

**SAFETY DATA SHEET****Enviroboost**

According to Regulation (EC) No 1907/2006, Annex II, as amended.

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier****Product name** Enviroboost**1.2. Relevant identified uses of the substance or mixture and uses advised against****Identified uses** Complementary feed additive .**Uses advised against** Use only for intended applications.**1.3. Details of the supplier of the safety data sheet****Supplier**

Osmonds
Bradeley Green,
Tarpoley Road,
Whitchurch,
Shropshire,
SY13 4HD
Tel: 01948 668100 (09:00 - 17:00)
info@osmonds.co.uk

1.4. Emergency telephone number**Emergency telephone** Osmonds - Tel 01948668100 (09:00 - 17:00)**National emergency telephone number** 999 / 112**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****Classification (EC 1272/2008)****Physical hazards** Not Classified**Health hazards** Skin Corr. 1B - H314 Eye Dam. 1 - H318**Environmental hazards** Not Classified**Classification (67/548/EEC or 1999/45/EC)** C; R34**Human health** Corrosive to skin and eyes. Corrosive to the respiratory tract. Burns can occur. Irritation of nose, throat and airway.**2.2. Label elements**

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Pictogram



Signal word

Danger

Hazard statements

H314 Causes severe skin burns and eye damage.

Precautionary statements

P260 Do not breathe vapour/ spray.
 P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
 P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.
 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 contents/ container in accordance with national regulations.

Supplemental label information

EUH071 Corrosive to the respiratory tract.

Contains

FORMIC ACID, ACETIC ACID

Supplementary precautionary statements

P264 Wash contaminated skin thoroughly after handling.
 P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
 P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 P321 Specific treatment (see medical advice on this label).
 P363 Wash contaminated clothing before reuse.
 P405 Store locked up.

2.3. Other hazards

This substance is not classified as PBT or vPvB according to current EU criteria.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

FORMIC ACID			20-30%
CAS number: 64-18-6	EC number: 200-579-1	REACH registration number: 01-2119491174-37-XXXX	

Classification

Flam. Liq. 3 - H226
 Acute Tox. 4 - H302
 Acute Tox. 3 - H331
 Skin Corr. 1A - H314
 Eye Dam. 1 - H318

Classification (67/548/EEC or 1999/45/EC)

T; R23. Xn; R22. C; R35. R10

ACETIC ACID

CAS number: 64-19-7

EC number: 200-580-7

REACH registration number: 01-2119475328-30-XXXX

10-20%

Classification

Flam. Liq. 3 - H226
 Skin Corr. 1A - H314
 Eye Dam. 1 - H318

Classification (67/548/EEC or 1999/45/EC)

C; R35. R10

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The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information	Take off immediately all contaminated clothing.
Inhalation	Keep affected person warm and at rest. Move affected person to fresh air at once. In case of lung irritation, first treatment with dexametason aerosol (spray). If breathing stops, provide artificial respiration. Get medical attention immediately.
Ingestion	Do not induce vomiting. Rinse mouth thoroughly with water. Give plenty of water to drink. Never give anything by mouth to an unconscious person. Get medical attention immediately.
Skin contact	Remove affected person from source of contamination. Rinse immediately with plenty of water. Continue to rinse for at least 15 minutes and get medical attention. Get medical attention if symptoms are severe or persist after washing.
Eye contact	Remove any contact lenses and open eyelids wide apart. Rinse immediately with plenty of water. Continue to rinse for at least 15 minutes. Get medical attention immediately.

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

Inhalation	Vapour may irritate respiratory system/lungs. Corrosive to the respiratory tract.
Ingestion	May cause discomfort if swallowed. May cause chemical burns in mouth, oesophagus and stomach.
Skin contact	Corrosive. Chemical burns.
Eye contact	This product is corrosive. May cause chemical eye burns.

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

Notes for the doctor	Do NOT induce vomiting. In case of ingestion, the stomach should be emptied by gastric lavage under qualified medical supervision.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Water spray, foam, dry powder or carbon dioxide.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Specific hazards	No unusual fire or explosion hazards noted.
Hazardous combustion products	Thermal decomposition or combustion products may include the following substances: Oxides of carbon. Toxic gases or vapours. Corrosive gases or vapours.

5.3. Advice for firefighters

Protective actions during firefighting	Cool containers exposed to flames with water until well after the fire is out. Control run-off water by containing and keeping it out of sewers and watercourses.
Special protective equipment for firefighters	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Use special protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

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Personal precautions Wear protective clothing as described in Section 8 of this safety data sheet. Evacuate area. Provide adequate ventilation. Avoid inhalation of vapours/spray and contact with skin and eyes. No smoking, sparks, flames or other sources of ignition near spillage.

6.2. Environmental precautions

Environmental precautions Do not discharge into drains or watercourses or onto the ground. Inform the relevant authorities if environmental pollution occurs (sewers, waterways, soil or air).

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Wash thoroughly after dealing with a spillage. Absorb in vermiculite, dry sand or earth and place into containers.

6.4. Reference to other sections

Reference to other sections For waste disposal, see Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Avoid spilling. Avoid inhalation of vapours/spray and contact with skin and eyes. Wear protective clothing as described in Section 8 of this safety data sheet.

Advice on general occupational hygiene Provide eyewash station and safety shower.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry, cool and well-ventilated place. Keep at temperature not exceeding 30°C.

Storage class Corrosive storage.

7.3. Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters

Occupational exposure limits

FORMIC ACID

Long-term exposure limit (8-hour TWA): WEL 5 ppm 9.6 mg/m³

ACETIC ACID

Long-term exposure limit (8-hour TWA): EU 10 ppm 25 mg/m³

EU = Indicative Values according to Commission Directive 91/322/EEC.

WEL = Workplace Exposure Limit

FORMIC ACID (CAS: 64-18-6)

DNEL

Workers - Inhalation; Short term local effects: 19 mg/m³
 Workers - Inhalation; Short term systemic effects: 19 mg/m³
 Workers - Inhalation; Long term local effects: 9.5 mg/m³
 Workers - Inhalation; Long term systemic effects: 9.5 mg/m³
 Consumer - Inhalation; Short term systemic effects: 9.5 mg/m³
 Consumer - Inhalation; Short term systemic effects: 9.5 mg/m³
 Consumer - Inhalation; Long term local effects: 3 mg/m³
 Consumer - Inhalation; Long term systemic effects: 3 mg/m³

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PNEC

- Fresh water; 2 mg/l
- Marine water; 0.2 mg/l
- Intermittent release; 1 mg/l
- Sediment (Freshwater); 13.4 mg/kg
- Soil; 1.5 mg/kg
- STP; 7.2 mg/l

ACETIC ACID (CAS: 64-19-7)

DNEL

Industry - Inhalation; Short term local effects: 25 mg/m³
 Industry - Inhalation; Long term local effects: 25 mg/m³

PNEC

- Fresh water; 3.058 mg/l
- Sediment (Marinewater); 1.136 mg/kg
- STP; 85 mg/l
- Marine water; 0.3058 mg/l
- Soil; 0.478 mg/kg
- Sediment (Freshwater); 11.36 mg/kg
- Intermittent release; 30.58 mg/l

8.2. Exposure controls

Protective equipment



Appropriate engineering controls

No specific ventilation requirements.

Eye/face protection

Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. The following protection should be worn: Wear tight-fitting, chemical splash goggles or face shield.

Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. It is recommended that gloves are made of the following material: Butyl rubber.

Other skin and body protection

Wear appropriate clothing to prevent any possibility of skin contact.

Hygiene measures

Provide eyewash station and safety shower. Wash at the end of each work shift and before eating, smoking and using the toilet. Wash promptly if skin becomes contaminated. Promptly remove any clothing that becomes contaminated. Use appropriate skin cream to prevent drying of skin. When using do not eat, drink or smoke. Do not smoke in work area.

Respiratory protection

Respiratory protection must be used if the airborne contamination exceeds the recommended occupational exposure limit. Respirator selection must be based on exposure levels, the hazards of the product and the safe working limits of the selected respirator. In case of brief exposure or low pollution use breathing filter apparatus fitted with: Gas filter, type E. If mists are created use in combination with: High-efficiency particulate filter. In case of intensive or longer exposure use self-contained breathing apparatus.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance

Clear liquid.

Colour

Colourless to pale yellow.

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Odour	Pungent. Acidic.
Odour threshold	No information available.
pH	pH (concentrated solution): 4.0
Melting point	Not applicable.
Initial boiling point and range	>100°C @ 760 mm Hg
Flash point	Does not flash. PMCC (Pensky-Martens closed cup).
Evaporation rate	No information available.
Upper/lower flammability or explosive limits	Lower flammable/explosive limit: 14.9 %, V Upper flammable/explosive limit: 47.6 V, % Formic Acid Lower flammable/explosive limit: 4 V, % Upper flammable/explosive limit: 19.9 %, V Acetic acid.
Vapour pressure	No information available.
Vapour density	>1
Relative density	1.06 @ 20°C
Bulk density	Not applicable.
Solubility(ies)	Miscible with water.
Partition coefficient	No information available.
Auto-ignition temperature	500°C Formic Acid 550°C Acetic acid.
Decomposition Temperature	No information available.
Viscosity	No information available.
Explosive properties	Formation of explosive air/vapour mixtures is possible.
Oxidising properties	Not available.
Comments	Information declared as "Not available" or "Not applicable" is not considered to be relevant to the implementation of the proper control measures.

9.2. Other information

Volatile organic compound No information available.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity There are no known reactivity hazards associated with this product.

10.2. Chemical stability

Stability Stable at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions Will not polymerise. Materials to avoid: Hydrogen peroxide - explosive properties In contact with some metals can generate hydrogen gas, which can form explosive mixtures with air.

10.4. Conditions to avoid

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Conditions to avoid Avoid excessive heat for prolonged periods of time. Avoid heat, flames and other sources of ignition. Avoid exposure to high temperatures or direct sunlight. Heating may generate flammable vapours.

10.5. Incompatible materials

Materials to avoid Strong alkalis. Strong oxidising agents. Strong reducing agents. Peroxides. Sulphuric acid (H₂SO₄). Aluminium. Acids.

10.6. Hazardous decomposition products

Hazardous decomposition products Thermal decomposition or combustion products may include the following substances: Carbon monoxide (CO). Carbon dioxide (CO₂).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

Notes (oral LD₅₀) Based on available data the classification criteria are not met.

ATE oral (mg/kg) 2,959.51

Acute toxicity - dermal

Notes (dermal LD₅₀) Based on available data the classification criteria are not met.

Acute toxicity - inhalation

Notes (inhalation LC₅₀) Based on available data the classification criteria are not met.

ATE inhalation (vapours mg/l) 30.0

Skin corrosion/irritation

Skin corrosion/irritation Corrosive to skin.

Serious eye damage/irritation

Serious eye damage/irritation Corrosivity to eyes is assumed.

Respiratory sensitisation

Respiratory sensitisation Based on available data the classification criteria are not met.

Skin sensitisation

Skin sensitisation Based on available data the classification criteria are not met.

Germ cell mutagenicity

Genotoxicity - in vitro Does not contain any substances known to be mutagenic.

Carcinogenicity

Carcinogenicity Does not contain any substances known to be carcinogenic.

Reproductive toxicity

Reproductive toxicity - fertility Does not contain any substances known to be toxic to reproduction.

Specific target organ toxicity - single exposure

STOT - single exposure Based on available data the classification criteria are not met.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Based on available data the classification criteria are not met.

Aspiration hazard

Aspiration hazard Not applicable.

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Inhalation	Irritating gases or vapours. Corrosive to the respiratory tract.
Ingestion	May cause discomfort if swallowed. May cause chemical burns in mouth, oesophagus and stomach.
Skin contact	This product is corrosive. Prolonged contact may cause burns.
Eye contact	May cause chemical eye burns.
Route of entry	Skin and/or eye contact Inhalation
Medical symptoms	Irritation of eyes and mucous membranes. May cause blurred vision and serious eye damage. Chemical burns. Corrosive to the respiratory tract. May cause chemical burns in mouth, oesophagus and stomach.

SECTION 12: Ecological Information

Ecotoxicity	Not known. The product components are not classified as environmentally hazardous. However, large or frequent spills may have hazardous effects on the environment. The product may affect the acidity (pH) of water which may have hazardous effects on aquatic organisms.
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12.1. Toxicity

Acute toxicity - fish	Not known.
Acute toxicity - aquatic invertebrates	Not known.
Acute toxicity - aquatic plants	Not known.

12.2. Persistence and degradability

Persistence and degradability	The product is readily biodegradable.
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12.3. Bioaccumulative potential

Bioaccumulative potential	No data available on bioaccumulation. Bioaccumulation is unlikely.
Partition coefficient	No information available.

12.4. Mobility in soil

Mobility	The product is miscible with water and may spread in water systems.
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12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment	This substance is not classified as PBT or vPvB according to current EU criteria.
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12.6. Other adverse effects

Other adverse effects	Not known.
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SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information	When handling waste, the safety precautions applying to handling of the product should be considered. Empty contaminated packaging thoroughly. They can be recycled after thorough and proper cleaning. Packaging that cannot be cleaned are to be disposed of in the same manner as the product.
Disposal methods	Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. When handling waste, the safety precautions applying to handling of the product should be considered. Do not empty into drains.

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SECTION 14: Transport information

14.1. UN number

UN No. (ADR/RID)	3265
UN No. (IMDG)	3265
UN No. (ICAO)	3265
UN No. (ADN)	3265

14.2. UN proper shipping name

Proper shipping name (ADR/RID)	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (CONTAINS FORMIC ACID AND ACETIC ACID)
Proper shipping name (IMDG)	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (CONTAINS FORMIC ACID AND ACETIC ACID)
Proper shipping name (ICAO)	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (CONTAINS FORMIC ACID AND ACETIC ACID)
Proper shipping name (ADN)	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (CONTAINS FORMIC ACID AND ACETIC ACID)

14.3. Transport hazard class(es)

ADR/RID class	8
ADR/RID classification code	C3
ADR/RID label	8
IMDG class	8
ICAO class/division	8
ADN class	8

Transport labels



14.4. Packing group

ADR/RID packing group	II
IMDG packing group	II
ICAO packing group	II
ADN packing group	II

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant
No.

14.6. Special precautions for user

EmS	F-A, S-B
ADR transport category	2
Emergency Action Code	2X

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Hazard Identification Number 80
(ADR/RID)

Tunnel restriction code (E)

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Transport in bulk according to Not Known

Annex II of MARPOL 73/78

and the IBC Code

SECTION 15: Regulatory information

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

EU legislation Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).
Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

Abbreviations and acronyms used in the safety data sheet CAS: Chemical Abstracts Service.
PBT: Persistent, Bioaccumulative and Toxic substance.
vPvB: Very Persistent and Very Bioaccumulative.
DNEL: Derived No Effect Level.
PNEC: Predicted No Effect Concentration.
ATE: Acute Toxicity Estimate.
LC₅₀: Lethal Concentration to 50 % of a test population.
LD₅₀: Lethal Dose to 50% of a test population (Median Lethal Dose).
EC₅₀: 50% of maximal Effective Concentration.
IMDG: International Maritime Dangerous Goods.
IATA: International Air Transport Association.
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
UN: United Nations.
MARPOL 73/78: International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978.
IBC: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk (International Bulk Chemical Code).
GHS: Globally Harmonized System.

Key literature references and sources for data Material Safety Data Sheet, Misc. manufacturers.

Classification procedures according to Regulation (EC) 1272/2008 : Calculation method., On basis of test data.

Revision comments This is first issue.

Issued by J Waterfield

Revision date 17/01/2016

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Revision	0.0
SDS number	22227
Risk phrases in full	R10 Flammable. R22 Harmful if swallowed. R23 Toxic by inhalation. R34 Causes burns. R35 Causes severe burns.
Hazard statements in full	H226 Flammable liquid and vapour. H302 Harmful if swallowed. H314 Causes severe skin burns and eye damage. H318 Causes serious eye damage. H331 Toxic if inhaled.

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 process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.