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

Revised on / Version: 20.03.2013 / 0001

Replaces revision of / Version: 20.03.2013 / 0001

Valid from: 20.03.2013 PDF print date: 15.08.2014

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

1.1 Product identifier

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400 g/l Pendimethalin CAS 40487-42-1

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 Acute 1 H400-Very toxic to aquatic life.

Aquatic Chronic 1 H410-Very 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, R50/53



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2.2 Label elements

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



Hazard statement

H410-Very toxic to aquatic life with long lasting effects.

P102-Keep out of reach of children.

Disposal

P501-Dispose of contents/container to special waste collection point.

EUH208-Contains Pendimethalin (ISO). May produce an allergic reaction.

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

SP1 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**

Pendimethalin (ISO)	
Registration number (REACH)	
Index	609-042-00-X
EINECS, ELINCS, NLP	254-938-2
CAS	CAS 40487-42-1
content %	30-40

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Classification according to Directive 67/548/EEC	Sensitizising, R43
	Dangerous for the environment, N, R50
	Dangerous for the environment, R53
Classification according to Regulation (EC) 1272/2008 (CLP)	Skin Sens. 1, H317
	Aquatic Acute 1, H400 (M=1)
	Aquatic Chronic 1, H410 (M=1)

Ethoxylated polyaryl phenol	
Registration number (REACH)	
Index	
EINECS, ELINCS, NLP	-
CAS	CAS 99734-09-5
content %	1-10
Classification according to Directive 67/548/EEC	Dangerous for the environment, R52
	Dangerous for the environment, R53
Classification according to Regulation (EC) 1272/2008 (CLP)	Aquatic Chronic 3, H412

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.

If, for example, the note P is applied for a hydrocarbon then this has already been taken into account for the classification named here.

Quote: "Note P - The classification as a carcinogen or mutagen need not apply if it can be shown that the substance contains less than 0.1 % w/w benzene (EINECS No 200-753-7)."

Article 4 of the regulation (EC) no. 1272/2008 (CLP regulation) was also observed and taken into account for the classification named here.

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

Remove polluted, soaked clothing immediately, wash thoroughly with plenty of water and soap, in case of irritation of the skin (flare), consult a doctor.

Eye contact

Remove contact lenses.

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

Ingestion

Rinse the mouth thoroughly with water.

Give copious water to drink - consult doctor immediately.

Keep Data Sheet available.

4.2 Most important symptoms and effects, both acute and delayed

Ingestion of large quantities:





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Liver and kidney damage Sensitive individuals: Allergic reaction possible.

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.

Water jet spray / alcohol resistant foam / CO2 / dry extinguisher

Unsuitable extinguishing media

None known

5.2 Special hazards arising from the substance or mixture

In case of fire the following can develop:

Oxides of carbon

Oxides of sulphur

Oxides of nitrogen

Toxic pyrolysis products.

5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes.

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.

If applicable, caution - risk of slipping

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, sand, diatomaceous earth, sawdust) and dispose of according to Section 13.

Fill the absorbed material into lockable containers.

6.4 Reference to other sections



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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.

Avoid aerosol formation.

Avoid contact with eyes or skin.

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

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.

Only store at temperatures from 0°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

© Chemical Name	Glycerine	Content %:
WEL-TWA: 10 mg/m3 (mist)	WEL-STEL:	
BMGV:	Other information:	

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.

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 has

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



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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 with side protection (EN 166).

Skin protection - Hand protection:

Chemical resistant protective gloves (EN 374).

If applicable

Protective nitrile gloves (EN 374)

Protective Neoprene® / polychloroprene 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.

with formation of mist.

Filter A2 P2 (EN 14387), code colour brown, white

Observe wearing time limitations for respiratory protection equipment.

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: Colour: Odour: Odour threshold: pH-value:

pH-value:

Liquid Brown, Yellow Aromatic, Slightly Not determined 6,6 (CIPAC MT 75.3) 6,4 (1 %, CIPAC MT 75.3)



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Melting point/freezing point:

Initial boiling point and boiling range:

Flash point:

Evaporation rate:

Flammability (solid, gas):

Lower explosive limit: Upper explosive limit:

Vapour pressure:

Vapour density (air = 1):

Density:

Bulk density:

Solubility(ies):

Water solubility:

Partition coefficient (n-octanol/water):

Auto-ignition temperature:

Decomposition temperature:

Viscosity: Explosive properties:

Oxidising properties:

9.2 Other information

Miscibility:

Fat solubility / solvent:

Conductivity:

Surface tension:

Solvents content:

Not determined

Not determined

> 100 °C (Regulation (EC) 440/2008 A.9. (FLASH-POINT), n.a.)

Not determined

n.a.

n.a.

Not determined

Not determined

1,111 g/ml (20°C, Regulation (EC) 440/2008 A.3. (RELATIVE

DENSITY)) Not determined Not determined Suspension

5,2 (Pendimethalin (ISO), pH 7)

390 °C (Regulation (EC) 440/2008 A.15. (AUTO-IGNITION

TEMPERATURE (LIQUIDS AND GASES)))

Not determined

213 mm2/s (OECD 114 (Viscosity of Liquids))

Product is not explosive.

No

Not determined

Not determined

Not determined

38,46 mN/m (0 %, 20°C, Regulation (EC) 440/2008 A.5.

(SURFACE TENSION))

Not determined

SECTION 10: Stability and reactivity

10.1 Reactivity

See also Subsection 10.2 to 10.6.

The product has not been tested.

10.2 Chemical stability

See also Subsection 10.1 to 10.6.

Stable with proper storage and handling.

10.3 Possibility of hazardous reactions

See also Subsection 10.1 to 10.6.

No decomposition if used as intended.

10.4 Conditions to avoid

See also section 7.

10.5 Incompatible materials

See also section 7.

Avoid contact with other chemicals.

Avoid contact with strong oxidizing agents.



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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).

Toxicity/effect	Endpoi	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	nt LD50	>2000	mg/kg	Rat	OECD 423 (Acute	
					Oral Toxicity - Acute Toxic Class Method)	
Acute toxicity, by dermal route:	LD50	>2000	mg/kg	Rat	OECD 402 (Acute Dermal Toxicity)	
Acute toxicity, by inhalation:					Definal Toxicity)	n.d.a.
Skin corrosion/irritation:				Rabbit		Not irritant
Serious eye				Rabbit	OECD 405 (Acute	Not irritant
damage/irritation:					Eye	
-					Irritation/Corrosion)	
Respiratory or skin					OECD 406 (Skin	Not sensitizising
sensitisation:					Sensitisation)	
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 -						n.d.a.
repeated exposure (STOT-RE):						
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 o
						toxicological analyses.

Pendimethalin (ISO)								
Toxicity/effect	Endpoi	Value	Unit	Organism	Test method	Notes		
	nt							
Acute toxicity, by oral route:	LD50	>5000	mg/kg	Rat				
Acute toxicity, by dermal	LD50	>2000	mg/kg	Rabbit				
route:								
Acute toxicity, by inhalation:	LC50	>320	mg/l	Rat				
Skin corrosion/irritation:						Not irritant		
Serious eye				Rabbit		Slightly irritant		
damage/irritation:								





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Respiratory or skin						Yes (skin contact)
sensitisation:						
Respiratory or skin					OECD 406 (Skin	Not sensitizising
sensitisation:					Sensitisation)	
Germ cell mutagenicity:					· ·	Negative
Carcinogenicity:	NOEL	100	mg/kg			Negative
Reproductive toxicity:	NOAEL	250	mg/kg/d	Rat		_
Reproductive toxicity:	NOAEL	250	mg/kg	Rat		(maternal
			bw/d			teratogenicity)
Reproductive toxicity:	NOAEL	60,4 - 90,7	mg/kg/d	Rat		
Other information:						ADI 0,125 mg/kg bw/d

Ethoxylated polyaryl phenol								
Toxicity/effect	Endpoi	Value	Unit	Organism	Test method	Notes		
	nt							
Acute toxicity, by oral route:	LD50	>2000	mg/kg	Rat				
Skin corrosion/irritation:				Rabbit		Not irritant		
Serious eye				Rabbit		Not irritant		
damage/irritation:								
Germ cell mutagenicity:					OECD 471	Negative		
					(Bacterial Reverse			
					Mutation Test)			

Glycerine						
Toxicity/effect	Endpoi	Value	Unit	Organism	Test method	Notes
	nt					
Acute toxicity, by oral route:	LD50	>12600	mg/kg	Rat		
Acute toxicity, by oral route:	LD50	>2000	mg/kg	Rat		
Acute toxicity, by oral route:	LD50	>2000	mg/kg	Rabbit		
Acute toxicity, by oral route:	LD50	>5000	mg/kg	Rat	IUCLID Chem. Data Sheet (ESIS)	
Acute toxicity, by dermal route:	LD50	>10000	mg/kg	Rabbit		
Acute toxicity, by dermal route:	LD50	>5000	mg/kg	Rabbit	IUCLID Chem. Data Sheet (ESIS)	
Skin corrosion/irritation:				Rabbit	IUCLID Chem. Data Sheet (ESIS)	Not irritant
Skin corrosion/irritation:					OECD 404 (Acute Dermal Irritation/Corrosion)	Not irritant
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Not irritant
Serious eye damage/irritation:					OECD 405 (Acute Eye Irritation/Corrosion)	Not irritant
Respiratory or skin sensitisation:				Guinea pig		Not sensitizising





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Germ cell mutagenicity:					OECD 471 (Bacterial Reverse Mutation Test)	Negative
Reproductive toxicity:	NOAEL	2000	mg/kg/d			Negative
Specific target organ toxicity - repeated exposure (STOT-RE):	NOAEL	3,91	mg/l	Rat		14d
Aspiration hazard:						Negative
Symptoms:						abdominal pain, drowsiness, diarrhoea, vomiting, headaches, mucous membrane irritation

SECTION 12: Ecological information

Possibly more information on environmental effects, see Section 2.1 (classification).

Anthem								
Toxicity/effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes	
Toxicity to fish:	LC50	96h	14,7	mg/l		OECD 203		
						(Fish, Acute		
						Toxicity Test)		
Toxicity to daphnia:	EC50	48h	6,55	mg/l		OECD 202		
						(Daphnia sp.		
						Acute		
						Immobilisation		
						Test)		
Toxicity to algae:	EC50	72h	0,026	mg/l		OECD 201		
						(Alga, Growth		
						Inhibition Test)		
Persistence and							n.d.a.	
degradability:								
Bioaccumulative							n.d.a.	
potential:								
Mobility in soil:							n.d.a.	
Results of PBT and							n.d.a.	
vPvB assessment								
Other adverse effects:							n.d.a.	

Pendimethalin (ISO)							
Toxicity/effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
Toxicity to fish:	LC50	96h	0,14	mg/l	Oncorhynchus		
					mykiss		
Toxicity to fish:	LC50	96h	0,199	mg/l	Oncorhynchus		
-					mykiss		
Toxicity to fish:	LC50	96h	0,2	mg/l	Lepomis		
-					macrochirus		





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Toxicity to fish:	LC50	96h	0,707	mg/l	Cyprinus caprio	
Toxicity to daphnia:	LC50	24h	0,52	mg/l	Daphnia magna	
Persistence and						DT50 3-4m
degradability:						
Persistence and	DT50		<21	d		Water
degradability:						
Bioaccumulative	Log Pow		5,18			
potential:						
Mobility in soil:						Kd 2,23 (0,01% o.m.,
						pH6,6) - 1638 (16,9%
						o.m., pH6,8)
Toxicity to insects:			>50	μg/bee		topical

Ethoxylated polyaryl phenol							
Toxicity/effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
Persistence and		28d	16	%		OECD 302 B	
degradability:						(Inherent	
						Biodegradability	
						- Zahn-	
						Wellens/EMPA	
						Test)	
Persistence and		28d	8	%		OECD 301 A	
degradability:						(Ready	
						Biodegradability	
						- DOC Die-	
						Away Test)	

Glycerine							
Toxicity/effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
Toxicity to fish:	LC50	24h	>5000	mg/l	Carassius auratus		References
Toxicity to fish:	LC50	96h	> 5000	mg/l	Carassius auratus		
Toxicity to fish:	LC50	96h	>1000 0	mg/l	Leuciscus idus		
Toxicity to daphnia:	EC50	24h	>1000 0	mg/l	Daphnia magna		
Toxicity to daphnia:	EC50	24h	>1000 0	mg/l	Daphnia magna	IUCLID Chem. Data Sheet (ESIS)	
Toxicity to daphnia:	EC5	72h	3200	mg/l			References
Toxicity to algae:	IC5	7d	>1000 0	mg/l	Scenedesmus quadricauda		
Toxicity to algae:	IC5	7d	>1000 0	mg/l	Selenastrum capricornutum		References



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Persistence and degradability:		14d	63	%		OECD 301 C (Ready Biodegradability - Modified MITI Test (I))	
Persistence and degradability:		14d	63	%		OECD 301 C (Ready Biodegradability - Modified MITI Test (I))	
Bioaccumulative potential:	Log Pow		-1,76				
Results of PBT and vPvB assessment							n.a.
Toxicity to bacteria:	EC5	16h	> 10000	mg/l	Pseudomonas putida		
Other information:	BOD5		0,87	g/g			
Other information:	COD		1,16	g/g			

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

07 04 99 wastes not otherwise specified

20 01 19 pesticides

Recommendation:

Pay attention to local and national official regulations

Implement substance recycling.

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 ENVIRÖNMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (PENDIMETHALIN)





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Transport hazard class(es):

Packing group:

Classification code:

LQ (ADR 2013):

LQ (ADR 2009):

M6

Transport hazard class(es):

9

M6

LQ (ADR 2013):

5 L

CR (ADR 2009):

7

Environmental hazards: environmentally hazardous

Tunnel restriction code:

Transport by sea (IMDG-code)

UN proper shipping name:

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (PENDIMETHALIN)

Transport hazard class(es):

Packing group:

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. (PENDIMETHALIN)
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

For classification and labelling see Section 2.

Observe restrictions: Yes

Comply with trade association/occupational health regulations.

Regulation (EC) No 1907/2006, Annex XVII

VOC 1999/13/EC n.a.

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.

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Observe plant protection medium law.

ID: FSG 01100 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 Acute 1, H400	Classification based on toxicological analyses:
Aquatic Chronic 1, H410	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).

43 May cause sensitization by skin contact.

50 Very toxic to aquatic organisms.

50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

52 Harmful to aquatic organisms.

53 May cause long-term adverse effects in the aquatic environment.

H317 May cause an allergic skin reaction.

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.

Aquatic Chronic — Hazardous to the aquatic environment - chronic Aquatic Acute — Hazardous to the aquatic environment - acute

Skin Sens. — Skin sensitization

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)



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Anthem

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



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Anthem

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

LOAELLowest 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 applicablen.av. not availablen.c. not checkedn.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)

REACH-IT List-No. 9xx-xxx-x No. is automatically assigned, e.g. to pre-registrations without a CAS No. or other numerical identifier. List Numbers do not have any legal significance, rather they are purely technical identifiers for processing a submission via REACH-IT.

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



-(GB)

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Anthem

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:

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