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

1.1 Product identifier

Trade name	BETANAL TANDEM
Product code (UVP)	92867999
UFI	1WW5-A07C-Q002-R48K (for Northern Ireland only)

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

Use	Herbicide

1.3 Details of the supplier of the safety data sheet

Supplier	Bayer CropScience Limited PO Box 1582 CB1 0FE Cambridge United Kingdom
Telephone	+44(0)1223 226500
FOR NORTHERN IRELAND:	Bayer CropScience Ltd Bayer Ltd 1st Floor, The Grange Offices The Grange, Brewery Road Stillorgan Co. Dublin A94 H2K7 Ireland
Telephone	+353 1 216 3300
Responsible Department	Email: gb-bcs-crop-regulatory-affairs@bayer.com

1.4 Emergency telephone no.

Emergency telephone no.	0330 678 3382 (24 hr) For Medical Professionals: You can also contact the relevant NPIS. For Members to the Public: You can contact NHS111 (for GB) or your local GP (for Northern Ireland) National Poisons Information Centre UK: 0344 892 0111 National Poisons Information Centre Dublin: +353 1 809 2166

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification in accordance with Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures, as amended. (CLP Regulation including Northern Ireland)

Eye irritation: Category 2
H319 Causes serious eye irritation.

Short-term (acute) aquatic hazard: Category 1
H400 Very toxic to aquatic life.

Long-term (chronic) aquatic hazard: Category 1
H410 Very toxic to aquatic life with long lasting effects.

Persistent, mobile and toxic:
EUH450 Can cause long-lasting and diffuse contamination of water resources.

Classification according to UK/GB regulations

Eye irritation: Category 2
H319 Causes serious eye irritation.

Short-term (acute) aquatic hazard: Category 1
H400 Very toxic to aquatic life.

Long-term (chronic) aquatic hazard: Category 1
H410 Very toxic to aquatic life with long lasting effects.

2.2 Label elements

Labelling in accordance with Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures, as amended. (CLP Regulation including Northern Ireland)

Hazard label for supply/use required.

Hazardous components which must be listed on the label:

- Phenmedipham
- Ethofumesate

Signal word: Danger

Hazard statements

H319	Causes serious eye irritation.
H410	Very toxic to aquatic life with long lasting effects.
EUH450	Can cause long-lasting and diffuse contamination of water resources.
EUH208	Contains reaction mass of 5-chloro-2- methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3- one (3:1). May produce an allergic reaction.
EUH401	To avoid risks to human health and the environment, comply with the instructions for use.

Precautionary statements

P201	Obtain special instructions before use.

P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P391	Collect spillage.
P501	Dispose of contents/container in accordance with local regulation.

Labelling according to UK/GB regulations

Hazard label for supply/use required.

Hazardous components which must be listed on the label:

- Phenmedipham
- Ethofumesate

Signal word: Danger

Hazard statements

H319	Causes serious eye irritation.
H410	Very toxic to aquatic life with long lasting effects.
EUH208	Contains reaction mass of 5-chloro-2- methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3- one (3:1). May produce an allergic reaction.
EUH401	To avoid risks to human health and the environment, comply with the instructions for use.

Precautionary statements

P201	Obtain special instructions before use.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P264	Wash face, hands and any exposed skin thoroughly after handling.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313	If eye irritation persists: Get medical advice/ attention.
P391	Collect spillage.
P501	Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous waste.

2.3 Other hazards

Product contains substances which are persistent, mobile, and toxic (PMT).
Product does not contain substances that are very persistent and very mobile (vPvM) 0.1 % or higher.

Alkylethersulfate, sodium salt: This substance is not considered to be persistent, bioaccumulative and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulative (vPvB).
Ethofumesate: This substance is not considered to be persistent, bioaccumulative and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulative (vPvB).
Phenmedipham: This substance is not considered to be persistent, bioaccumulative and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulative (vPvB).

Ecological information:	The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.
Toxicological information:	The substance/mixture does not contain components considered to

have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

Chemical nature

Suspension concentrate (=flowable concentrate)(SC)
Phenmedipham/Ethofumesate 200:190 g/l

Hazardous components

Hazard statements according to Regulation (EC) No. 1272/2008

Name	CAS-No. / EC-No. / REACH Reg. No.	Classification REGULATION (EC) No 1272/2008	Conc. [%]
Phenmedipham	13684-63-4	Aquatic Acute 1, H400 Aquatic Chronic 1, H410 PMT EUH450	17.90
Ethofumesate	26225-79-6	Aquatic Acute 1, H400 Aquatic Chronic 1, H410	17.00
Alkylethersulfate, sodium salt	68891-38-3 01-2119488639-16-XXXX	Eye Dam. 1, H318 Skin Irrit. 2, H315 Aquatic Chronic 3, H412	>= 3 – < 5
Diethylene glycol	111-46-6 01-2119457857-21-XXXX	Acute Tox. 4, H302	>= 1 – < 10
reaction mass of 5-chloro-2- methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3- one (3:1)	55965-84-9 01-2120764691-48-XXXX	Acute Tox. 3, H301 Acute Tox. 2, H310 Acute Tox. 2, H330 Skin Corr. 1C, H314 Eye Dam. 1, H318 Skin Sens. 1A, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	>= 0.00015 – < 0.0015

Further information

reaction mass of 5-chloro-2- methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	55965-84-9	SCL: Skin Corr. 1C; H314: SCL >= 0.6 %
reaction mass of 5-chloro-2- methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	55965-84-9	SCL: Skin Irrit. 2; H315: SCL 0.06 - < 0.6 %
reaction mass of 5-chloro-2- methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-	55965-84-9	SCL: Eye Irrit. 2; H319: SCL 0.06 - < 0.6 %

one (3:1)		
reaction mass of 5-chloro-2- methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	55965-84-9	SCL: Skin Sens. 1A; H317: SCL >= 0.0015 %
reaction mass of 5-chloro-2- methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	55965-84-9	SCL: Eye Dam. 1; H318: SCL >= 0.6 %

For the full text of the H-Statements mentioned in this Section, see Section 16.

Particle characteristics

This substance/ mixture does not contain nanoforms.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

General advice Move out of dangerous area. Place and transport victim in stable position (lying sideways). Remove contaminated clothing immediately and dispose of safely.

Inhalation Move to fresh air. Keep patient warm and at rest. Call a physician or poison control center immediately.

Skin contact Wash off thoroughly with plenty of soap and water, if available with polyethyleneglycol 400, subsequently rinse with water. Call a physician or poison control center immediately.

Eye contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a physician or poison control center immediately.

Ingestion Do NOT induce vomiting. Rinse mouth. Keep at rest. Call a physician or poison control center immediately.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms Drowsiness, Headache, lethargy, Dyspnoea, ataxia, Tremors

4.3 Indication of any immediate medical attention and special treatment needed

Risks This product, although being a carbamate, is NOT a cholinesterase inhibitor.

Treatment Treat symptomatically. In case of ingestion gastric lavage should be considered in cases of significant ingestions only within the first 2 hours. However, the application of activated charcoal and sodium sulphate is always advisable. Forced alkaline diuresis and hemodialysis may be considered. There is no specific antidote.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable	Water spray, Carbon dioxide (CO2), Foam, Sand

5.2 Special hazards arising from the substance or mixture	In the event of fire the following may be released:, Hydrogen cyanide (hydrocyanic acid), Carbon monoxide (CO), Nitrogen oxides (NOx), Sulphur oxides

5.3 Advice for firefighters

Special protective equipment for firefighters	In the event of fire and/or explosion do not breathe fumes. Wear self-contained breathing apparatus and protective suit.
Further information	Contain the spread of the fire-fighting media. Do not allow run-off from fire fighting to enter drains or water courses.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Precautions	Avoid contact with spilled product or contaminated surfaces. Use personal protective equipment.

6.2 Environmental precautions	Do not allow to get into surface water, drains and ground water.

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up	Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Collect and transfer the product into a properly labelled and tightly closed container. Clean contaminated floors and objects thoroughly, observing environmental regulations.
Additional advice	Check also for any local site procedures.

6.4 Reference to other sections	Information regarding safe handling, see section 7. Information regarding personal protective equipment, see section 8. Information regarding waste disposal, see section 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Advice on safe handling	No specific precautions required when handling unopened packs/containers; follow relevant manual handling advice. Ensure adequate ventilation.
Hygiene measures	Avoid contact with skin, eyes and clothing. Keep working clothes separately. Wash hands before breaks and immediately after handling the product. Remove contaminated clothing immediately and dispose of safely.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers	Store in original container. Keep containers tightly closed in a dry, cool and well-ventilated place. Store in a place accessible by authorized persons only. Protect from frost. Keep away from direct sunlight.
Advice on common storage	Keep away from food, drink and animal feedingstuffs.
Suitable materials	HDPE (high density polyethylene) HDPE (high density polyethylene) -fluorinated Coex HDPE/EVOH/HDPE

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components	CAS-No.	Control parameters	Update	Basis
Diethylene glycol	111-46-6	101 mg/m3/23 ppm (TWA)	2007	EH40 WEL
Diethylene glycol	111-46-6	10 ppm (TWA)		OES BCS*
Ethofumesate	26225-79-6	10 mg/m3 (TWA)		OES BCS*
Phenmedipham	13684-63-4	0.84 mg/m3 (TWA)		OES BCS*

*OES BCS: Internal Bayer AG, Crop Science Division "Occupational Exposure Standard"

8.2 Exposure controls

Refer to COSHH assessment (Control of Substances Hazardous to Health (Amendment) Regulations 2004). Engineering controls should be used in preference to personal protective equipment wherever practicable. Refer also to COSHH Essentials.

Personal protective equipment
In normal use and handling conditions please refer to the label and/or leaflet. In all other cases the following recommendations would apply.

Respiratory protection

Respiratory protection is not required under anticipated circumstances of exposure.
Respiratory protection should only be used to control residual risk of short duration activities, when all reasonably practicable steps have been taken to reduce exposure at source e.g. containment and/or local extract ventilation. Always follow respirator manufacturer's instructions regarding wearing and maintenance.

Hand protection

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.
Wash gloves when contaminated. Dispose of when contaminated inside, when perforated or when contamination on the outside cannot be removed. Wash hands frequently and always before eating, drinking, smoking or using the toilet.

Material	Nitrile rubber
Rate of permeability	> 480 min

	Glove thickness	> 0.4 mm
	Protective index	Class 6
	Directive	Protective gloves complying with EN 374.
Eye protection	Wear goggles (conforming to EN166, Field of Use = 5 or equivalent).	
Skin and body protection	Wear standard coveralls and Category 3 Type 6 suit. If there is a risk of significant exposure, consider a higher protective type suit. Wear two layers of clothing wherever possible. Polyester/cotton or cotton overalls should be worn under chemical protection suit and should be professionally laundered frequently.	
General protective measures	If product is handled while not enclosed, and if contact may occur: Complete suit protecting against chemicals	

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Form	suspension
Colour	light brown
Odour	acid-like
Odour Threshold	No data available
Melting point/ range	No data available
Boiling point/boiling range	ca. 100 °C
Flammability	No data available
Upper explosion limit	No data available
Lower explosion limit	No data available
Flash point	> 101 °C
Auto-ignition temperature	510 °C
Thermal decomposition	> 275 °C Heating rate:10 K/min
Self-accelarating decomposition temperature (SADT)	No data available
pH	5.5 - 7.0 (100 %) (23 °C)
Viscosity, dynamic	50 - 150 mPa.s (20 °C) Velocity gradient 100 /s 250 - 350 mPa.s (20 °C) Velocity gradient 20 /s
Viscosity, kinematic	175 mm²/s (40 °C) Shear rate of 20/sec 69 mm²/s (40 °C) Shear rate of 100/sec

Water solubility	dispersible
Partition coefficient: n-octanol/water	Alkylethersulfate, sodium salt: log Pow: 0.3 Ethofumesate: log Pow: 2.7 (25 °C) Phenmedipham: log Pow: 3.59
Vapour pressure	No data available
Density	ca. 1.12 g/cm³ (20 °C)
Relative density	No data available
Relative vapour density	No data available
Assessment nano particles	This substance/ mixture does not contain nanoforms.
Particle size	No data available

9.2 Other information

Explosivity	Not explosive 92/69/EEC, A.14 / OECD 113
Oxidizing properties	No oxidizing properties
Evaporation rate	No data available
Other physico-chemical properties	Further safety related physical-chemical data are not known.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity	Stable under normal conditions.
10.2 Chemical stability	Stable under recommended storage conditions.
10.3 Possibility of hazardous reactions	No hazardous reactions when stored and handled according to prescribed instructions.
10.4 Conditions to avoid	Extremes of temperature and direct sunlight.
10.5 Incompatible materials	Store only in the original container.
10.6 Hazardous decomposition products	No decomposition products expected under normal conditions of use.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on hazard classes as defined in regulation (EC) No 1272/2008

Acute oral toxicity	LD50 (Rat) > 5,000 mg/kg
Acute inhalation toxicity	LC50 (Rat) > 3.04 mg/l Exposure time: 4 h Determined in the form of a respirable aerosol. Highest attainable concentration. No deaths
Acute dermal toxicity	LD50 (Rat) > 2,000 mg/kg
Skin corrosion/irritation	Slight irritant effect - does not require labelling. (Rabbit)
Serious eye damage/eye irritation	Irritating to eyes. (Rabbit)
Respiratory or skin sensitisation	Skin: Non-sensitizing. (Mouse) OECD Test Guideline 429, local lymph node assay (LLNA)

Assessment STOT Specific target organ toxicity – single exposure

Alkylethersulfate, sodium salt: Based on available data, the classification criteria are not met.
Ethofumesate: Based on available data, the classification criteria are not met.
Phenmedipham: Based on available data, the classification criteria are not met.

Assessment STOT Specific target organ toxicity – repeated exposure

Alkylethersulfate, sodium salt did not cause specific target organ toxicity in experimental animal studies.
Ethofumesate did not cause specific target organ toxicity in experimental animal studies.
Phenmedipham caused haemolytic anaemia, methaemoglobinaemia in animal studies. The observed effects do not appear to be relevant for humans.

Assessment mutagenicity

Alkylethersulfate, sodium salt was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.
Ethofumesate was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.
Phenmedipham was not mutagenic or genotoxic based on the overall weight of evidence in a battery of in vitro and in vivo tests.

Assessment carcinogenicity

Alkylethersulfate, sodium salt was not carcinogenic in lifetime feeding studies in rats and mice.
Ethofumesate was not carcinogenic in lifetime feeding studies in rats and mice.
Phenmedipham was not carcinogenic in lifetime feeding studies in rats and mice.

Assessment toxicity to reproduction

Alkylethersulfate, sodium salt did not cause reproductive toxicity in a two-generation study in rats.
Ethofumesate did not cause reproductive toxicity in a two-generation study in rats.
Phenmedipham caused reproduction toxicity in a two-generation study in rats only at dose levels also toxic to the parent animals. The reproduction toxicity seen with Phenmedipham is related to parental toxicity.

Assessment developmental toxicity

Alkylethersulfate, sodium salt did not cause developmental toxicity in rats and rabbits.
Ethofumesate did not cause developmental toxicity in rats and rabbits.
Phenmedipham caused developmental toxicity only at dose levels toxic to the dams. Phenmedipham caused a delayed ossification of foetuses. The developmental effects seen with Phenmedipham are related to maternal toxicity.

Aspiration hazard

Based on available data, the classification criteria are not met.

11.2 Information on other hazards

Endocrine disrupting properties

Assessment The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Toxicity to fish

LC50 (Oncorhynchus mykiss (rainbow trout)) = 19.8 mg/l
Exposure time: 96 h

LC50 (Oncorhynchus mykiss (rainbow trout)) = 1.84 mg/l
Exposure time: 96 h
The value mentioned relates to the active ingredient phenmedipham.

Chronic toxicity to fish

Oncorhynchus mykiss (rainbow trout)
NOEC: 0.096 mg/l
Exposure time: 92 d
The value mentioned relates to the active ingredient phenmedipham.

Oncorhynchus mykiss (rainbow trout)
NOEC: 0.0041 mg/l
Exposure time: 92 d
The value mentioned relates to the active ingredient phenmedipham.

Toxicity to aquatic invertebrates

EC50 (Daphnia magna (Water flea)) = 104.5 mg/l semi-static test;
Exposure time: 48 h

EC50 (Daphnia magna (Water flea)) = 2.033 mg/l
Exposure time: 48 h
The value mentioned relates to the active ingredient phenmedipham.

Chronic toxicity to aquatic invertebrates

NOEC (Daphnia magna (Water flea)): = 0.005 mg/l
Exposure time: 21 d
The value mentioned relates to the active ingredient phenmedipham.

NOEC (Daphnia magna (Water flea)): = 0.026 mg/l
Exposure time: 21 d
The value mentioned relates to the active ingredient phenmedipham.

NOEC (Daphnia magna (Water flea)): = 0.25 mg/l
Exposure time: 21 d
The value mentioned relates to the active ingredient ethofumesate.

Toxicity to aquatic plants

EC50 (Desmodesmus subspicatus (green algae)) = 15.8 mg/l
Growth rate; Exposure time: 72 h

NOEC (Desmodesmus subspicatus (green algae)) = 1 mg/l

Growth rate; Exposure time: 72 h

ErC50 (Lemna gibba (gibbous duckweed)) = 34.1 mg/l
static test; Exposure time: 7 d

NOEC (Lemna gibba (gibbous duckweed)) < 3.13 mg/l
static test; Exposure time: 7 d

ErC50 (Myriophyllum spicatum (Eurasian watermilfoil)) = 0.479 mg/l
static test; Exposure time: 14 d
The value mentioned relates to the active ingredient ethofumesate.

NOEC (Myriophyllum spicatum (Eurasian watermilfoil)) = 0.036 mg/l
Growth rate; Exposure time: 14 d
The value mentioned relates to the active ingredient ethofumesate.

EC50 (Lemna minor (common duckweed)) = 0.109 mg/l
Biomass; Exposure time: 7 d
The value mentioned relates to the active ingredient phenmedipham.

EC50 (Lemna minor (common duckweed)) > 0.157 mg/l
Growth rate; Exposure time: 7 d
The value mentioned relates to the active ingredient phenmedipham.

EC10 (Lemna minor (common duckweed)) = 0.022 mg/l
Biomass; Exposure time: 7 d
The value mentioned relates to the active ingredient phenmedipham.

EC10 (Lemna minor (common duckweed)) = 0.044 mg/l
Growth rate; Exposure time: 7 d
The value mentioned relates to the active ingredient phenmedipham.

EC10 (Myriophyllum spicatum (Eurasian watermilfoil)) = 0.028 mg/l
Biomass; Exposure time: 7 d
The value mentioned relates to the active ingredient phenmedipham.

EC10 (Myriophyllum spicatum (Eurasian watermilfoil)) = 0.0208 mg/l
Growth rate; Exposure time: 7 d
The value mentioned relates to the active ingredient phenmedipham.

12.2 Persistence and degradability

Biodegradability

Alkylethersulfate, sodium salt:
rapidly biodegradable
Ethofumesate:
Not rapidly biodegradable
Phenmedipham:
Not rapidly biodegradable

Koc

Alkylethersulfate, sodium salt:No data available
Ethofumesate: Koc: 147
Phenmedipham: Koc: 888

12.3 Bioaccumulative potential

Bioaccumulation

Alkylethersulfate, sodium salt:
Does not bioaccumulate.
Ethofumesate: Bioconcentration factor (BCF) 144
Does not bioaccumulate.
Phenmedipham: Bioconcentration factor (BCF) 165
Does not bioaccumulate.

12.4 Mobility in soil

Mobility in soil	Alkylethersulfate, sodium salt: soluble in water Ethofumesate: mobile in soil Phenmedipham: mobile in soil

12.5 Results of PBT and vPvB assessment

PBT and vPvB assessment	Alkylethersulfate, sodium salt: This substance is not considered to be persistent, bioaccumulative and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulative (vPvB). Ethofumesate: This substance is not considered to be persistent, bioaccumulative and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulative (vPvB). Phenmedipham: This substance is not considered to be persistent, bioaccumulative and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulative (vPvB).

12.6 Other adverse effects

Additional ecological information	PMT and vPvM assessment: Product contains substances which are persistent, mobile, and toxic (PMT). Product does not contain substances that are very persistent and very mobile (vPvM) 0.1 % or higher.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product	In accordance with current regulations and, if necessary, after consultation with the site operator and/or with the responsible authority, the product may be taken to a waste disposal site or incineration plant. Advice may be obtained from the local waste regulation authority (part of the Environment Agency in the UK).
Contaminated packaging	Small containers (< 10 l or < 10 kg) should be rinsed thoroughly using an integrated pressure rinsing device, or, by manually rinsing three times. Add washings to sprayer at time of filling. Dispose of empty and cleaned packaging safely. Follow advice on product label and/or leaflet.

SECTION 14: TRANSPORT INFORMATION

ADR/RID/ADN

14.1 UN number	**3082**
14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (PHENMEDIPHAM, ETHOFUMESATE)
14.3 Transport hazard class(es)	9
14.4 Packing group	III
14.5 Environm. Hazardous Mark	YES
Hazard no.	90
Tunnel Code	-

This classification is in principle not valid for carriage by tank vessel on inland waterways. Please refer to the manufacturer for further information.

IMDG

14.1 UN number	**3082**
14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (PHENMEDIPHAM, ETHOFUMESATE)
14.3 Transport hazard class(es)	9
14.4 Packing group	III
14.5 Marine pollutant	YES

IATA

14.1 UN number	**3082**
14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (PHENMEDIPHAM, ETHOFUMESATE)
14.3 Transport hazard class(es)	9
14.4 Packing group	III
14.5 Environm. Hazardous Mark	YES

UK 'Carriage' Regulations

14.1 UN number	**3082**
14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (PHENMEDIPHAM, ETHOFUMESATE)
14.3 Transport hazard class(es)	9
14.4 Packing group	III
14.5 Environm. Hazardous Mark	YES
Emergency action code	3Z

14.6 Special precautions for user
See sections 6 to 8 of this Safety Data Sheet.

14.7 Transport in bulk according to IMO instruments
No transport in bulk according to the IBC Code.

SECTION 15: REGULATORY INFORMATION

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

UK and Northern Ireland Regulatory References

This material may be subject to some or all of the following regulations (and any subsequent amendments). Users must ensure that any uses and restrictions as indicated on the label and/or leaflet are followed.

Transport

Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 (SI 2009 No 1348)
Merchant Shipping (Dangerous Goods and Marine Pollutants) Regulations 1997 (SI 1997 No 2367)
Air Navigation Dangerous Goods Regulations 2002 (SI 2002 No 2786)

Supply and Use

Chemical (Hazard Information and Packaging for Supply) Regulations 2009 (SI 2009 No 716)
Chemical (Hazard Information and Packaging for Supply) (Northern Ireland) Regulations 2009
Control of Substances Hazardous to Health Regulations 2002 (SI 2002 No 2677)
EH40 Occupational Exposure Limits - Table 1 List of approved workplace exposure limits
Control of Pesticide Regulations 1986
Dangerous Substances and Explosive Atmospheres Regulations 2002

Waste Treatment

Environmental Protection Act 1990, Part II
Environmental Protection (Duty of Care) Regulations 1991
The Waste Management Licensing Regulations 1994 (as amended)
Hazardous Waste Regulations 2005 (Replacing Special Waste Regulations 1996 as amended)
Landfill Directive
Regulation on Substances That Deplete the Ozone Layer 1994 (EEC/3093/94)
Water Resources Act 1991
Anti-Pollution Works Regulations 1999

Further information

WHO-classification: III (Slightly hazardous)

SECTION 16: OTHER INFORMATION

Text of the hazard statements mentioned in Section 3

EUH450	Can cause long-lasting and diffuse contamination of water resources.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H310	Fatal in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H330	Fatal if inhaled.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Abbreviations and acronyms

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute toxicity estimate
CAS-Nr.	Chemical Abstracts Service number
Conc.	Concentration
EC-No.	European community number
ECx	Effective concentration to x %
EH40 WEL	Worker Exposure Limit
EINECS	European inventory of existing commercial substances

ELINCS	European list of notified chemical substances
EN	European Standard
EU	European Union
IATA	International Air Transport Association
IBC	International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (IBC Code)
ICx	Inhibition concentration to x %
IMDG	International Maritime Dangerous Goods
LCx	Lethal concentration to x %
LDx	Lethal dose to x %
LOEC/LOEL	Lowest observed effect concentration/level
MARPOL	MARPOL: International Convention for the prevention of marine pollution from ships
N.O.S.	Not otherwise specified
NOEC/NOEL	No observed effect concentration/level
OECD	Organization for Economic Co-operation and Development
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SI	Statutory Instrument
TWA	Time weighted average
UN	United Nations
WHO	World health organisation

The above information is intended to give general health and safety guidance on the storage and transport of the product.
It is not intended to apply to the use of the product for which purposes the product label and any appropriate technical usage literature available should be consulted and any relevant licenses, consents or approvals complied with.
The requirements or recommendations of any relevant site or working procedure, system or policy in force or arising from any risk assessment involving the substance or product should take precedence over any of the guidance contained in this safety data sheet where there is a difference in the information given.
The information provided in this safety data sheet is accurate at the date of publication and will be updated as and when appropriate.
No liability will be accepted for any injury, loss or damage resulting from any failure to take account of information or advice contained in this safety data sheet.

Changes since the last version are highlighted in the margin. This version replaces all previous versions.