Safety data sheet
according to Regulation (EC) No 1907/2006, Annex II

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

1.1 Product identifier

Torero
350 g/l Metamitron CAS 41394-05-2
150 g/l Ethofumesat CAS 26225-79-6

1.2 Relevant identified uses of the substance or mixture and uses advised against
Relevant identified uses of the substance or mixture:
Herbicide
Uses advised against:
Not applicable

1.3 Details of the supplier of the safety data sheet
Adama Agricultural Solutions UK Ltd, Unit 15, Thatcham Business Village Colthrop Way, Thatcham Berkshire RG19 4LW, UK
Telephone: 01635 860555, Fax: 01635 861555
ukenquiries@adama.com

Qualified person's e-mail address: info@chemical-check.de, k.schnurbusch@chemical-check.de Please DO NOT use for requesting Safety Data Sheets.

1.4 Emergency telephone
Emergency information services / official advisory body:
National Chemical Emergency Centre (UK): 01865 407333 (24 hours)
Telephone number of the company in case of emergencies:
Tel.: --

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
2.1.1 Classification according to Regulation (EC) 1272/2008 (CLP)

Hazard class	Hazard category	Hazard statement
Aquatic Chronic	2	H411-Toxic to aquatic life with long lasting effects.

2.1.2 Classification according to Directives 67/548/EEC and 1999/45/EC (including amendments)
N, Dangerous for the environment, R51/53

2.2 Label elements

2.2.1 Labeling according to Regulation (EC) 1272/2008 (CLP)

Hazard statement

H411-Toxic to aquatic life with long lasting effects.

P102-Keep out of reach of children.
P501-Dispose of contents/container to special waste collection point.

EUH401-To avoid risks to human health and the environment, comply with the instructions for use.

SP 1 Do not contaminate water with the product or its container.

2.3 Other hazards

The mixture does not contain any vPvB substance (vPvB = very persistent, very bioaccumulative) or is not included under XIII of the regulation (EC) 1907/2006.
The mixture does not contain any PBT substance (PBT = persistent, bioaccumulative, toxic) or is not included under XIII of the regulation (EC) 1907/2006.

SECTION 3: Composition/information on ingredients

Formulation:
Suspension concentrate

3.1 Substance

n.a.

3.2 Mixture

4-amino-3-methyl-6-phenyl-1,2,4-triazin-5-one	
Registration number (REACH)	--
Index	613-129-00-8
EINECS, ELINCS, NLP	255-349-3
CAS	CAS 41394-05-2
content %	30,7
Classification according to Directive 67/548/EEC	Harmful, Xn, R22 Dangerous for the environment, N, R50

Classification according to Regulation (EC) 1272/2008 (CLP)	Acute Tox. 4, H302 Aquatic Acute 1, H400 (M=1)

Ethofumesate (ISO)	
Registration number (REACH)	--
Index	607-314-00-2
EINECS, ELINCS, NLP	247-525-3
CAS	CAS 26225-79-6
content %	13,2
Classification according to Directive 67/548/EEC	Dangerous for the environment, N, R51 Dangerous for the environment, R53
Classification according to Regulation (EC) 1272/2008 (CLP)	Aquatic Chronic 2, H411

For the text of the R-phrases / H-phrases and classification codes (GHS/CLP), see Section 16.
The substances named in this section are given with their actual, appropriate classification!
For substances that are listed in appendix VI, table 3.1/3.2 of the regulation (EC) no. 1272/2008 (CLP regulation) this means that all notes that may be given here for the named classification have been taken into account.

SECTION 4: First aid measures

4.1 Description of first aid measures

Inhalation

Remove person from danger area.
Supply person with fresh air and consult doctor according to symptoms.

Skin contact

Wash thoroughly using copious water - remove contaminated clothing immediately. If skin irritation occurs (redness etc.), consult doctor.

Eye contact

Wash thoroughly for several minutes using copious water. Seek medical help if necessary.

Ingestion

Give copious water to drink - consult doctor immediately.
Keep Data Sheet available.

4.2 Most important symptoms and effects, both acute and delayed

If applicable delayed symptoms and effects can be found in section 11 and the absorption route in section 4.1.
In certain cases, the symptoms of poisoning may only appear after an extended period / after several hours.

4.3 Indication of any immediate medical attention and special treatment needed

n.c.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Adapt to the nature and extent of fire.

Unsuitable extinguishing media

n.d.a.

5.2 Special hazards arising from the substance or mixture

In case of fire the following can develop:
Vapours hazardous to health
Organic decomposition products
Oxides of carbon
Oxides of nitrogen
Oxides of sulphur

5.3 Advice for firefighters

Protective respirator with independent air supply.
According to size of fire
Full protection, if necessary
Dispose of contaminated extinction water according to official regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure sufficient supply of air.
Avoid inhalation, and contact with eyes or skin.

6.2 Environmental precautions

If leakage occurs, dam up.
Resolve leaks if this possible without risk.
Prevent surface and ground-water infiltration, as well as ground penetration.
Prevent from entering drainage system.
If accidental entry into drainage system occurs, inform responsible authorities.

6.3 Methods and material for containment and cleaning up

Soak up with absorbent material (e.g. universal binding agent) and dispose of according to Section 13.

6.4 Reference to other sections

For personal protective equipment see Section 8 and for disposal instructions see Section 13.

SECTION 7: Handling and storage

In addition to information given in this section, relevant information can also be found in section 8 and 6.1.

7.1 Precautions for safe handling

7.1.1 General recommendations

Ensure good ventilation.
Eating, drinking, smoking, as well as food-storage, is prohibited in work-room.
Observe directions on label and instructions for use.
Use working methods according to operating instructions.

7.1.2 Notes on general hygiene measures at the workplace

General hygiene measures for the handling of chemicals are applicable.
Wash hands before breaks and at end of work.
Keep away from food, drink and animal feedingstuffs.
Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

7.2 Conditions for safe storage, including any incompatibilities

Keep out of access to unauthorised individuals.
Observe regulations for keeping separated.
Store product closed and only in original packing.
Effects of light as well as warmth.
Only store at temperatures from -5°C to 35°C.

7.3 Specific end use(s)

No information available at present.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

GB Chemical Name	Propane-1,2-diol	Content %:
WEL-TWA: 150 ppm (474 mg/m3) (total, vapour and particulates), 10 mg/m3 (particulates)	WEL-STEL: ---	---
BMGV: ---	Other information: ---	

GB WEL-TWA = Workplace Exposure Limit - Long-term exposure limit (8-hour TWA (= time weighted average) reference period) EH40. AGW = "Arbeitsplatzgrenzwert" (workplace limit value, Germany). | WEL-STEL = Workplace Exposure Limit - Short-term exposure limit (15-minute reference period). | BMGV = Biological monitoring guidance value EH40. BGW = "Biologischer Grenzwert" (biological limit value, Germany) | Other information: Sen = Capable of causing occupational asthma. Sk = Can be absorbed through skin. Carc = Capable of causing cancer and/or heritable genetic damage.
** = The exposure limit for this substance is repealed through the TRGS 900 (Germany) of January 2006 with the goal of revision.

Propane-1,2-diol

Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	168	mg/m3	
Workers / employees	Human - inhalation	Long term, local effects	DNEL	10	mg/m3	
Consumer	Human - dermal	Long term, systemic effects	DNEL	213	mg/kg	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	50	mg/m3	
Consumer	Human - oral	Long term, systemic effects	DNEL	85	mg/kg	
Consumer	Human - inhalation	Long term, local effects	DNEL	10	mg/m3	
	Environment - freshwater		PNEC	260	mg/l	
	Environment - marine		PNEC	26	mg/l	
	Environment - sewage treatment plant		PNEC	2000	mg/l	
	Environment - sediment, freshwater		PNEC	572	mg/kg	

	Environment - sediment, marine		PNEC	57,2	mg/kg	
	Environment - soil		PNEC	50	mg/kg	
	Environment - water, sporadic (intermittent) release		PNEC	183	mg/l	

8.2 Exposure controls
8.2.1 Appropriate engineering controls

Ensure good ventilation. This can be achieved by local suction or general air extraction.
If this is insufficient to maintain the concentration under the WEL or AGW values, suitable breathing protection should be worn.
Applies only if maximum permissible exposure values are listed here.

8.2.2 Individual protection measures, such as personal protective equipment
General hygiene measures for the handling of chemicals are applicable.
Wash hands before breaks and at end of work.
Keep away from food, drink and animal feedingstuffs.
Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

Eye/face protection:
Tight fitting protective goggles (EN 166) with side protection, with danger of projections.

Skin protection - Hand protection:
Protective Neoprene® / polychloroprene gloves (EN 374).
Protective nitrile gloves (EN 374)
Protective hand cream recommended.

Skin protection - Other:
Protective working garments (e.g. safety shoes EN ISO 20345, long-sleeved protective working garments)

Respiratory protection:
Normally not necessary.
If fumes build up, use suitable breathing mask.
Filter A P 3 (EN 14387), code colour brown, white

Thermal hazards:
If applicable, these are included in the individual protective measures (eye/face protection, skin protection, respiratory protection).

Additional information on hand protection - No tests have been performed.
In the case of mixtures, the selection has been made according to the knowledge available and the information about the contents.
Selection of materials derived from glove manufacturer's indications.
Final selection of glove material must be made taking the breakthrough times, permeation rates and degradation into account.
Selection of a suitable glove depends not only on the material but also on other quality characteristics and varies from manufacturer to manufacturer.
In the case of mixtures, the resistance of glove materials cannot be predicted and must therefore be tested before use.
The exact breakthrough time of the glove material can be requested from the protective glove manufacturer and must be observed.

8.2.3 Environmental exposure controls

No information available at present.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state:	Liquid, Viscous
Colour:	Beige, White
Odour:	Slightly
Odour threshold:	Not determined
pH-value:	6,42 (1 %, CIPAC MT 75.3)
Melting point/freezing point:	Not determined
Initial boiling point and boiling range:	Not determined
Flash point:	104 °C (DIN EN 22719 (Pensky-Martens, closed cup))
Evaporation rate:	Not determined
Flammability (solid, gas):	Not determined
Lower explosive limit:	n.a.
Upper explosive limit:	n.a.
Vapour pressure:	0,23 mPa (20°C, Ethofumesate (ISO))
Vapour density (air = 1):	Not determined
Density:	1,14 g/ml (20°C)
Bulk density:	Not determined
Solubility(ies):	Not determined
Water solubility:	Dispersion
Partition coefficient (n-octanol/water):	0,85 (21°C, OECD 107 (Partition Coefficient (n-octanol/water) - Shake Flask Method), Metamitron, (log Pow))
Partition coefficient (n-octanol/water):	2,69 (OECD 107 (Partition Coefficient (n-octanol/water) - Shake Flask Method), Ethofumesate (ISO), (log Pow))
Auto-ignition temperature:	485 °C (DIN 51794)
Decomposition temperature:	Not determined
Viscosity:	134,1 mPas (20°C, OECD 114 (Viscosity of Liquids))
Viscosity:	116,9 mm2/s (20°C, OECD 114 (Viscosity of Liquids))
Explosive properties:	Not determined
Oxidising properties:	No

9.2 Other information

Miscibility:	Not determined
Fat solubility / solvent:	Not determined
Conductivity:	Not determined
Surface tension:	39,3 mN/m (90 %, 20°C, Regulation (EC) 440/2008 A.5. (SURFACE TENSION))
Solvents content:	Not determined

SECTION 10: Stability and reactivity

10.1 Reactivity

Not to be expected
The product has not been tested.

10.2 Chemical stability

Stable with proper storage and handling.

10.3 Possibility of hazardous reactions

No dangerous reactions are known.

10.4 Conditions to avoid

See also section 7.
Protect from frost.

10.5 Incompatible materials

See also section 7.
Avoid contact with other chemicals.
Avoid contact with strong oxidizing agents.

10.6 Hazardous decomposition products

See also section 5.2
No decomposition when used as directed.

SECTION 11: Toxicological information

Possibly more information on health effects, see Section 2.1 (classification).
Classification based on toxicological analyses.

Torero						
Toxicity/effect	**Endpoint**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
Acute toxicity, by oral route:	LD50	>2000	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	
Acute toxicity, by dermal route:	LD50	>4000	mg/kg	Rat	OECD 402 (Acute Dermal Toxicity)	
Acute toxicity, by inhalation:						n.d.a.
Skin corrosion/irritation:				Rat	OECD 404 (Acute Dermal Irritation/Corrosion)	Not irritant
Serious eye damage/irritation:					OECD 405 (Acute Eye Irritation/Corrosion)	Mild irritant
Respiratory or skin sensitisation:					OECD 406 (Skin Sensitisation)	No
Germ cell mutagenicity:						n.d.a.
Carcinogenicity:						n.d.a.
Reproductive toxicity:						n.d.a.
Specific target organ toxicity - single exposure (STOT-SE):						n.d.a.
Specific target organ toxicity - repeated exposure (STOT-RE):						n.d.a.
Aspiration hazard:						n.d.a.
Respiratory tract irritation:						n.d.a.
Repeated dose toxicity:						n.d.a.
Symptoms:						n.d.a.

Other information:						Classification based on toxicological analyses.

4-amino-3-methyl-6-phenyl-1,2,4-triazin-5-one

Toxicity/effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	1183	mg/kg	Rat		Male
Acute toxicity, by oral route:	LD50	1482	mg/kg	Rat		Female
Acute toxicity, by dermal route:	LD50	>4000	mg/kg	Rat	OECD 402 (Acute Dermal Toxicity)	
Acute toxicity, by inhalation:	LC50	>1,878	mg/l/4h	Rat	OECD 403 (Acute Inhalation Toxicity)	Maximum achievable concentration.
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Not irritant
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Not irritant
Respiratory or skin sensitisation:				Guinea pig	OECD 406 (Skin Sensitisation)	Not sensitizising
Germ cell mutagenicity:						Negative
Carcinogenicity:	NOAEL	4,9	mg/kg	Rat		Male(2y)
Carcinogenicity:	NOAEL	6,0	mg/kg bw/d	Rat		Female(2y)
Reproductive toxicity:	NOAEL	3,9	mg/kg bw/d	Rat		(2 generation)
Symptoms:						breathing difficulties, headaches, gastrointestinal disturbances, dizziness, nausea
Specific target organ toxicity - single exposure (STOT-SE), inhalative:				Rabbit		Not irritant, Target organ(s): respiratory organs
Other information:	ADI	0,025	mg/kg bw/d			

Ethofumesate (ISO)

Toxicity/effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>7500	mg/kg	Rat		
Acute toxicity, by dermal route:	LD50	>2000	mg/kg	Rabbit		
Acute toxicity, by dermal route:	LD50	>5000	mg/kg	Rat		
Acute toxicity, by inhalation:	LD50	>160	mg/m3/4h	Rat		
Skin corrosion/irritation:				Rabbit		Not irritant

Serious eye damage/irritation:				Rabbit		Not irritant
Respiratory or skin sensitisation:				Guinea pig		No (skin contact)
Germ cell mutagenicity:						Negative
Carcinogenicity:	NOAEL	8,3	mg/kg/d			100ppm (oral)
Reproductive toxicity:	NOAEL	1000	mg/kg/d	Rat		
Reproductive toxicity:	NOAEL	1000	mg/kg/d	Rabbit		
Reproductive toxicity:	NOAEL	5	mg/kg/d	Rat		100ppm
Repeated dose toxicity:	NOAEL	28	d	Rat		200ppm - 10mg/kg/d (oral)
Repeated dose toxicity:	NOAEL	90	d	Rat		200ppm - 10mg/kg/d (oral)
Symptoms:						ataxia, breathing difficulties, headaches, gastrointestinal disturbances, dizziness, nausea
Other information:	ADI	0,4	mg/kg			

Propane-1,2-diol

Toxicity/effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>2000	mg/kg	Rat		
Acute toxicity, by dermal route:	LD50	>2000	mg/kg	Rabbit		
Acute toxicity, by inhalation:	LC50	317,042	mg/l/2h	Rabbit		
Skin corrosion/irritation:				Rabbit	(Draize-Test)	Not irritant
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Not irritant
Respiratory or skin sensitisation:				Guinea pig		Not sensitizising
Respiratory or skin sensitisation:				Human being		Not sensitizising
Germ cell mutagenicity:					OECD 471 (Bacterial Reverse Mutation Test)	Negative
Germ cell mutagenicity:					OECD 476 (In Vitro Mammalian Cell Gene Mutation Test)	Negative
Symptoms:						eyes, reddened, mucous membrane irritation, dizziness, watering eyes, nausea

SECTION 12: Ecological information

Possibly more information on environmental effects, see Section 2.1 (classification).
Classification based on toxicological analyses.

Torero							
Toxicity/effect	**Endpoint**	**Time**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
Toxicity to fish:	LC50	96h	141	mg/l		OECD 203 (Fish, Acute Toxicity Test)	
Toxicity to fish:	NOEC/NOEL		12,5	mg/l		OECD 203 (Fish, Acute Toxicity Test)	
Toxicity to daphnia:	EC50	48h	62,4	mg/l		OECD 202 (Daphnia sp. Acute Immobilisation Test)	
Toxicity to daphnia:	NOEC/NOEL		22,3	mg/l		OECD 202 (Daphnia sp. Acute Immobilisation Test)	
Toxicity to daphnia:	LOEC/LOEL		40,1	mg/l		OECD 202 (Daphnia sp. Acute Immobilisation Test)	
Toxicity to algae:	EbC50	72h	2,83	mg/l		OECD 201 (Alga, Growth Inhibition Test)	
Toxicity to algae:	ErC50	72h	6,53	mg/l		OECD 201 (Alga, Growth Inhibition Test)	
Toxicity to algae:	NOEC/NOEL		2,92	mg/l		OECD 201 (Alga, Growth Inhibition Test)	
Toxicity to algae:	LOEC/LOEL		5,25	mg/l		OECD 201 (Alga, Growth Inhibition Test)	
Persistence and degradability:							n.d.a.
Bioaccumulative potential:							n.d.a.
Mobility in soil:							n.d.a.
Results of PBT and vPvB assessment							n.d.a.
Other adverse effects:							n.d.a.

4-amino-3-methyl-6-phenyl-1,2,4-triazin-5-one							
Toxicity/effect	**Endpoint**	**Time**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**

Toxicity to fish:	LC50	96h	>200	mg/l	Oncorhynchus mykiss	OECD 203 (Fish, Acute Toxicity Test)	
Toxicity to fish:	LC50	96h	194	mg/l	Cyprinus caprio		
Toxicity to daphnia:	EC50	48h	6,7	mg/l	Daphnia magna		
Toxicity to algae:	EC50	72h	0,82	mg/l	Pseudokirchneriella subcapitata	OECD 201 (Alga, Growth Inhibition Test)	
Toxicity to algae:	EC50	72h	1,8	mg/l	Chlorella vulgaris		
Persistence and degradability:		28d	>70	%			
Persistence and degradability:	DT50		10,8-11,4	d			(pH 8) (20°C)
Bioaccumulative potential:	Log Pow		0,85			OECD 107 (Partition Coefficient (n-octanol/water) - Shake Flask Method)	(21°C)
Mobility in soil:	Koc		86,4-122,3				
Toxicity to birds:	LD50		1302	mg/kg			
Toxicity to insects:	LD50		>97,2	µg/bee		OECD 213 (Honeybees, Acute Oral Toxicity Test)	

Ethofumesate (ISO)

Toxicity/effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
Toxicity to fish:	LC50	96h	22	mg/l	Leuciscus idus		
Toxicity to fish:	LC50	96h	26,5	mg/l	Oncorhynchus mykiss		
Toxicity to fish:	LC50	21d	18,8	mg/l	Oncorhynchus mykiss		
Toxicity to fish:	NOEC/NOEL		0,83	mg/l	Oncorhynchus mykiss		
Toxicity to fish:	NOEC/NOEL		9,3	mg/l	Leuciscus idus		
Toxicity to fish:	NOEC/NOEL		9,7	mg/l	Oncorhynchus mykiss		
Toxicity to daphnia:	EC50	48h	28,1	mg/l	Daphnia magna		
Toxicity to daphnia:	NOEC/NOEL		1,0	mg/l			
Toxicity to daphnia:	NOEC/NOEL		13	mg/l			
Toxicity to daphnia:	LOEC/LOEL	21d	3,2	mg/l	Daphnia magna		
Toxicity to algae:	EC50	72h	10	mg/l	Scenedesmus subspicatus		

Persistence and degradability:			<70	%			
Persistence and degradability:	DT50		10-122	d			(lab)
Persistence and degradability:	DT50		31	h			Active substance non-resistant to UV light.
Persistence and degradability:	DT50		84-407	d			(field)
Mobility in soil:	Koc		203				Low

Propane-1,2-diol							
Toxicity/effect	**Endpoint**	**Time**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
Toxicity to fish:	LC50	96h	>1000	mg/l	Pimephales promelas	OECD 203 (Fish, Acute Toxicity Test)	
Toxicity to daphnia:	EC50	48h	>1000	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
Toxicity to algae:	EC50	72h	>1000	mg/l	Selenastrum capricornutum	OECD 201 (Alga, Growth Inhibition Test)	
Persistence and degradability:		28d	81	%		OECD 301 F (Ready Biodegradability - Manometric Respirometry Test)	
Persistence and degradability:		28d	87-92	%		OECD 301 C (Ready Biodegradability - Modified MITI Test (I))	
Bioaccumulative potential:	BCF		<100				
Results of PBT and vPvB assessment							n.a.
Toxicity to bacteria:	EC50	3h	>1000	mg/l	activated sludge		
Toxicity to bacteria:	IC50	30min	>1000	mg/l	activated sludge	OECD 209 (Activated Sludge, Respiration Inhibition Test (Carbon and Ammonium Oxidation))	
Other information:	COD		1,585	mg/g			
Water solubility:							Mixable

SECTION 13: Disposal considerations

13.1 Waste treatment methods

For the substance / mixture / residual amounts

EC disposal code no.:
The waste codes are recommendations based on the scheduled use of this product.
Owing to the user's specific conditions for use and disposal, other waste codes may be allocated under certain circumstances. (2001/118/EC, 2001/119/EC, 2001/573/EC)
02 01 08 agrochemical waste containing dangerous substances
20 01 19 pesticides
Recommendation:
Pay attention to local and national official regulations
E.g. suitable incineration plant.

For contaminated packing material

Pay attention to local and national official regulations
Empty container completely.
Dispose of packaging that cannot be cleaned in the same manner as the substance.

SECTION 14: Transport information

General statements

UN number: 3082

Transport by road/by rail (ADR/RID)

UN proper shipping name:
UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (ETHOFUMESATE,METAMITRON)

Transport hazard class(es):	9
Packing group:	III
Classification code:	M6
LQ (ADR 2013):	5 L
LQ (ADR 2009):	7
Environmental hazards:	environmentally hazardous
Tunnel restriction code:	E

Transport by sea (IMDG-code)

UN proper shipping name:
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (ETHOFUMESATE,METAMITRON)

Transport hazard class(es):	9
Packing group:	III
EmS:	F-A, S-F
Marine Pollutant:	Yes
Environmental hazards:	environmentally hazardous

Transport by air (IATA)

UN proper shipping name:
Environmentally hazardous substance, liquid, n.o.s. (ETHOFUMESATE,METAMITRON)
Transport hazard class(es): 9

Packing group:	III
Environmental hazards:	environmentally hazardous

Special precautions for user
Persons employed in transporting dangerous goods must be trained.
All persons involved in transporting must observe safety regulations.
Precautions must be taken to prevent damage.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Freighted as packaged goods rather than in bulk, therefore not applicable.
Minimum amount regulations have not been taken into account.
Danger code and packing code on request.
Comply with special provisions.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
National rules/regulation for the compliance with maximum quantities with regard to phosphates and or phosphorous compounds must be observed and complied with.
For classification and labelling see Section 2.
Observe restrictions:
Comply with trade association/occupational health regulations.
Observe plant protection medium law.

15.2 Chemical safety assessment
A chemical safety assessment is not provided for mixtures.

SECTION 16: Other information

These details refer to the product as it is delivered.

Revised sections:	n.a.
ID:	FSG-01095-H

Classification and processes used to derive the classification of the mixture in accordance with the ordinance (EG) 1272/2008 (CLP):

Classification in accordance with regulation (EC) No. 1272/2008 (CLP)	Evaluation method used
Aquatic Chronic 2, H411	Classification based on toxicological analyses.

The following phrases represent the posted R phrases / H phrases, Hazard Class and Risk Category Code (GHS/CLP) of the product and the constituents (specified in Section 2 and 3).
22 Harmful if swallowed.
50 Very toxic to aquatic organisms.
51 Toxic to aquatic organisms.

51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
53 May cause long-term adverse effects in the aquatic environment.
H302 Harmful if swallowed.
H400 Very toxic to aquatic life.
H411 Toxic to aquatic life with long lasting effects.

Aquatic Chronic — Hazardous to the aquatic environment - chronic
Acute Tox. — Acute toxicity - oral
Aquatic Acute — Hazardous to the aquatic environment - acute

Any abbreviations and acronyms used in this document:

AC Article Categories
acc., acc. to according, according to
ACGIH American Conference of Governmental Industrial Hygienists
ADR Accord européen relatif au transport international des marchandises Dangereuses par Route (= European Agreement concerning the International Carriage of Dangerous Goods by Road)
AOEL Acceptable Operator Exposure Level
AOX Adsorbable organic halogen compounds
approx. approximately
Art., Art. no. Article number
ATE Acute Toxicity Estimate according to Regulation (EC) 1272/2008 (CLP)
BAM Bundesanstalt für Materialforschung und -prüfung (Federal Institute for Materials Research and Testing, Germany)
BAuA Bundesanstalt für Arbeitsschutz und Arbeitsmedizin (= Federal Institute for Occupational Health and Safety, Germany)
BCF Bioconcentration factor
BGV Berufsgenossenschaftliche Vorschrift (= Accident Prevention Regulation)
BHT Butylhydroxytoluol (= 2,6-Di-t-butyl-4-methyl-phenol)
BMGV Biological monitoring guidance value (EH40, UK)
BOD Biochemical oxygen demand
BSEF Bromine Science and Environmental Forum
bw body weight
CAS Chemical Abstracts Service
CEC Coordinating European Council for the Development of Performance Tests for Fuels, Lubricants and Other Fluids
CESIO Comité Européen des Agents de Surface et de leurs Intermédiaires Organiques
CIPAC Collaborative International Pesticides Analytical Council
CLP Classification, Labelling and Packaging (REGULATION (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures)
CMR carcinogenic, mutagenic, reproductive toxic
COD Chemical oxygen demand
CTFA Cosmetic, Toiletry, and Fragrance Association
DMEL Derived Minimum Effect Level
DNEL Derived No Effect Level
DOC Dissolved organic carbon
DT50 Dwell Time - 50% reduction of start concentration
DVS Deutscher Verband für Schweißen und verwandte Verfahren e.V. (= German Association for Welding and Allied Processes)
dw dry weight
e.g. for example (abbreviation of Latin 'exempli gratia'), for instance

EC European Community
ECHA European Chemicals Agency
EEA European Economic Area
EEC European Economic Community
EINECS European Inventory of Existing Commercial Chemical Substances
ELINCS European List of Notified Chemical Substances
EN European Norms
EPA United States Environmental Protection Agency (United States of America)
ERC Environmental Release Categories
ES Exposure scenario
etc. et cetera
EU European Union
EWC European Waste Catalogue
Fax. Fax number
gen. general
GHS Globally Harmonized System of Classification and Labelling of Chemicals
GWP Global warming potential
HET-CAM Hen's Egg Test - Chorionallantoic Membrane
HGWP Halocarbon Global Warming Potential
IARC International Agency for Research on Cancer
IATA International Air Transport Association
IBC Intermediate Bulk Container
IBC (Code) International Bulk Chemical (Code)
IC Inhibitory concentration
IMDG-code International Maritime Code for Dangerous Goods
incl. including, inclusive
IUCLID International Uniform ChemicaL Information Database
LC lethal concentration
LC50 lethal concentration 50 percent kill
LCLo lowest published lethal concentration
LD Lethal Dose of a chemical
LD50 Lethal Dose, 50% kill
LDLo Lethal Dose Low
LOAEL Lowest Observed Adverse Effect Level
LOEC Lowest Observed Effect Concentration
LOEL Lowest Observed Effect Level
LQ Limited Quantities
MARPOL International Convention for the Prevention of Marine Pollution from Ships
n.a. not applicable
n.av. not available
n.c. not checked
n.d.a. no data available
NIOSH National Institute of Occupational Safety and Health (United States of America)
NOAEC No Observed Adverse Effective Concentration
NOAEL No Observed Adverse Effect Level
NOEC No Observed Effect Concentration
NOEL No Observed Effect Level
ODP Ozone Depletion Potential
OECD Organisation for Economic Co-operation and Development

org. organic
PAH polycyclic aromatic hydrocarbon
PBT persistent, bioaccumulative and toxic
PC Chemical product category
PE Polyethylene
PNEC Predicted No Effect Concentration
POCP Photochemical ozone creation potential
ppm parts per million
PROC Process category
PTFE Polytetrafluorethylene
REACH Registration, Evaluation, Authorisation and Restriction of Chemicals (REGULATION (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals)
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RID Règlement concernant le transport International ferroviaire de marchandises Dangereuses (= Regulation concerning the International Carriage of Dangerous Goods by Rail)
SADT Self-Accelerating Decomposition Temperature
SAR Structure Activity Relationship
SU Sector of use
SVHC Substances of Very High Concern
Tel. Telephone
ThOD Theoretical oxygen demand
TOC Total organic carbon
TRGS Technische Regeln für Gefahrstoffe (=Technical Regulations for Hazardous Substances)
UN RTDG United Nations Recommendations on the Transport of Dangerous Goods
VbF Verordnung über brennbare Flüssigkeiten (= Regulation for flammable liquids (Austria))
VOC Volatile organic compounds
vPvB very persistent and very bioaccumulative
WEL-TWA, WEL-STEL WEL-TWA = Workplace Exposure Limit - Long-term exposure limit (8-hour TWA (= time weighted average) reference period), WEL-STEL = Workplace Exposure Limit - Short-term exposure limit (15-minute reference period) (EH40, UK).
WHO World Health Organization
wwt wet weight

The statements made here should describe the product with regard to the necessary safety precautions - they are not meant to guarantee definite characteristics - but they are based on our present up-to-date knowledge.
No responsibility.
These statements were made by:

Chemical Check GmbH, Chemical Check Platz 1-7, D-32839 Steinheim, Tel.: +49 5233 94 17 0, Fax: +49 5233 94 17 90