as well as having absorbent material in close proximity.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures for storage: Minimum Temp.: 0ºC
Maximun Temp.: 40ºC
Maximum time: 36 Months

General conditions for storage: Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5.

7.3. Specific end use(s)

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: Exposure Controls/Personal Protection

8.1. Control parameters

Substances whose occupational exposure limits have to be monitored in the workplace:

EH40/2005 Workplace exposure limits, fourth edition, published 2020:

Identification	Occupational exposure limits		
2-butoxyethanol CAS: 111-76-2	WEL (8h)	25 ppm	123 mg/m³
	WEL (15 min)	50 ppm	246 mg/m³
Propane-1,2-diol CAS: 57-55-6	WEL (8h)	150 ppm	474 mg/m³
	WEL (15 min)	-	-
Acetic acid CAS: 64-19-7	WEL (8h)	10 ppm	25 mg/m³
	WEL (15 min)	20 ppm	50 mg/m³

NULL:
BIOLOGICAL MONITORING GUIDANCE VALUES (BMGVS) - EH40/2005

Identification	NULL	NULL	NULL
2-butoxyethanol CAS: 111-76-2	280 mg/g (NULL)	Butoxyacetic acid in urine	Post shift

8.2. Exposure controls

Individual protection measures, such as personal protective equipment:

As a preventative measure it is recommended to use basic Personal Protective Equipment, with the corresponding <<UKCA marking>>. For more information on Personal Protective Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation which needs some specification from the labour risk prevention services as it is not known whether the company has additional measures at its disposal.

Respiratory protection: The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

Specific protection for the hands:

Pictogram:	Mandatory hand protection
PPE:	Protective gloves against minor risks
Remarks:	Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional users/industrials, we recommend using CE III gloves in line with standards EN 420:2004+A1:2010 and EN ISO 374-1:2016+A1:2018
Note:	As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application.

Ocular and facial protection:

Pictogram:	Mandatory face protection
PPE:	Panoramic glasses against liquid splash/projections
Remarks:	Clean daily and disinfect periodically according to the manufacturer's instructions. Use if there is a risk of splashing.

Bodily protection:

PPE:	Work clothing
Remarks:	Replace before any evidence of deterioration. For periods of prolonged exposure to the product for professional/industrial users CE III is recommended, in accordance with the regulations in EN ISO 6529:2013, EN ISO 6530:2005, EN ISO 13688:2013, EN 464:1994.
PPE:	Anti-slip work shoes
Remarks:	Replace before any evidence of deterioration. For periods of prolonged exposure to the product for professional/industrial users CE III is recommended, in accordance with the regulations in EN ISO 20345:2012 y EN 13832-1:2007

Additional emergency measures:

Emergency measure:	Emergency shower
Standards:	ANSI Z358-1, ISO 3864-1:2011, ISO 3864-4:2011
Emergency measure:	Eyewash stations
Standards:	DIN 12 899, ISO 3864-1:2011, ISO 3864-4:2011

Environmental exposure controls: In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Physical state at 20 ºC:	Liquid
Appearance:	Colorless
Colour:	Colourless
Odour:	Solvent
Vapour pressure at 50 ºC:	11756.06 Pa (11.76 kPa)
Density at 20 ºC:	1022 - 1042 kg/m³ (ISO 649-2)
Relative density at 20 ºC:	1.022 - 1.042
pH:	10 - 12
Solubility properties:	Miscible

9.2. Other information
Non-applicable

SECTION 10: Stability and Reactivity

10.1. Reactivity
No hazardous reactions are expected if the following technical instructions storage of chemicals. See section 7.

10.2. Chemical stability
Chemically stable under the conditions of storage, handling and use.

10.3. Possibility of hazardous reactions
Under the specified conditions, hazardous reactions that lead excessive temperatures or pressure are not expected.

10.4. Conditions to avoid
Not applicable

10.5. Incompatible materials

Acids:	Avoid strong acids
Oxidising materials:	Precaution
Others:	Avoid alkalis or strong bases

10.6. Hazardous decomposition products
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: Toxicological Information

11.1. Information on toxicological effects
Contains glycols. It is recommended not to breathe the vapours for prolonged periods of time due to the possibility of effects that are hazardous to the health.

Dangerous health implications: In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

Ingestion (acute effect):	Acute toxicity : The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting. Corrosivity/Irritability: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.
Inhalation (acute effect):	Acute toxicity : Based on available data, the classification criteria are not met. However, it contains substances classified as dangerous for inhalation. For more information see section 3. Corrosivity/Irritability: Based on available data, the classification criteria are not met. However, it does contain substances classified as dangerous for this effect. For more information see section 3.
Contact with the skin and the eyes (acute effect):	Contact with the skin: Produces skin inflammation. Contact with the eyes: Produces serious eye damage after contact.
CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):	Carcinogenicity: Based on available data, the classification criteria are not met. IARC: 2-butoxyethanol (3) Mutagenicity: Based on available data, the classification criteria are not met Reproductive toxicity: Based on available data, the classification criteria are not met
Sensitizing effects:	Respiratory: Based on available data, the classification criteria are not met. Cutaneous: Based on available data, the classification criteria are not met.

Specific target organ toxicity (STOT) - single exposure:
Based on available data, the classification criteria are not met.
Specific target organ toxicity (STOT)-repeated exposure:
Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met. However, it contains substances classified as dangerous for inhalation. For more information see section 3.
Skin: Based on available data, the classification criteria are not met.
Aspiration hazard: Based on available data, the classification criteria are not met.
Other information: Non-applicable

Product-specific toxicological information:
Acute toxicity (LD50 oral): 1830 mg/kg (Genus: rat)

Specific toxicology information on the substances:

Identification	Acute toxicity		Genus
2-butoxyethanol CAS: 111-76-2	LD50 oral	470 mg/kg	Rat
	LD50 dermal	3000 mg/kg	Rabbit
	LC50 inhalation	450 mg/l (4 h)	Rat
Sulfuric acid, mono-C12-14-alkyl esters, sodium salts CAS: 85586-07-8	LD50 oral	1800 mg/kg	Rat
	LD50 dermal	>5000 mg/kg	-
	LC50 inhalation	>5 mg/l (4h)	-
Tetrasodium ethylenediaminetetraacetate CAS: 64-02-8	LD50 oral	1913 mg/kg	Rat
	LD50 dermal	>5000 mg/kg	-
	LC50 inhalation	11 mg/l (4h) (ATEI)	-
Amines, C12-18-alkyldimethyl, N-oxides CAS: 68955-55-5	LD50 oral	1236 mg/kg	Rat
	LD50 dermal	>5000 mg/kg	-
	LC50 inhalation	>5 mg/l (4h)	-
Amines, coco alkyldimethyl CAS: 61788-93-0	LD50 oral	>5000 mg/kg	-
	LD50 dermal	>5000 mg/kg	-
	LC50 inhalation	>20 mg/kg	-

Acute Toxicity Estimate (ATE mix):

ATE Mix		Ingredient(s) of unknown toxicity
Dermal	>5000 mg/kg (Calculation method)	Non-applicable
Inhalation	183.03 mg/L (4 h) (Calculation method)	0%

SECTION 12: Ecological Information

12.1. Toxicity

Acute toxicity:

Identification	Acute toxicity		Specie	Genus
Sulfuric acid, mono-C12-14-alkyl esters, sodium salts CAS: 85586-07-8	LC50	3.6 mg/L (96 h)	Oncorhynchus mykiss	Fish
	EC50	4.7 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	12 mg/L (72 h)	Desmodesmus subspicatus	Alga
2-butoxyethanol CAS: 111-76-2	LC50	1490 mg/L (96 h)	Lepomis macrochirus	Fish
	EC50	1815 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	911 mg/L (72 h)	Pseudokirchneriella subcapitata	Alga
Amines, C12-18-alkyldimethyl, N-oxides CAS: 68955-55-5	LC50	1.26 mg/L (96 h)	Danio rerio	Fish
	EC50	2.4 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	0.143 mg/L (72 h)	Desmodesmus subspicatus	Alga
Amines, coco alkyldimethyl CAS: 61788-93-0	LC50	>0.1 - 1 (96 h)	-	Fish
	EC50	>0.1 - 1 (48 h)	-	Crustacean
	EC50	>0.1 - 1 (72 h)	-	Algae

Chronic toxicity:

Identification	Acute toxicity		Specie	Genus
Sulfuric acid, mono-C12-14-alkyl esters, sodium salts; CAS: 85586-07-8	NOEC	1.357 mg/L	Pimephales promelas	Fish
	NOEC	Non-applicable	-	-
2-butoxyethanol CAS: 111-76-2	NOEC	100 mg/L	Danio rerio	Fish
	NOEC	100 mg/L	Daphnia magna	Crustacean
Amines, C12-18-alkyldimethyl, N-oxides CAS: 68955-55-5	NOEC	0.495 mg/L	Pimephales promelas	Fish
	NOEC	0.7 mg/L	Daphnia magna	Crustacean
tetrasodium ethylene diamine tetraacetate CAS: 64-02-8	NOEC	25.7 mg/L	Danio rerio	Fish
	NOEC	25 mg/L	Daphnia magna	Crustacean

12.2. Persistence and degradability

Identification	Degradability		Biodegradability	
Sulfuric acid, mono-C12-14-alkyl esters, sodium salts CAS: 85586-07-8	BOD5	Non-applicable	Concentration	15 mg/L
	Code	Non-applicable	Period	28 days
	BOD5/COD	Non-applicable	% Biodegradable	98%
2-butoxyethanol CAS: 111-76-2	BOD5	0.71g O2/g	Concentration	100 mg/L
	Code	2.2g O2/g	Period	14 days
	BOD5/COD	0.32	% Biodegradable	96%
Amines, C12-18-alkyldimethyl, N-oxides CAS: 68955-55-5	BOD5	Non-applicable	Concentration	15.7 mg/L
	Code	Non-applicable	Period	28 days
	BOD5/COD	Non-applicable	% Biodegradable	80%

12.3. Bioaccumulative potential

Identification	Biodegradability	
Sulfuric acid, mono-C12-14-alkyl esters, sodium salts CAS: 85586-07-8	BCF	2
	Pow Log	0.78
	Potential	Low
2-butoxyethanol CAS: 111-76-2	BCF	3
	Pow Log	0.83
	Potential	Low
tetrasodium ethylene diamine tetraacetate CAS: 64-02-8	BCF	2
	Pow Log	-13
	Potential	Low

12.4. Mobility in soil

Identification	Acute toxicity		Volatility	
Sulfuric acid, mono-C12-14-alkyl esters, sodium salts CAS: 85586-07-8	Koc	350	Henry	Non-applicable
	Conclusion	Moderate	Dry Soil	Non-applicable
	Surface Tension	29900 N/m (23 ºC)	Moist Soil	Non-applicable
2-butoxyethanol CAS: 111-76-2	Koc	8	Henry	1.621E-1 Pa·m³/mol
	Conclusion	Very High	Dry Soil	No
	Surface Tension	27290 N/m (25 ºC)	Moist Soil	Yes
Amines, C12-18-alkyldimethyl, N-oxides CAS: 68955-55-5	Koc	1525	Henry	0E+0 Pa·m³/mol
	Conclusion	Low	Dry Soil	Non-applicable
	Surface Tension	Non-applicable	Moist Soil	Non-applicable
tetrasodium ethylene diamine tetraacetate CAS: 64-02-8	Koc	1046	Henry	0E+0 Pa·m³/mol
	Conclusion	Low	Dry Soil	No
	Surface Tension	Non-applicable	Moist Soil	No

12.5. Results of PBT and vPvB assessment
Not available

12.6. Other adverse effects
Not described

SECTION 13: Disposal Considerations

13.1. Waste treatment methods
Waste management (disposal and evaluation):
Consult the authorized waste service manager on the assessment and disposal operations in accordance with Annex 1 and Annex 2 (Directive 2008/98/EC). As under 15 01 (2000/532/EC) of the code and in case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See paragraph 6.2.

Regulations related to waste management:
In accordance with Annex II of UK UK REACH the provisions related to waste management are stated
UK legislation: The Waste Regulations 2011.

SECTION 14: Transport Information

This product is not regulated for transport (ADR/RID,IMDG,IATA)

SECTION 15: Regulatory Information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
Specific provisions in terms of protecting people or the environment:
It is recommended to use the information included in this safety data sheet as a basis for conducting workplace-specific risk assessments in order to establish the necessary risk prevention measures for the handling, use, storage and disposal of this product.

The REACH etc. (Amendment etc.) (EU Exit) Regulations 2020.
The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use) (Amendment etc.) (EU Exit) Regulations 2019.
Control of Substances Hazardous to Health Regulations 2002 (as amended)
EH40/2005 Workplace exposure limits.

15.2. Chemical Safety Assessment
The supplier has not carried out evaluation of chemical safety.

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16. OTHER INFORMATION

The information contained herein relates only to the designated formulation and may not be valid if product is used in combination with other substances. The information is to the best of our knowledge, belief and understanding, true, accurate and reliable at the date of issue. However, the information may neither be exhaustive or complete, and no warranty, guarantee or liability concerning the accuracy or completeness of the information is expressed or implied. It is the user's risk and sole responsibility to verify and satisfy their own criteria and duty of care concerning the validity of the information in relation to their application of the product.

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