

Page 1 of 15

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

Revised on / Version: 07.12.2012 / 0003

Replaces revision of / Version: 04.05.2011 / 0002

Valid from: 07.12.2012 PDF print date: 01.10.2014 2,4-D amine salt 600 SL

AG-D2-600 SL

# 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

## 2,4-D amine salt 600 SL AG-D2-600 SL

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

Herbicide

Sector of use [SU]:

SU 1 - Agriculture, forestry, fishery

SU 9 - Manufacture of fine chemicals

SU10 - Formulation (mixing) of preparations and/or re-packaging (excluding alloys)

Chemical product category [PC]:

PC19 - Intermediate

PC27 - Plant protection products

Process category [PROC]:

PROC 3 - Use in closed batch process (synthesis or formulation)

PROC 8a - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities

PROC 8b - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities

PROC 9 - Transfer of substance or preparation into small containers (dedicated filling line, including weighing)

PROC11 - Non industrial spraying

PROC14 - Production of preparations or articles by tabletting, compression, extrusion, pelletisation

PROC19 - Hand-mixing with intimate contact and only PPE available

Environmental Release Category [ERC]:

ERC 1 - Manufacture of substances

ERC 2 - Formulation of preparations

ERC10b - Wide dispersive outdoor use of long-life articles and materials with high or intended release (including abrasive processing)

#### Uses advised against:

Not applicable

## 1.3 Details of the supplier of the safety data sheet

ADAMA Manufacturing Poland S.A. ul. Sienkiewicza 4, PL-56 - 120 Brzeg Dolny

Telephone: +48717942235, Fax: +48717943966

biuro\_amp@adama.com,



Page 2 of 15

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

Revised on / Version: 07.12.2012 / 0003

Replaces revision of / Version: 04.05.2011 / 0002

Valid from: 07.12.2012 PDF print date: 01.10.2014 2,4-D amine salt 600 SL AG-D2-600 SL

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:

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Telephone number of the company in case of emergencies:

Tel.: (+48 71) 7942555 or (+4871) 794 24 41 (available 24 h) to PCC Rokita Sa or to the local Fire Fighting Services

#### **SECTION 2: Hazards identification**

#### 2.1 Classification of the substance or mixture

#### 2.1.1 Classification according to Regulation (EC) 1272/2008 (CLP)

Not determined

#### 2.1.2 Classification according to Directives 67/548/EEC and 1999/45/EC (including amendments)

Xn, Harmful, R22

Xi, Irritant, R41

Sensitizising, R43

Dangerous for the environment, R52/53

#### 2.2 Label elements

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

Not determined

## 2.2.2 Labeling according to Directives 67/548/EEC and 1999/45/EC (including amendments)



Symbols: Xn Indications of danger:

Harmful R-phrases:

22 Harmful if swallowed.

41 Risk of serious damage to eyes.

43 May cause sensitization by skin contact.

52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S-phrases:

(2) Keep out of the reach of children.

23 Do not breathe vapour/spray.

26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

35 This material and its container must be disposed of in a safe way.

36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

(46) If swallowed, seek medical advice immediately and show this container or label.



Page 3 of 15

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

Revised on / Version: 07.12.2012 / 0003

Replaces revision of / Version: 04.05.2011 / 0002

Valid from: 07.12.2012 PDF print date: 01.10.2014 2,4-D amine salt 600 SL AG-D2-600 SL

51 Use only in well-ventilated areas.

Additions:

dimethylammonium 2,4-dichlorophenoxyacetate

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

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**

#### 3.1 Substance

## n.a.

3.2 Wilkluie	
dimethylammonium 2,4-dichlorophenoxyacetate	
Registration number (REACH)	01-2119548365-34-XXXX
Index	607-040-00-3
EINECS, ELINCS, NLP	217-915-8
CAS	CAS 2008-39-1
content %	60-62
Classification according to Directive 67/548/EEC	Harmful, Xn, R22
	Irritant, Xi, R41
	Sensitizising, R43
	Dangerous for the environment, N, R51/53
Classification according to Regulation (EC) 1272/2008 (CLP)	Acute Tox. 4, H302
	Eye Dam. 1, H318
	Skin Sens. 1, H317
	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.

ADAMA



Page 4 of 15

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

Revised on / Version: 07.12.2012 / 0003

Replaces revision of / Version: 04.05.2011 / 0002

Valid from: 07.12.2012 PDF print date: 01.10.2014 2,4-D amine salt 600 SL

AG-D2-600 SL

#### 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 - call doctor immediately, have Data Sheet available.

Protect uninjured eye.

Follow-up examination by an ophthalmologist

#### Ingestion

Rinse the mouth thoroughly with water.

Induce vomiting.

Call doctor immediately - have 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

Medical supervision necessary due to possibility of delayed reaction.

Symptomatic treatment

Antidote:

None known

#### **SECTION 5: Firefighting measures**

## 5.1 Extinguishing media

## Suitable extinguishing media

Adapt to the nature and extent of fire. Water jet spray/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 nitrogen

Phosgene

Hydrogen chloride

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

Cool container at risk with water.

Dispose of contaminated extinction water according to official regulations.



Page 5 of 15

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

Revised on / Version: 07.12.2012 / 0003 Replaces revision of / Version: 04.05.2011 / 0002

Valid from: 07.12.2012 PDF print date: 01.10.2014 2,4-D amine salt 600 SL

AG-D2-600 SL

#### **SECTION 6: Accidental release measures**

#### 6.1 Personal precautions, protective equipment and emergency procedures

Ensure sufficient supply of air. Avoid 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.

Flush residue using copious water.

#### 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

Avoid aerosol formation.

Ensure good ventilation.

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

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.

Store product closed and only in original packing.

Not to be stored in gangways or stair wells.

Protect from direct sunlight and warming.

Only store at temperatures from 0°C to 30°C.

#### 7.3 Specific end use(s)



Page 6 of 15

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

Revised on / Version: 07.12.2012 / 0003

Replaces revision of / Version: 04.05.2011 / 0002

Valid from: 07.12.2012 PDF print date: 01.10.2014 2,4-D amine salt 600 SL AG-D2-600 SL

No information available at present.

## **SECTION 8: Exposure controls/personal protection**

#### 8.1 Control parameters

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#### 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 with side protection (EN 166).

If applicable

Face protection (EN 166)

Skin protection - Hand protection:

Chemical resistant protective gloves (EN 374).

Recommended

Protective nitrile gloves (EN 374)

Permeation time (penetration time) in minutes:

n.d.a.

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:

Not applicable



Page 7 of 15

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

Revised on / Version: 07.12.2012 / 0003

Replaces revision of / Version: 04.05.2011 / 0002

Valid from: 07.12.2012 PDF print date: 01.10.2014 2,4-D amine salt 600 SL

AG-D2-600 SL

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

Colour: Clear, Yellow Odour: Slightly, Characteristic

Odour threshold: Not determined pH-value: 6 (1 %)

Melting point/freezing point:

Not determined

Initial boiling point and boiling range: ~ 100 °C
Flash point: n.a.

Evaporation rate: Not determined Flammability (solid, gas): n.a.

Flammability (solid, gas):

Lower explosive limit:

upper explosive limit:

n.a.

n.a.

Vapour pressure:

Vapour density (air = 1):

Not determined

Not determined

Density: 1,204 g/ml (20°C)

Bulk density: n.a.
Solubility(ies): Not determined

Water solubility: Soluble

Partition coefficient (n-octanol/water):

2,7 (25°C, 2,4-D (ISO), (pH 1))

Partition coefficient (n-octanol/water):

0,18 (25°C, 2,4-D (ISO), (pH 5))

Partition coefficient (n-octanol/water):

-0,83 (25°C, 2,4-D (ISO), (pH 7))

Partition coefficient (n-octanol/water):

-0,83 (25°C, 2,4-D (ISO), (pH 7))

Partition coefficient (n-octanol/water):

-1,01 (25°C, 2,4-D (ISO), (pH 9))

Auto-ignition temperature:

Not determined

Decomposition temperature:

Viscosity:

Not determined

19,996 mm2/s (20°C)

8,415 mm2/s (40°C)

24,075 mPas (20°C)

Viscosity:

10,037 mPas (40°C)

Explosive properties: Product is not explosive.

Oxidising properties:

#### 9.2 Other information



Page 8 of 15

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

Revised on / Version: 07.12.2012 / 0003

Replaces revision of / Version: 04.05.2011 / 0002

Valid from: 07.12.2012 PDF print date: 01.10.2014 2,4-D amine salt 600 SL

AG-D2-600 SL

Miscibility:

Fat solubility / solvent:

Conductivity:

Not determined

Not determined

Not determined

Not determined

Surface tension:

45,06 mN/m (25°C)

Solvents content:

Not determined

#### **SECTION 10: Stability and reactivity**

#### 10.1 Reactivity

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.

Effects of light as well as warmth.

T > 30°C

#### 10.5 Incompatible materials

See also section 7.

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).

Toxicity/effect	Endpoi nt	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	944		Rat	OECD 401 (Acute Oral Toxicity)	
Acute toxicity, by dermal route:	LD50	6536		Rat	OECD 402 (Acute Dermal Toxicity)	
Acute toxicity, by inhalation:						n.d.a.
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Not irritant
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Risk of serious damage to eyes.



Page 9 of 15 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

Revised on / Version: 07.12.2012 / 0003

Replaces revision of / Version: 04.05.2011 / 0002

Valid from: 07.12.2012 PDF print date: 01.10.2014 2,4-D amine salt 600 SL AG-D2-600 SL

	1	1			0=0= (0)	
Respiratory or skin				Guinea pig	OECD 406 (Skin	Yes (skin contact)
sensitisation:					Sensitisation)	
Germ cell mutagenicity:						n.d.a.
Carcinogenicity:						n.d.a.
Reproductive toxicity:						n.d.a.
Specific target organ toxicity -						n.d.a.
single exposure (STOT-SE):						
Specific target organ toxicity -						n.d.a.
repeated exposure (STOT-						
RĖ):						
Aspiration hazard:						n.d.a.
Respiratory tract irritation:						n.d.a.
Repeated dose toxicity:	NOAEL	1000	mg/kg	Rat		(21d, percutaneous)
			bw/d			
Repeated dose toxicity:	NOAEL	0,5	mg/kg	Dog		(90d)
			bw/d			
Repeated dose toxicity:	NOAEL	600	ppm	Rat		(28d, oral)
Repeated dose toxicity:	NOAEL	200	ppm	Mouse		(90d feeding)
Repeated dose toxicity:	NOAEL	150	ppm	Rat		(90d, neurotoxicity)
Repeated dose toxicity:	NOAEL	500	ppm	Rat		(90d)
Symptoms:						n.d.á.

Toxicity/effect	Endpoi	Value	Unit	Organism	Test method	Notes
	nt					
Acute toxicity, by oral route:	LD50	764	mg/kg	Rat	OECD 401 (Acute	
					Oral Toxicity)	
Acute toxicity, by dermal	LD50	> 2000	mg/kg	Rat	OECD 402 (Acute	
route:					Dermal Toxicity)	
Acute toxicity, by inhalation:	LC50	> 5000	mg/m3/	Rat	OECD 403 (Acute	
			4h		Inhalation Toxicity)	
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute	Not irritant
					Dermal	
					Irritation/Corrosion)	
Serious eye				Rabbit	OECD 405 (Acute	Risk of serious damage
damage/irritation:					Eye	to eyes.
					Irritation/Corrosion)	
Respiratory or skin					OECD 406 (Skin	Yes (skin contact)
sensitisation:					Sensitisation)	
Germ cell mutagenicity:						Negative
Reproductive toxicity:						Negative

## **SECTION 12: Ecological information**

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



Page 10 of 15

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II Revised on / Version: 07.12.2012 / 0003
Replaces revision of / Version: 04.05.2011 / 0002

Valid from: 07.12.2012 PDF print date: 01.10.2014 2,4-D amine salt 600 SL AG-D2-600 SL

AG	-DZ	-600	JOL	

AG-D2-600 SL							
Toxicity/effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
Toxicity to fish:	LC50	96h	>100	mg/l	Cyprinus caprio		
Toxicity to daphnia:	EC50	48h	>100	mg/l	Daphnia magna		
Toxicity to algae:	EC50		908	mg/l	Scenedesmus quadricauda		
Toxicity to algae:	EyC50	72h	186,85	mg/l	Pseudokirchnerie Ila subcapitata		
Toxicity to algae:	ErC50	72h	320	mg/l	Pseudokirchnerie Ila subcapitata		
Toxicity to algae:	NOEC/NO EL		32	mg/l	Pseudokirchnerie Ila subcapitata		
Toxicity to algae:	EyC50	72h	67,8	mg/l	Anabaena flos- aquae		
Toxicity to algae:	ErC50	72h	320	mg/l	Anabaena flos- aquae		
Toxicity to algae:	NOEC/NO EL		32	mg/l	Anabaena flos- aquae		
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.

Toxicity/effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
Toxicity to fish:	LC50	96h	168,14	mg/l	Cyprinus caprio	OECD 203	
						(Fish, Acute	
						Toxicity Test)	
Toxicity to daphnia:	EC50	48h	86,64	mg/l	Daphnia magna	OECD 202	
						(Daphnia sp.	
						Acute	
						Immobilisation	
						Test)	
Toxicity to algae:	EC50	72h	59,9	mg/l	Anabaena flos-	OECD 201	
					aquae	(Alga, Growth	
						Inhibition Test)	
Persistence and						OECD 301 D	Analogous conclusion,
degradability:						(Ready	Not readily
						Biodegradability	biodegradable
						- Closed Bottle	-
						Test)	



Page 11 of 15

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

Revised on / Version: 07.12.2012 / 0003

Replaces revision of / Version: 04.05.2011 / 0002

Valid from: 07.12.2012 PDF print date: 01.10.2014 2,4-D amine salt 600 SL

AG-D2-600 SL

Bioaccumulative potential:	Log Pow	0,65			
Water solubility:		750	g/l		(20°C)

#### **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 01 aqueous washing liquids and mother liquors

20 01 19 pesticides

Recommendation:

Pay attention to local and national official regulations

Approved rubbish dump for special refuse

E.g. suitable incineration plant.

E.g. dispose at suitable refuse site.

#### For contaminated packing material

Pay attention to local and national official regulations

Empty container completely.

Uncontaminated packaging can be recycled.

Dispose of packaging that cannot be cleaned in the same manner as the substance. 15 01 10 packaging containing residues of or contaminated by dangerous substances

## **SECTION 14: Transport information**

#### **General statements**

UN number: n.a.

Transport by road/by rail (ADR/RID)

UN proper shipping name:

Transport hazard class(es):

Packing group:

Classification code:

LQ (ADR 2013):

LQ (ADR 2009):

n.a.

LQ (ADR 2009):

n.a.

Environmental hazards: Not applicable

Tunnel restriction code:

Transport by sea (IMDG-code)

UN proper shipping name:

Transport hazard class(es): n.a.



Page 12 of 15

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

Revised on / Version: 07.12.2012 / 0003

Replaces revision of / Version: 04.05.2011 / 0002

Valid from: 07.12.2012 PDF print date: 01.10.2014 2,4-D amine salt 600 SL

AG-D2-600 SL

Packing group: n.a. Marine Pollutant: n.a

Environmental hazards: Not applicable

Transport by air (IATA)

UN proper shipping name:

Transport hazard class(es):

Packing group:

n.a.

n.a.

Environmental hazards: Not applicable

Special precautions for user

Unless specified otherwise, general measures for safe transport must be followed.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Non-dangerous material according to Transport Regulations.

#### **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.

Observe youth employment law (German regulation).

Observe law on protection of expectant mothers (German regulation).

Observe incident regulations.

Observe plant protection medium law.

COMMISSION REGULATION (EU) No 547/2011 of 8 June 2011 implementing Regulation (EC) No 1107/2009 of the European Parliament and of the Council as regards labelling requirements for plant protection products

#### 15.2 Chemical safety assessment

A chemical safety assessment is not provided for mixtures.

A chemical safety assessment was carried out for the following

substance(s):

dimethylammonium 2,4-dichlorophenoxyacetate

#### **SECTION 16: Other information**

These details refer to the product as it is delivered.

Revised sections: 2, 12, 14

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.

41 Risk of serious damage to eyes.

43 May cause sensitization by skin contact.

51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

H302 Harmful if swallowed.



Page 13 of 15

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

Revised on / Version: 07.12.2012 / 0003

Replaces revision of / Version: 04.05.2011 / 0002

Valid from: 07.12.2012 PDF print date: 01.10.2014 2,4-D amine salt 600 SL

AG-D2-600 SL

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H411 Toxic to aquatic life with long lasting effects.

Acute Tox. — Acute toxicity - oral Eye Dam. — Serious eye damage Skin Sens. — Skin sensitization

Aquatic Chronic — Hazardous to the aquatic environment - chronic

#### 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)

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



Page 14 of 15

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

Revised on / Version: 07.12.2012 / 0003

Replaces revision of / Version: 04.05.2011 / 0002

Valid from: 07.12.2012 PDF print date: 01.10.2014 2,4-D amine salt 600 SL

AG-D2-600 SL

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

IUCLIDInternational 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

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

NIOSHNational 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



Page 15 of 15

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

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AG-D2-600 SL

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

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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