

SAFETY DATA SHEET
EU Regulation No. 1907/2006,
Annex II

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Revised edition no : 2

Date : 20 / 5 / 2015

Supersedes : 24 / 11 / 2013

TOMAHAWK 200 EC

H-00310-37952-RAII

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

1.1. Product identifier

Trade name : TOMAHAWK 200 EC

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

Relevant identified uses : Herbicide

Uses advised against : None under normal conditions.

1.3. Details of the supplier of the safety data sheet

: ADAMA Agan Ltd
P.O.B. 262
ASHDOD Israel

Email : SDS@ADAMA.COM

1.4. Emergency telephone number

: +972-8-8515211

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

Classification 67/548/EEC (DSD) - 1999/45/EC (DPD)

: R10
Xn; R65
Xi; R37
R52-53

2.2. Label elements

Labelling 1999/45/EC (DPD)

Symbol(s)



R Phrase(s)

: Xn : Harmful.
: R10 - Flammable.
: R37 - Irritating to respiratory system.
: R52/53 - Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
: R65 - Harmful : may cause lung damage if swallowed.

S Phrase(s)

: S02 - Keep out of the reach of children.
: S13 - Keep away from food, drink and animal feedingstuffs.
: S16 - Keep away from sources of ignition - No smoking.
: S23 - Do not breathe gas/fumes/vapour/spray.
: S24/25 - Avoid contact with skin and eyes.
: S46 - If swallowed seek medical advice immediately and show this container or label.
: S57 - Use appropriate container to avoid environmental contamination.
: S60 - This material and its container must be disposed of as hazardous waste.

2.3. Other hazards

Other hazards : None under normal conditions.

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TOMAHAWK 200 EC**H-00310-37952-RAII****SECTION 3. Composition/information on ingredients**

Substance name	Concentration % w/w	CAS No	EC No	Index No	REACH Reg.	Classification
Fluroxypyr-meptyl (ISO)	: 28 - 32 %	81406-37-3	279-752-9	607-272-00-5	----	N; R50-53 ----- Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410
Isobutanol	: < 2 %	78-83-1	201-148-0	603-108-00-1	----	R10 R67 Xi; R37/38-41 ----- Eye Dam 1 - H318 Flam. Liq. 3 - H226 Skin Irrit. 2 - H315 STOT SE 3 - H335 STOT SE 3 - H336
Tetrapropylene benzene sulphonate- Ca-salt	: 2 - 4 %	----	----	----	----	Xn; R21 Xi; R38-41 R52-53 ----- Eye Dam 1 - H318 Acute Tox. 4 - H312 Skin Irrit. 2 - H315 Aquatic Chronic 3 - H412
Hydrocarbons, C9, aromatics	: 56 - 63 %	----	918-668-5	----	----	R10 Xn; R65 Xi; R37 N; R51-53 ----- Asp. Tox 1 - H304 Flam. Liq. 3 - H226 STOT SE 3 - H335 Aquatic Chronic 2 - H411 STOT SE 3 - H336

Text of R/H-Phrases - Sec. 16

SECTION 4. First aid measures**4.1. Description of first aid measures****First aid measures**

- Inhalation** : Remove victim to fresh air. If breathing is difficult: artificial respiration . Get medical attention.
- Skin contact** : Remove contaminated clothing and shoes. Wash away remainder with plenty of water.
- Eye contact** : Wash out with plenty of water with the eyelid held wide open for at least 15 minutes. Get medical attention.
- Ingestion** : Do not induce vomiting.
Wash out mouth with plenty of water. Never give anything by mouth to an unconscious person. Get medical attention.

4.2. Most important symptoms and effects, both acute and delayed**4.3. Indication of any immediate medical attention and special treatment needed**

- Note to physician** : No specific antidote known. Treat symptomatically and give supportive therapy.
- Protection of first-aiders** : Use appropriate protection (see section 8).

SECTION 5. Fire-fighting measures**5.1. Extinguishing media**

- Suitable extinguishing media** : For small fire : dry chemical powder , water spray carbon dioxide
For large fire : foam , water fog , water spray.

5.2. Special hazards arising from the substance or mixture

- Specific hazards** : Flashback may occur along vapour trail.
- Hazardous decomposition products** : Chloride compounds , nitrogen oxides (NO, NO2) , fluorine compounds , carbon oxides (CO, CO2) .

5.3. Advice for fire-fighters

- Protection against fire** : Self-contained breathing apparatus and total protection required in enclosed areas.

ADAMA Agan Ltd

P.O.B. 262 ASHDOD Israel

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SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For emergency responders : Wear suitable protective clothing, gloves and eye/face protection.

6.2. Environmental precautions

Environmental precautions : Do not empty into drains Do not discharge into the environment.

6.3. Methods and material for containment and cleaning up

Clean up methods : Absorb in sand or other inert material. Collect spills and put it into appropriated container. Dispose of this material and its container at hazardous or special waste collection point. Keep away from combustible material.

6.4. Reference to other sections

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Handling : Ventilation required.

7.2. Conditions for safe storage, including any incompatibilities

Storage : Keep in original containers. Keep away from food, drink and animal feeding stuffs. Store in dry, well-ventilated area.

Storage - away from : Direct sunlight .

7.3. Specific end use(s)

Precautions in handling and storage : Handle in accordance with good industrial hygiene and safety procedures.

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

TLV[©] : **Aromatic C-9 solvent: 25 ppm.**
: **Fluroxypyr-meptyl (ISO): Data not available.**
: Ventilation required.

8.2. Exposure controls

Personal protection : Wash hands thoroughly after handling. When using do not eat, drink or smoke. Wash clothing before re-using.

- Respiratory protection : No special respiratory protection equipment is recommended under normal conditions of use with adequate ventilation. .
- Hand protection : Wear suitable gloves.
- Skin protection : Wear suitable protective clothing Wear safety boots.
- Eye protection : Chemical goggles or safety glasses.

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SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	
Physical state at 20 °C	: Liquid
Colour	: Amber brown .
Odour	: Aromatic (solvent).
Odour threshold	: Not available
pH	: 5 - 7
Melting point / Freezing point	: Not applicable
Initial boiling point - boiling range	: Not available
Flash point	: 46
Evaporation rate	: Not available
Flammability	: Not applicable for liquids
Explosion limits (lower - upper)	: Not available
Vapour pressure	: Not applicable
Vapour density	: Not available
Relative density	: 0.96-0.99 @ 20°C.
Solubility	: Not applicable
Partition coefficient : n-octanol / water	: 4.5 (Fluroxypr-meptyl).
Auto-ignition temperature	: Not available
Decomposition temperature	: Not available
Viscosity	: 2.96
Explosive Properties	: (Naphta): May form explosive mixtures with air.
Explosion limits - lower [%]	: 0.8
Explosion limits - upper [%]	: 7
Oxidising properties	: Not oxidizing

9.2. Other information

Surface tension mN/m : 29.8 @ 25°C

SECTION 10. Stability and reactivity

10.1. Reactivity

: Stable under normal conditions.

10.2. Chemical stability

: Stable under normal conditions.

10.3. Possibility of hazardous reactions

: Hazardous polymerization will not occur

10.4. Conditions to avoid

: Keep away from heat/sparks/open flames/hot surfaces. — No smoking.

10.5. Incompatible materials

Materials to avoid : oxidizing agents , acids , alkali .

10.6. Hazardous decomposition products

Hazardous decomposition products : Chloride compounds , fluorine compounds , nitrogen oxides (NO, NO₂) , carbon oxides (CO, CO₂) .

Hazardous properties : Flashback may occur along vapour trail.

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SECTION 11. Toxicological information

On product

11.1. Information on toxicological effects

- Acute toxicity
 - Oral, Rat LD50 (mg/kg) : > 2,000
 - Dermal, Rat LD50 [mg/kg] : > 4,000
 - Inhalation, Rat LC50 [mg/l/4h] : > 5.01
- Skin corrosion/irritation : Mildly irritating
- Serious eye damage/irritation : Not irritant
- Respiratory or skin sensitisation : Non sensitizer
- Germ cell mutagenicity : (Fluroxypyr-meptyl): Not mutagenic
- Carcinogenicity : (Fluroxypyr-meptyl): not classified.
- Reproductive toxicity : (Fluroxypyr-meptyl): Not considered to be toxic for the reproductive system.
- STOT-single exposure : Not available
- STOT-repeated exposure : Not available
- Aspiration hazard : Not available

SECTION 12. Ecological information

On product

12.1. Toxicity

Acute toxicity

- 96 H-LC50 - Rainbow trout [mg/l] : 12.5
- 48 H-EC50 - Daphnia magna [mg/l] : 44.3
- 96 H - EC50 - Algae [mg/l] : 88.4
- Bees LD50 [µg] : Not toxic to bees
- LD50 Birds [mg/kg] : (Fluroxypyr-meptyl): Bobwhite quail >2,000

Long-term exposure

12.2. Persistence - degradability

- Persistence - degradability : (Fluroxypyr-meptyl): Soil :
The product is poorly biodegradable .
The product is not persistent.

12.3. Bioaccumulative potential

12.4. Mobility in soil

- Mobility : (Fluroxypyr-meptyl): Soil :
Low mobility .
Moderate (Fluroxypyr).

12.5. Results of PBT and vPvB assessment

- : Not available

12.6. Other adverse effects

- : None known.

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SECTION 13. Disposal considerations

13.1. Waste treatment methods

General

: Dispose of in a pesticide approved landfill, or in a chemical incinerator equipped with scrubbers. Dispose in a safe manner in accordance with local/national regulations.

SECTION 14. Transport information

14.1. UN number

UN N°

: 1993

Hazard Label(s)



: 3 : Flammable liquid.

14.2. UN proper shipping name

• Land transport - ADR/RID

: FLAMMABLE LIQUID, N.O.S. (Hydrocarbons, C9, aromatics)

• Sea transport - IMO-IMDG

: FLAMMABLE LIQUID, N.O.S. (Hydrocarbons, C9, aromatics)

• Air transport - ICAO/IATA

: FLAMMABLE LIQUID, N.O.S. (Hydrocarbons, C9, aromatics)

14.3. Transport hazard class(es)

• Land transport - ADR/RID

: 3

• Sea transport - IMO-IMDG

: 3

• Air transport - ICAO/IATA

: 3

14.4. Packing group

• Land transport - ADR/RID

: III

• Sea transport - IMO-IMDG

: III

• Air transport - ICAO/IATA

: III

14.5. Environmental hazards

- IMDG-Marine pollution

: Marine pollutant - Polluant marin

14.6. Special precautions for user

: See transport documents.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

: Not applicable.

SECTION 15. Regulatory information

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

: Ensure all national/local regulations are observed.

15.2. Chemical Safety Assessment

: Not applicable

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SECTION 16. Other information

List of relevant R phrases (heading 3) : R10 - Flammable.
R21 - Harmful in contact with skin.
R37 - Irritating to respiratory system.
R37/38 - Irritating to respiratory system and skin.
R38 - Irritating to skin.
R41 - Risk of serious damage to eyes.
R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R51/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R52/53 - Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R65 - Harmful : may cause lung damage if swallowed.
R67 - Vapours may cause drowsiness and dizziness.

List of relevant H phrases (Section 3) : H226 - Flammable liquid and vapour.
H304 - May be fatal if swallowed and enters airways.
H312 - Harmful in contact with skin.
H315 - Causes skin irritation.
H318 - Causes serious eye damage.
H335 - May cause respiratory irritation.
H336 - May cause drowsiness or dizziness.
H400 - Very toxic to aquatic life.
H410 - Very toxic to aquatic life with long lasting effects.
H411 - Toxic to aquatic life with long lasting effects.
H412 - Harmful to aquatic life with long lasting effects.

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