



SAFETY DATA SHEET

AG-P4-330 EC

Revision Date 03-Jan-2019

Version 1

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

Product identifier

AG-P4-330 EC

Synonyms Pendimethalin 330 EC
Pure substance/mixture Mixture

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 +972-03-6106666 Subscription no. 36789 (ADAMA Makhteshim Ltd.)

Section 2: HAZARDS IDENTIFICATION

Classification of the substance or mixture

Aspiration toxicity	Category 1 - (H304)
Acute toxicity - Oral	Category 5 - (H303)
Skin corrosion/irritation	Category 2 - (H315)
Serious eye damage/eye irritation	Category 2 - (H319)
Specific target organ toxicity (single exposure)	Category 3 - (H335)
Acute aquatic toxicity	Category 1 - (H400)
Chronic aquatic toxicity	Category 1 - (H410)
Flammable liquids	Category 3 - (H226)

Label Elements

Hazard pictograms

**Signal word**

Danger

Hazard Statements

H304 - May be fatal if swallowed and enters airways
 H303 - May be harmful if swallowed
 H315 - Causes skin irritation
 H319 - Causes serious eye irritation
 H335 - May cause respiratory irritation
 H410 - Very toxic to aquatic life with long lasting effects
 H226 - Flammable liquid and vapor

Precautionary Statements

P102 - Keep out of reach of children
 P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P243 - Take precautionary measures against static discharge
 P261 - Avoid breathing dust/fume/gas/mist/vapors/spray
 P270 - Do not eat, drink or smoke when using this product
 P280 - Wear protective gloves/protective clothing/eye protection/face protection
 P302 + P352 - IF ON SKIN: Wash with plenty of 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
 P331 - Do NOT induce vomiting
 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
Pendimethalin	32-36	40487-42-1	254-938-2	Skin Sens. 1 (H317) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	M = 100 M = 10
Benzenesulfonic acid, C10-13-alkyl derivs., calcium salt	2-4	90194-26-6	932-231-6	Skin Irrit. 2 (H315) Eye Dam. 1 (H318) Aquatic Chronic 3 (H412)	
butan-1-ol	3-5	71-36-3	200-751-6	Flam Liq. 3 (H226) Acute Tox. 4 (H302) Skin Irrit. 2 (H315) Eye Dam. 1 (H318) STOT SE 3 (H335) STOT SE 3 (H336)	
Hydrocarbons, C9, aromatics	54-60	N/A	918-668-5	Flam. Liq. 3 (H226) Asp. Tox. 1 (H304) STOT SE 3 (H335) STOT SE 3 (H336) Aquatic Chronic 2 (H411)	

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. Consult a physician if necessary.
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. If symptoms persist, call a physician.
Ingestion	Do NOT induce vomiting. Rinse mouth. Drink plenty of water. Immediate medical attention is required.
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

Remove all sources of ignition. Evacuate personnel to safe areas. Use only with adequate ventilation. Use personal protective equipment as required. Keep people away from and upwind of spill/leak.

For emergency responders

Use personal protection recommended in Section 8.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Do not flush into surface water or sanitary sewer system.

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

Use only with adequate ventilation. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Take precautionary measures against static discharges. Use spark-proof tools and explosion-proof equipment. All equipment used when handling the product must be grounded. Use with local exhaust ventilation. Use personal protective equipment as required. Do not breathe dust/fume/gas/mist/vapors/spray.

General Hygiene Considerations

When using do not eat, drink or smoke. Regular cleaning of equipment, work area and clothing is recommended. Wash contaminated clothing before reuse.

Conditions for safe storage, including any incompatibilities

Storage Conditions

Keep tightly closed in a dry and cool place. Keep in properly labeled containers. Keep containers tightly closed in a cool, well-ventilated place.

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
butan-1-ol 71-36-3		STEL: 50 ppm STEL: 154 mg/m ³ Skin	STEL: 50 ppm STEL: 150 mg/m ³	S* STEL: 50 ppm STEL: 154 mg/m ³	TWA: 100 ppm TWA: 310 mg/m ³ Ceiling / Peak: 100 ppm Ceiling / Peak: 310 mg/m ³
Chemical Name	Italy	Portugal	Netherlands	Finland	Denmark
butan-1-ol 71-36-3		TWA: 20 ppm		TWA: 50 ppm TWA: 150 mg/m ³ STEL: 75 ppm STEL: 230 mg/m ³ Skin	Ceiling: 50 ppm Ceiling: 150 mg/m ³ Skin
Chemical Name	Austria	Switzerland	Poland	Norway	Ireland
butan-1-ol 71-36-3	STEL 200 ppm STEL 600 mg/m ³	STEL: 50 ppm STEL: 150 mg/m ³	STEL: 150 mg/m ³ TWA: 50 mg/m ³	Skin Ceiling: 25 ppm	TWA: 20 ppm STEL: 25 ppm

	TWA: 50 ppm TWA: 150 mg/m ³	TWA: 50 ppm TWA: 150 mg/m ³	Skin	Ceiling: 75 mg/m ³	STEL: 75 mg/m ³ Skin
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Exposure controls

Engineering Controls Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

- Eye/face protection** Tight sealing safety goggles.
- Hand Protection** Gloves made of plastic or rubber.
- Body Protection** Suitable protective clothing.
- Respiratory protection** Use only with adequate ventilation.

General Hygiene Considerations When using do not eat, drink or smoke. Regular cleaning of equipment, work area and clothing is recommended. Wash contaminated clothing before reuse.

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

<u>Property</u>	<u>Values</u>	<u>Method</u>	<u>Remarks</u>
Appearance			
Physical state	: Liquid		
Color	: dark brown		
Odor	: Aromatic		
Odor threshold	: No data available		
pH	: 5 - 7	CIPAC MT 75.3	solution (1 %)
Melting point/freezing point °C	: No data available		
Boiling point/boiling range °C	: No data available		
Flash point °C	: 40	EEC A.9	
Evaporation rate	: Not Applicable		
Flammability (solid, gas)	: Not Applicable		
Upper/lower flammability or explosive limits	: No data available		
Vapor pressure kPa	: No data available		
Vapor density	: No data available		
Relative density	: 0.92 - 1.02	EEC A.3	
Solubility(ies) mg/l	: No data available		
Partition Coefficient (n-octanol/water) Log Pow	:		See Section 12 for more information
Autoignition temperature °C	: 375		
Decomposition temperature °C	: No data available		
Kinematic viscosity mm²/s 40 °C	: 2.0		
Explosive properties	: Not an explosive		
Oxidizing properties	: No		
Other Information			
Bulk density g/ml	:		Not Applicable
Surface tension mN/m	: 30.26	EEC A.5	25 °C

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

Heat, flames and sparks.

Incompatible Materials

No information available

Hazardous Decomposition Products

None under normal use conditions.

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	: 3470	Rat	EPA 81-1	female
Dermal LD50 mg/kg	: > 4000	Rat	EPA 81-2	
Inhalation LC50 mg/l/4h	: > 2.05	Rat	EPA 81-3	
Skin corrosion/irritation	: Irritating to skin	Rabbit	EPA 81-5	
Serious eye damage/eye irritation	: Irritating to eyes	Rabbit	OPPTS 870.2400	
Respiratory/skin sensitization	: Not a skin sensitizer	Guinea pig	EPA 81-6	

Chronic toxicity

Germ cell mutagenicity

Chemical Name
Pendimethalin : Not classified

Carcinogenicity

Chemical Name
Pendimethalin : Not Carcinogenic

Reproductive toxicity

Chemical Name
Pendimethalin : Not toxic for the reproductive system

STOT - single exposure

Chemical Name
Pendimethalin : No data available

STOT - repeated exposure

Chemical Name
Pendimethalin : No data available

Aspiration hazard

Chemical Name
Pendimethalin : No data available

Section 12: ECOLOGICAL INFORMATION

Toxicity**Aquatic toxicity**

	<u>Values</u>	<u>Species</u>	<u>Method</u>	<u>Remarks</u>
Acute toxicity				
Fish 96-hour LC50 mg/l	: 2.51	Rainbow trout	EEC C.1	
Crustacea 48-hour EC50 mg/l	: 17.2	Daphnia magna	OECD 202	
Algae 72-hour EC50 mg/l	: 0.014	Green algae	EEC C.3	
Other plants EC50 mg/l	:			Not available

Terrestrial Toxicity**Birds Oral LD50 mg/kg****Chemical Name**

Pendimethalin	: 1421	Mallard duck
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Bees Oral LD50 µg/bee**Chemical Name**

Pendimethalin	: > 101.2
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Persistence and degradability**Abiotic Degradation****Water DT50 days****Chemical Name**

Pendimethalin	: 31.8		
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Soil DT50 days**Chemical Name**

Pendimethalin	: 182	SETAC
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Biodegradation**Chemical Name**

Pendimethalin	: No information available
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Bioaccumulative potential**Partition Coefficient****(n-octanol/water) Partition Coefficient (n-octanol/water) Log Pow****Chemical Name**

Pendimethalin	: 5.4	EEC A.8	pH 6.5
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Bioconcentration factor (BCF)**Chemical Name**

Pendimethalin	: 1536
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Mobility in soil**Adsorption/Desorption****Chemical Name**

Pendimethalin	: 13792		Koc
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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	Improper disposal or reuse of this container may be dangerous and illegal.
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 *	1993
Proper shipping name	FLAMMABLE LIQUID, N.O.S. (Hydrocarbons, C9, aromatics)
Hazard Class	3
Packing Group	III
Marine pollutant	Yes
Special precautions for user	

RID/ADR

UN/ID No *	1993
Proper shipping name	FLAMMABLE LIQUID, N.O.S. (Hydrocarbons, C9, aromatics)
Hazard Class	3
Packing Group	III
Environmental hazard	Yes
Special precautions for user	

ICAO/IATA

UN/ID No *	1993
Proper shipping name	FLAMMABLE LIQUID, N.O.S. (Hydrocarbons, C9, aromatics)
Hazard Class	3
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

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