



SAFETY DATA SHEET

Tropigan

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Version 1

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9504116 AG-D2-600 SL

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

Product identifier

Tropigan

Synonyms 2,4-D Ammonium salt solution 600 SL
Pure substance/mixture Mixture
Formula SL

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

Recommended Use Herbicide
Uses advised against No information available

Details of the supplier of the safety data sheet

Supplier Address ADAMA Agan Ltd
P.O.B. 262
ASHDOD Israel

For further information, please contact

Email address SDS@ADAMA.COM
Emergency Telephone

Emergency Telephone ADAMA Makhteshim: + 972 8 6560800/801 ; + 972 8 6296713/714
ADAMA Agan : + 972 8 8515341

Section 2: HAZARDS IDENTIFICATION

Classification of the substance or mixture

Acute toxicity - Oral Category 5 - (H303)
Serious eye damage/eye irritation Category 1 - (H318)
Acute aquatic toxicity Category 1 - (H400)
Chronic aquatic toxicity Category 2 - (H411)

Label Elements

Hazard pictograms

**Signal word**

Danger

Hazard Statements

H317 - May cause an allergic skin reaction
 H318 - Causes serious eye damage
 H400 - Very toxic to aquatic life
 H411 - Toxic to aquatic life with long lasting effects

Precautionary Statements

P102 - Keep out of reach of children
 P280 - Wear protective gloves/protective clothing/eye protection/face protection
 P302 + P352 - IF ON SKIN: Wash with plenty of soap and water
 P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 P501 - Dispose of contents/ container to an approved waste disposal plant

Other Hazards

No information available

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

Chemical Name	Weight-%	CAS No	EC No	GHS Classification	M-Factor
dimethylammonium 2,4-dichlorophenoxyacetate	57 - 63	2008-39-1	217-915-8	Acute Tox. 4 (H302) Eye Dam. 1 (H318) Skin Sens. 1 (H317) Aquatic Chronic 2 (H411)	

Full text of H- and EUH-phrases: see section 16

Section 4: FIRST AID MEASURES

First aid measures**General advice**

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). First aider: Pay attention to self-protection!.

Inhalation

Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration. Call a physician.

Skin Contact

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If symptoms persist, call a physician.

Eye contact

Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. Call a physician immediately.

Ingestion

Rinse mouth. Drink plenty of water. If symptoms persist, call a physician.

Self-protection of the first aider

Use personal protective equipment as required.

Most important symptoms and effects, both acute and delayed

Symptoms None known.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

Section 5: FIRE-FIGHTING MEASURES

Extinguishing media

Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media

No information available.

Special hazards arising from the substance or mixture

No specific hazard known.

Advice for firefighters

In the event of fire, wear self-contained breathing apparatus

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

Section 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions

Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

For emergency responders

Use personal protection recommended in Section 8.

Environmental precautions

Do not allow into any sewer, on the ground or into any body of water. Should not be released into the environment. Do not flush into surface water or sanitary sewer system. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

Methods and material for containment and cleaning up

Methods for cleaning up

Take up mechanically, placing in appropriate containers for disposal.

Reference to other sections

Other Information

See also section 8,13

Section 7: HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling

Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Use only with adequate ventilation. In

case of insufficient ventilation, wear suitable respiratory equipment. Use only with adequate ventilation and in closed systems.

General Hygiene Considerations

Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Storage Conditions

Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children. Keep containers tightly closed in a cool, well-ventilated place. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep in properly labeled containers.

Specific end use(s)

Risk Management Methods (RMM)

The information required is contained in this Material Safety Data Sheet.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

National occupational exposure limits

Chemical Name	European Union	United Kingdom	France	Spain	Germany
dimethylammonium 2,4-dichlorophenoxyacetate 2008-39-1					TWA: 1 mg/m ³ Ceiling / Peak: 8 mg/m ³ Skin
Chemical Name	Austria	Switzerland	Poland	Norway	Ireland
dimethylammonium 2,4-dichlorophenoxyacetate 2008-39-1	Skin STEL 4 mg/m ³ TWA: 1 mg/m ³	Skin STEL: 8 mg/m ³ TWA: 1 mg/m ³			

Exposure controls

Engineering Controls Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

Eye/face protection Tight sealing safety goggles.

Hand Protection Suitable chemical resistant gloves (EN 374) also with prolonged, direct contact (recommendation: protection index 6, corresponding > 480 minutes Permeability time (permeation) according to EN 374): e.g. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), butyl rubber (0.7 mm).

Body Protection Use suitable protective clothing and equipment if required, such as safety goggles certified to EN 166, gloves certified to EN 374, protective boots certified to EN 13832, and/or a water repellent woven coverall with 65% polyester and 35 % cotton.

Respiratory protection Use only with adequate ventilation.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls Do not allow into any sewer, on the ground or into any body of water.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties

Property	Values	Method	Remarks
Appearance Physical state	: liquid		

Color	:	brownish yellow		
Odor	:	No data available		
Odor threshold	:	No data available		
pH	:	7.4 - 8.4	CIPAC MT 75.3	
Melting point/freezing point °C	:	----		Not Applicable
Boiling point/boiling range °C	:	No data available		
Flash point °C	:	----		No data available
Evaporation rate	:	----		No data available
Flammability (solid, gas)	:	Not applicable for liquids		
Upper/lower flammability or explosive limits	:	No data available		
Vapor pressure kPa	:	No data available		
Vapor density	:	No data available		
Relative density	:	1.15 - 1.25	OECD 109	20 °C
Solubility(ies) mg/l	:	----		Not Applicable
Partition Coefficient (n-octanol/water) Log Pow	:			See Section 12 for more information
Autoignition temperature °C	:	----		No data available
Decomposition temperature °C	:	No data available		No data available
Kinematic viscosity mm²/s 40 °C	:	9.4	OECD 114	
Explosive properties	:	Not an explosive		
Oxidizing properties	:	Not oxidizing		
Other Information				
Bulk density g/ml	:	----		Not Applicable
Surface tension mN/m	:	54	OECD 115	

Section 10: STABILITY AND REACTIVITY

Reactivity

Not available.

Chemical stability

Stable under normal conditions.

Possibility of Hazardous Reactions

None under normal processing.

Conditions to avoid

Exposure to air or moisture over prolonged periods.

Incompatible Materials

No information available

Hazardous Decomposition Products

Thermal decomposition can lead to release of irritating and toxic gases and vapors.

Section 11: TOXICOLOGY INFORMATION

Information on toxicological effects

Acute toxicity

	<u>Values</u>	<u>Species</u>	<u>Method</u>	<u>Remarks</u>
Oral LD50 mg/kg	: > 2000	Rat	OECD 401	

Dermal LD50 mg/kg	: > 2000	Rat	OECD 402	
Inhalation LC50 mg/l/4h	: > 7.41	Rat	EEC B2	
Skin corrosion/irritation	: Non-irritating to the skin	Rabbit	OECD 404	
Serious eye damage/eye irritation	: Irritating to eyes	Rabbit	OECD 405	
Respiratory/skin sensitization	: Not a skin sensitizer	Mouse	OECD 429	LLNA

Chronic toxicity**Germ cell mutagenicity****Chemical Name**

dimethylammonium : Not classified
2,4-dichlorophenoxyacetate

Carcinogenicity**Chemical Name**

dimethylammonium : No data available
2,4-dichlorophenoxyacetate

Reproductive toxicity**Chemical Name**

dimethylammonium : Not toxic for the reproductive system
2,4-dichlorophenoxyacetate

STOT - single exposure**Chemical Name**

dimethylammonium : No data available
2,4-dichlorophenoxyacetate

STOT - repeated exposure**Chemical Name**

dimethylammonium : No data available
2,4-dichlorophenoxyacetate

Aspiration hazard**Chemical Name**

dimethylammonium : No data available
2,4-dichlorophenoxyacetate

Section 12: ECOLOGICAL INFORMATION**Toxicity****Aquatic toxicity**

Acute toxicity	Values	Species	Method	Remarks
Fish 96-hour LC50 mg/l	: > 100	Common carp	OECD 203	
Crustacea 48-hour EC50 mg/l	: > 100	Daphnia magna	OECD 202	
Algae 72-hour EC50 mg/l	: > 320	P. subcapitata	OECD 201	
Other plants EC50 mg/l	: 0.715	M. spicatum	OECD 239	14 days
Chronic aquatic toxicity	Values	Species	Method	Remarks
Fish NOEC mg/l	: No data available			
Crustacea NOEC mg/l	: No data available			
Algae NOEC mg/l	: 32	P.subcapitata		
Other plants NOEC mg/l	: 0.0977	M. spicatum	OECD 239	14 days; Calculated
Terrestrial Toxicity				
Birds Oral LD50 mg/kg				
Chemical Name				
dimethylammonium : 500		Bobwhite quail		
2,4-dichlorophenoxyacetate				

Bees Oral LD50 µg/bee

Chemical Name

dimethylammonium : 94
2,4-dichlorophenoxyacetate

Persistence and degradability

Abiotic Degradation

Water DT50 days

Chemical Name

dimethylammonium : ----
2,4-dichlorophenoxyacetate

Soil DT50 days

Chemical Name

dimethylammonium : ---- No data available
2,4-dichlorophenoxyacetate

Biodegradation

Chemical Name

dimethylammonium : Readily biodegradable
2,4-dichlorophenoxyacetate

Bioaccumulative potential

Partition Coefficient

(n-octanol/water) Partition Coefficient (n-octanol/water) Log Pow

Chemical Name

dimethylammonium : - 0.82 EEC A.8 2,4-D
2,4-dichlorophenoxyacetate

Bioconcentration factor (BCF)

Chemical Name

dimethylammonium : ---- No data available
2,4-dichlorophenoxyacetate

Mobility in soil

Adsorption/Desorption

Chemical Name

dimethylammonium : 60 KOC
2,4-dichlorophenoxyacetate

Results of PBT and vPvB assessment

The components in this formulation do not meet the criteria for classification as PBT or vPvB

Other adverse effects

No information available.

Section 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste from residues/unused products

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging	Do not reuse container.
Other Information	Waste codes should be assigned by the user based on the application for which the product was used.

Section 14: TRANSPORTATION INFORMATION

IMDG/IMO

UN/ID No *	3082
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (dimethylammonium 2,4-dichlorophenoxyacetate)
Hazard Class	9
Packing Group	III
Marine pollutant	Yes
Special precautions for user	

RID/ADR

UN/ID No *	3082
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (dimethylammonium 2,4-dichlorophenoxyacetate)
Hazard Class	9
Packing Group	III
Environmental hazard	Yes
Special precautions for user	

ICAO/IATA

UN/ID No *	3082
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (dimethylammonium 2,4-dichlorophenoxyacetate)
Hazard Class	9
Packing Group	III
Environmental hazard	Yes
Special precautions for user	
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not Applicable



* Note: UN3077 & UN3082 – These products may be transported as non-dangerous goods under the special provisions of IMDG Code 2.10.2.7; ADR SP375 and ICAO/IATA A197 when packed in single or inner packaging of up to 5L for liquids or 5 kg or less for solids.

Section 15: REGULATORY INFORMATION

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

Section 16: OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3
H302 - Harmful if swallowed

H303 - May be harmful if swallowed
H317 - May cause an allergic skin reaction
H318 - Causes serious eye damage
H400 - Very toxic to aquatic life
H411 - Toxic to aquatic life with long lasting effects

Revision Note Changes made to the last version are labeled with this sign ***.

List of Acronyms

ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road
ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
CAS Number - Chemical Abstracts Service number
EC Number - EINECS and ELINCS Number
EINECS - European Inventory of Existing Commercial Substances
ELINCS - European List of notified Chemical Substances
IATA - International Air Transport Association
ICAO-TI - Technical Instructions for the Safe Transport of Dangerous Goods by Air
IMDG - International Maritime Dangerous Goods
LC50 - Lethal Concentration to 50 % of a test population
LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose)
OECD - Organization for Economic Co-operation and Development
PBT - Persistent, Bioaccumulative and Toxic substance
RID - Regulations concerning the International Carriage of Dangerous Goods by Rail
STOT - Specific Target Organ Toxicity
vPvB - Very Persistent and Very Bioaccumulative

Disclaimer

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet