



# SAFETY DATA SHEET

The Globally Harmonized System of Classification and Labeling of Chemicals (GHS)

## Tomahawk 200 EC

Revision date 15-Aug-2022

Version 1 Supersedes Date:

15-Aug-2022

Product Code(s)

HRB00850-27

Print Date 15-Aug-2022

ADM.03300.H.2.A 37953

## 1. Identification

### Product identifier

## Tomahawk 200 EC

### Other means of identification

Synonyms	Fluroxypyr 200 EC
Formulation type	EC
Registration Number(s)	L6652
Pure substance/mixture	Mixture

### Recommended use of the chemical and restrictions on use

Recommended use	Herbicide; Professional use
Uses advised against	No information available

### Detailed information about the manufacturer, supplier, and/or importer

Supplier	ADAMA SOUTH AFRICA (PTY) LTD Ground Floor, Simeka House The Vineyards Office Estate 99 Jip de Jager Drive Bellville 7530
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### Emergency telephone number

Emergency Telephone	+27 82 446 8946 (Griffon Poison Centre) +27 86 155 5777 (Tygerberg Poison Information Centre) +27 86 100 6366 and +27 83 253 6618 (SPILL TECH)
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E-mail address	SDS@ADAMA.COM
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## 2. Hazard(s) identification

### Classification of the substance or mixture

Aspiration hazard	Category 1 - (H304)
Serious eye damage/eye irritation	Category 1 - (H318)
Specific target organ toxicity (single exposure)	Category 3 - (H336)
Chronic aquatic toxicity	Category 1 - (H410)

### Label elements

**Signal word**

Danger

**Hazard pictograms****Hazard statements**

H304 - May be fatal if swallowed and enters airways  
 H318 - Causes serious eye damage  
 H336 - May cause drowsiness or dizziness  
 H410 - Very toxic to aquatic life with long lasting effects

**Precautionary statements**

P102 - Keep out of reach of children  
 P261 - Avoid breathing dust/fume/gas/mist/vapors/spray  
 P264 + P265 - Wash face, hands and any exposed skin thoroughly after handling. Do not touch eyes  
 P271 - Use only outdoors or in a well-ventilated area  
 P273 - Avoid release to the environment  
 P280 - Wear protective gloves/protective clothing/eye protection/face protection  
 P301 + P316 - IF SWALLOWED: Get emergency medical help immediately  
 P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing  
 P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
 P319 - Get medical help if you feel unwell  
 P331 - Do NOT induce vomiting  
 P391 - Collect spillage  
 P403 + P233 - Store in a well-ventilated place. Keep container tightly closed  
 P405 - Store locked up  
 P501 - Dispose of contents/ container to an approved waste disposal plant

**Additional information**

This product is classified as hazardous according to the criteria in South Africa - GHS classification and labelling of chemicals – SANS10234 and the Regulations for Hazardous Chemical Agents - 2021.

**Other hazards**

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

**3. Composition/information on ingredients****Substance**

Not applicable

**Mixture****Synonyms**

Fluroxypyr 200 EC

Chemical name	CAS No	Weight-%	EC No	INTERNATIONAL GHS CLASSIFICATION	M-Factor
Hydrocarbons, C10, aromatics, <1% naphthalene	-	57 - 63	918-811-1	STOT SE 3 (H336) Asp. Tox. 1 (H304)	

				Aquatic Chronic 2 (H411)	
Fluroxypyr-meptyl	81406-37-3	27 - 31	279-752-9	Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	M=1 M=1
Benzenesulfonic acid, C10-13-alkyl derivs., calcium salt	90194-26-6	2 - 4	290-635-1 [932-231-6]	Skin Irrit. 2 (H315) Eye Dam. 1 (H318) Aquatic Chronic 3 (H412)	
2-Ethylhexanol	104-76-7	< 2	203-234-3	Acute Tox. 4 (H332) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) STOT SE 3 (H335)	

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

#### Additional information

Note: The other ingredients do not cause or contribute towards the correct GHS classification of Tomahawk 200 EC and are therefore, in terms of the South African Regulations for Hazardous Chemical Agents - 2021. Regulation 14(b), not listed in the table above.

## 4. First-aid measures

### Description of necessary first aid measures

<b>General advice</b>	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.
<b>Inhalation</b>	Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration. Call a physician.
<b>Skin contact</b>	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Consult a physician if necessary.
<b>Eye contact</b>	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. Get immediate medical advice/attention.
<b>Ingestion</b>	Do NOT induce vomiting. Rinse mouth. If symptoms persist, call a physician.

### For emergency responders

<b>Self-protection of the first aider</b>	Use personal protective equipment as required.
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### Most important symptoms/effects, acute and delayed

<b>Symptoms</b>	None known.
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### Indication of immediate medical attention and special treatment needed, if necessary

<b>Note to physicians</b>	Treat symptomatically.
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## 5. Fire-fighting measures

### Suitable Extinguishing Media

<b>Suitable Extinguishing Media</b>	Dry chemical. Carbon dioxide (CO2). Water spray. Alcohol resistant foam.
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<b>Unsuitable extinguishing media</b>	Do not scatter spilled material with high pressure water streams.
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**Specific hazards arising from the chemical**

**Specific hazards arising from the chemical** Flammable. Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray.

**Flammable properties** Combustible material

**Explosive properties** Not an explosive.

**Specific/special fire-fighting measures**

**Specific/special fire-fighting measures** No information available.

**Special protective equipment and precautions for fire-fighters**

**Special protective equipment for fire-fighters** Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

**6. Accidental release measures****Personal precautions, protective equipment and emergency procedures**

**Personal precautions** Evacuate personnel to safe areas. Use personal protective equipment as required. See section 8 for more information. Take precautionary measures against static discharges. Do not touch or walk through spilled material. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation.

**Environmental precautions**

**Environmental precautions** Refer to protective measures listed in Sections 7 and 8. Prevent further leakage or spillage if safe to do so.

**Methods and material for containment and cleaning up**

**Methods for containment** Stop leak if you can do it without risk. Do not touch or walk through spilled material. Dike far ahead of liquid spill for later disposal.

**Methods for cleaning up** Take precautionary measures against static discharges. Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

**Prevention of secondary hazards** Clean contaminated objects and areas thoroughly observing environmental regulations.

**Other information** Refer to protective measures listed in Sections 7 and 8.

**7. Handling and storage****Preventive measures for safe handling**

**Advice on safe handling** Use personal protection equipment. Do not breathe vapor or mist. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharges. Use with local exhaust ventilation. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. In case of insufficient ventilation, wear suitable respiratory equipment.

**Precautions for safe handling**

**General hygiene considerations** Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product.

#### Conditions for safe storage, including any incompatibilities

**Storage Conditions** Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labeled containers. Store in accordance with the particular national regulations. Store in accordance with local regulations. Store locked up. Keep out of the reach of children. Store away from other materials.

**Incompatible materials** Strong acids. Strong bases. Strong oxidizing agents.

## 8. Exposure controls/personal protection

#### Control parameters

**Exposure guidelines** This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies

#### Appropriate engineering controls

**Engineering controls** Ensure adequate ventilation, especially in confined areas.

#### Individual protection measures, such as personal protective equipment

**Respiratory protection** In case of insufficient ventilation, wear suitable respiratory equipment.

**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).

**Eye/face protection** Tight sealing safety goggles.

**Skin and 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.

**General hygiene considerations** Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product.

**Environmental exposure controls** Local authorities should be advised if significant spillages cannot be contained.

## 9. Physical and chemical properties

#### Information on basic physical and chemical properties

<u>Property</u>	<u>Values</u>	<u>Method</u>	<u>Remarks</u>
<b>Appearance</b>			
Physical state	: Liquid		
Color	: Yellowish clear		
Odor	: Aromatic		
Odor threshold	: No data available		
pH	: 4.7 - 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	: 63	EEC A.9	
Evaporation rate	: No data available		
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	: 0.93 - 1.03	CIPAC MT 3.3	20 °C
Solubility(ies) mg/l	: No data available		
Partition coefficient Log Pow	:		See Section 12 for additional Ecological Information
Autoignition temperature °C	: 455	EEC A.15	
Decomposition temperature °C	: No data available		
Kinematic viscosity mm <sup>2</sup> /s 40 °C	: 4.6	ISO 2431 (1993)	
Explosive properties	: Not an explosive	EEC A.14	
Oxidizing properties	: Not oxidizing	EEC A.21	
Surface tension	: No data available		
Particle Size	: Not applicable		

**Other information**

Bulk density g/ml : Not applicable

**10. Stability and reactivity****Reactivity**

Reactivity No information available.

**Chemical stability**

Stability Stable under normal conditions.

**Explosion data**

Sensitivity to mechanical impact None.

Sensitivity to static discharge Yes.

**Possibility of hazardous reactions**

Possibility of hazardous reactions None under normal processing.

**Conditions to avoid**

Conditions to avoid Heat, flames and sparks.

**Incompatible materials**

Incompatible materials Strong acids. Strong bases. Strong oxidizing agents.

**Hazardous decomposition products**

Hazardous decomposition products None known based on information supplied.

**11. Toxicological 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 423	
Dermal LD50 mg/kg	: > 2000	Rat	OECD 402	
Inhalation LC50 LC50	: > 5.15	Rat	OECD 403	
Skin corrosion/irritation	: Non-irritating to the skin	Rabbit	OECD 404	
Serious eye damage/eye irritation	: Causes serious eye damage	Rabbit	OECD 405	
Sensitization	: Not a skin sensitizer	Guinea pig	OECD 406	

**Chronic toxicity****Germ cell mutagenicity****Chemical name**

Fluroxypyr-meptyl : Not classified

**Carcinogenicity****Chemical name**

Fluroxypyr-meptyl : Not Carcinogenic

**Reproductive toxicity****Chemical name**

Fluroxypyr-meptyl : Not toxic for the reproductive system

**STOT - Single Exposure****Chemical name**

Fluroxypyr-meptyl : Not classified

**STOT - Repeated Exposure****Chemical name**

Fluroxypyr-meptyl : Not classified

**Aspiration hazard****Chemical name**

Fluroxypyr-meptyl : Not classified

**12. Ecological information****Ecotoxicity****Aquatic toxicity****Acute toxicity**

	<u>Values</u>	<u>Species</u>	<u>Method</u>	<u>Remarks</u>
Fish 96-hour LC50 mg/l	: 21.4	Oncorhynchus mykiss	OECD 203	
Crustacea 48-hour EC50 mg/l	: 21.4	Daphnia magna	OECD 202	
Algae 72-hour EC50 mg/l	: 48.1	P. subcapitata	OECD 201	
Other plants EC50 mg/l	: 52.4	Lemna minor	OECD 221	7 days

**Chronic aquatic toxicity**

	<u>Values</u>	<u>Species</u>	<u>Method</u>	<u>Remarks</u>
Fish NOEC mg/l	: No data available			
Crustacea NOEC mg/l	: No data available			
Algae NOEC mg/l	: 0.8	P.subcapitata	OECD 201	
Other plants NOEC mg/l	: 5.81	Lemna minor	OECD 221	

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

Fluroxypyr-meptyl : &gt; 2000 Bobwhite quail

**Bees Oral LD50 µg/bee****Chemical name**

Fluroxypyr-meptyl : > 100

**Abiotic Degradation****Water DT50 days****Chemical name**

Fluroxypyr-meptyl : 38.1

**Soil DT50 days****Chemical name**

Fluroxypyr-meptyl : 1

**Biodegradation****Chemical name**

Fluroxypyr-meptyl : No data available

**Log Pow****Chemical name**

	<u>Values</u>	<u>Method</u>	<u>Remarks</u>
Fluroxypyr-meptyl	: 5.04		pH 7.0

**Bioconcentration factor (BCF)****Chemical name**

Fluroxypyr-meptyl : 26

**Adsorption/Desorption****Chemical name**

	<u>Values</u>	<u>Method</u>	<u>Remarks</u>
Fluroxypyr-meptyl	: 19550		KOC

### 13. Disposal considerations

**Disposal methods****Waste from residues/unused products**

Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

**Contaminated packaging**

Improper disposal or reuse of this container may be dangerous and illegal.

### 14. Transport information

**ADR**

<b>14.1 UN number</b>	UN3082
<b>14.2 UN proper shipping name</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Fluroxypyr-meptyl)
<b>14.3 Transport hazard class(es)</b>	9
<b>Labels</b>	9
<b>14.4 Packing group</b>	III
<b>Description</b>	UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Fluroxypyr-meptyl), 9, III
<b>14.5 Environmental hazard</b>	Yes
<b>14.6 Special Precautions for Users</b>	
<b>Special Provisions</b>	274, 335, 601, 375
<b>Classification code</b>	M6

**RID**

<b>14.1 UN number</b>	UN3082
<b>14.2 UN proper shipping name</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Fluroxypyr-meptyl)
<b>14.3 Transport hazard class(es)</b>	9
<b>Labels</b>	9
<b>14.4 Packing group</b>	III



<b>Description</b>	UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Fluroxypyr-meptyl), 9, III
<b>14.5 Environmental hazard</b>	Yes
<b>14.6 Special Precautions for Users</b>	
<b>Special Provisions</b>	274, 335, 375, 601
<b>Classification code</b>	M6
<b>IMDG</b>	
<b>14.1 UN number</b>	UN3082
<b>14.2 UN proper shipping name</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Fluroxypyr-meptyl)
<b>14.3 Hazard Class</b>	9
<b>14.4 Packing group</b>	III
<b>Description</b>	UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Fluroxypyr-meptyl), 9, III, Marine pollutant
<b>14.5 Marine pollutant</b>	P
<b>Environmental hazard</b>	Yes
<b>14.6 Special Precautions for Users</b>	
<b>Special Provisions</b>	274, 335, 969
<b>EmS-No</b>	F-A, S-F
<b>IMDG Stowage and segregation</b>	Category A
<b>14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code</b>	No information available
<b>IATA</b>	
<b>14.1 UN number</b>	UN3082
<b>14.2 UN proper shipping name</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Fluroxypyr-meptyl)
<b>14.3 Transport hazard class(es)</b>	9
<b>14.4 Packing group</b>	III
<b>Description</b>	UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Fluroxypyr-meptyl), 9, III
<b>14.5 Environmental hazard</b>	Yes
<b>14.6 Special Precautions for Users</b>	
<b>Special Provisions</b>	A97, A158, A197
<b>ERG Code</b>	9L



## 15. Regulatory information

### Safety, health and environmental regulations specific for the product in question

Registration Requirements: Fertilizer, Farm Feeds, Agricultural Remedies and Stock Remedies Act, 1947 (Act 36 of 1947). Pesticide Handling, Storage and Disposal Safety: SANS10206: 2020. Safety Data Sheet and Occupational Exposure Limit Requirements: Regulations for Hazardous Chemical Agents – 2021 – SA Occupational Health and Safety Act. SANS11014:2010. Control of and handling of poisonous/hazardous and non-poisonous/non-hazardous substances/chemicals in workplaces: Hazardous Substances Act, 1973 (Act No.15 of 1973). Occupational Health and Safety Act No. 85 of 1993.

## 16. Other information

Full text of H-Statements referred to under section 3

H304 - May be fatal if swallowed and enters airways  
 H315 - Causes skin irritation  
 H318 - Causes serious eye damage  
 H319 - Causes serious eye irritation  
 H332 - Harmful if inhaled  
 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

**Date of preparation of the SDS** No data available

**Revision date** 15-Aug-2022

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

#### **Key or legend to abbreviations and acronyms used in the safety data sheet**

IMDG	International Maritime Dangerous Goods (IMDG)
IATA	International Air Transport Association (IATA)
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road

#### **Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation

#### **Abbreviations and 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

#### **The Globally Harmonized System of Classification and Labeling of Chemicals (GHS)**

##### **Classification of the mixture**

H304 - May be fatal if swallowed and enters airways  
 H318 - Causes serious eye damage  
 H336 - May cause drowsiness or dizziness  
 H410 - Very toxic to aquatic life with long lasting effects

##### **Classification procedure**

Classification based on Calculation method  
 Classification based on test data  
 Classification based on Calculation method  
 Classification based on Calculation method

#### **Disclaimer**

The information provided in this 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**