



SAFETY DATA SHEET

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

Galigan 240 EC

Revision date 29-Aug-2022

Version 3 Supersedes Date: 28-Aug-2022

Product Code(s)

HRB00948-27

Print Date 29-Aug-2022

ADM.05600.H.1.C 26783

1. Identification

Product identifier

Galigan 240 EC

Other means of identification

Synonyms	Oxyfluorfen 240 EC
Formulation type	EC
Registration Number(s)	L5782
Pure substance/mixture	Mixture

Recommended use of the chemical and restrictions on use

Recommended use	Herbicide;
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)
Skin corrosion/irritation	Category 2 - (H315)
Serious eye damage/eye irritation	Category 1 - (H318)
Reproductive toxicity	Category 1B - (H360)
Specific target organ toxicity (single exposure)	Category 3 - (H335)
Specific target organ toxicity (repeated exposure)	Category 2 - (H373)

Acute aquatic toxicity	Category 1 - (H400)
Chronic aquatic toxicity	Category 1 - (H410)
Flammable liquids	Category 3 - (H226)

Label elements

Signal word Danger

Hazard pictograms**Hazard statements**

H304 - May be fatal if swallowed and enters airways
 H315 - Causes skin irritation
 H318 - Causes serious eye damage
 H335 - May cause respiratory irritation
 H360 - May damage fertility or the unborn child
 H373 - May cause damage to organs through prolonged or repeated exposure
 H410 - Very toxic to aquatic life with long lasting effects
 H226 - Flammable liquid and vapor

Precautionary statements

P102 - Keep out of reach of children
 P203 - Obtain, read and follow all safety instructions before reuse
 P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
 P240 - Ground/bond container and receiving equipment
 P241 - Use explosion-proof electrical/ ventilating/ lighting/ equipment
 P242 - Use only non-sparking tools
 P243 - Take precautionary measures against static discharge
 P260 - Do not breathe dust/fume/gas/mist/vapors/spray
 P264 + P265 - Wash face, hands and any exposed skin thoroughly after handling. Do not touch eyes
 P270 - Do not eat, drink or smoke when using this product
 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
 P302 + P352 - IF ON SKIN: Wash with plenty of soap and water
 P303 + P361 + P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
 P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 P318 - If exposed or concerned get medical advice.
 P319 - Get medical help if you feel unwell
 P321 - Specific treatment (see supplemental first aid instructions on this label)
 P331 - Do NOT induce vomiting
 P332 + P317 - If skin irritation occurs, Get medical help
 P362+364 - Take off contaminated clothing and wash it before reuse
 P370 + P378 - In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish
 P391 - Collect spillage
 P403 + P233 - Store in a well-ventilated place. Keep container tightly closed
 P403 + P235 - Store in a well-ventilated place. Keep cool
 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**

Oxyfluorfen 240 EC

Chemical name	CAS No	Weight-%	EC No	INTERNATIONAL GHS CLASSIFICATION	M-Factor
Xylene	1330-20-7	54-61	215-535-7	Flam. Liq. 3 (H226) Acute Tox. 4 (H312) Skin Irrit. 2 (H315) Acute Tox. 4 (H332) Eye Irrit. 2 (H319) Asp. Tox. 1 (H304) STOT SE 3 (H335) STOT RE 2 (H373)	
Oxyfluorfen	42874-03-3	21-27	255-983-0	Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	M=10 M=10
N-Methyl-2-pyrrolidone	872-50-4	6-10	212-828-1	Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Repr. 1B (H360) STOT SE 3 (H335)	
Benzenesulfonic acid, mono-C11-13-branched alkyl derivs., calcium salts	68953-96-8	4-7	273-234-6	Acute Tox. 4 (H312)Skin Irrit. 2 (H315)Eye Dam. 1 (H318)Aquatic Chronic 2 (H411)	
Isobutanol	78-83-1	1-3	201-148-0	Skin Irrit. 2 (H315) Eye Dam. 1 (H318) STOT SE 3 (H335) STOT SE 3 (H336) Flam. Liq. 3 (H226)	

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 Galigan 240 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****General advice**

In case of accident or if you feel unwell, seek medical advice immediately (show the label where 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	Call a physician immediately. 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 medical attention if symptoms occur.
Ingestion	Rinse mouth. Do NOT induce vomiting. Get medical attention immediately if symptoms occur.

For emergency responders

Self-protection of the first aider Use personal protective equipment as required.

Most important symptoms/effects, acute and delayed

Symptoms None known.

Indication of immediate medical attention and special treatment needed, if necessary

Note to physicians Treat symptomatically.

5. Fire-fighting measures**Suitable Extinguishing Media**

Suitable Extinguishing Media Dry chemical. Carbon dioxide (CO₂). Water spray. Alcohol resistant foam.

Unsuitable extinguishing media Do not scatter spilled material with high pressure water streams.

Specific hazards arising from the chemical

Specific hazards arising from the chemical Risk of ignition. Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Flammable properties Flammable liquids

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. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Pay attention to flashback. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material.

Environmental precautions

Environmental precautions Refer to protective measures listed in Sections 7 and 8. 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 containment Stop leak if you can do it without risk. Do not touch or walk through spilled material. A vapor suppressing foam may be used to reduce vapors. Dike far ahead of spill to collect runoff water. Keep out of drains, sewers, ditches and waterways. Absorb with earth, sand or other non-combustible material and transfer to containers 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 Ventilate the area. 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. Avoid breathing vapors or mists. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use grounding and bonding connection when transferring this material to prevent static discharge, fire or explosion. Use with local exhaust ventilation. Use spark-proof tools and explosion-proof equipment. Keep in an area equipped with sprinklers. Use according to package label instructions. 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. Remove contaminated clothing and shoes. Take off contaminated clothing and wash before reuse. In case of insufficient ventilation, wear suitable respiratory equipment.

Precautions for safe handling

General hygiene considerations Do not eat, drink or smoke when using this product. Avoid contact with skin, eyes or clothing.

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. Do not store near combustible materials. Keep in an area equipped with sprinklers. 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

Chemical name	ACGIH TLV
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Xylene 1330-20-7	STEL: 150 ppm TWA: 100 ppm
Isobutanol 78-83-1	TWA: 50 ppm

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	Do not eat, drink or smoke when using this product. Avoid contact with skin, eyes or clothing.
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>
Appearance			
Physical state	: Liquid		
Color	: amber to brown		
Odor	: Aromatic		
Odor threshold	: No data available		
pH	: 5 - 7	CIPAC MT 75	
Melting point / freezing point °C	: ----		
Boiling point / boiling range °C	: No data available		
Flash point °C	: 29.5	CIPAC MT 12.2	
Evaporation rate	: No data available		
Flammability (solid, gas)	: Not applicable		
Upper/lower flammability or explosive limits	: No data available		
Vapor pressure kPa	: ----		
Vapor density	: No data available		
Relative density	: 0.98 - 1.00	CIPAC MT 3.1	20 °C
Solubility(ies) mg/l	: ----		
Partition coefficient Log Pow	:		See Section 12 for additional Ecological Information
Autoignition temperature °C	: 450		
Decomposition temperature °C	: No data available		
Kinematic viscosity mm²/s 40 °C	: ----		No data available
Explosive properties	: Not an explosive		
Oxidizing properties	: No data available		
Surface tension	: 28.5		mN/m

Particle Size : Not applicable

Other information

Bulk density g/ml : ----

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	: 4599	Rat	EPA 81-1	
Dermal LD50 mg/kg	: > 4000	Rat	EPA 81-2	
Inhalation LC50 LC50	: > 5	Rat	EPA 81-3	
Skin corrosion/irritation	: Irritating to skin	Rabbit	EPA 81-5	
Serious eye damage/eye irritation	: Severely irritating to eyes	Rabbit	EPA 81-4	
Sensitization	: Not a skin sensitizer	Guinea pig	EPA 81-6	

Chronic toxicity

Germ cell mutagenicity

Chemical name

Oxyfluorfen : Not classified

Carcinogenicity

Chemical name

Oxyfluorfen : Not Carcinogenic

Reproductive toxicity

Chemical name
Oxyfluorfen : Not toxic for the reproductive system

STOT - Single Exposure

Chemical name
Oxyfluorfen : No data available

STOT - Repeated Exposure

Chemical name
Oxyfluorfen : No data available

Aspiration hazard

Chemical name
Oxyfluorfen : No data available

12. Ecological information

Ecotoxicity**Aquatic toxicity**

	<u>Values</u>	<u>Species</u>	<u>Method</u>	<u>Remarks</u>
Acute toxicity				
Fish 96-hour LC50 mg/l	: 25	Oncorhynchus mykiss	OECD 203	
Crustacea 48-hour EC50 mg/l	: 2.8	Daphnia magna	OECD 202	
Algae 72-hour EC50 mg/l	: 0.1	Algae		
Other plants EC50 mg/l	: No data available			

Chronic aquatic toxicity

	<u>Values</u>	<u>Species</u>	<u>Method</u>	<u>Remarks</u>
Chronic aquatic toxicity				
Fish NOEC mg/l	: No data available			
Crustacea NOEC mg/l	: No data available			
Algae NOEC mg/l	: No data available			
Other plants NOEC mg/l	: No data available			

Terrestrial Toxicity

Birds Oral LD50 mg/kg
Chemical name
Oxyfluorfen : > 947 Bobwhite quail .?

Bees Oral LD50 µg/bee

Chemical name
Oxyfluorfen : > 100

Abiotic Degradation

Water DT50 days
Chemical name
Oxyfluorfen : ---- Stable

Soil DT50 days

Chemical name
Oxyfluorfen : 68 - 533

Biodegradation

Chemical name
Oxyfluorfen : No data available

Log Pow

	<u>Values</u>	<u>Method</u>	<u>Remarks</u>
Chemical name			
Oxyfluorfen	: 4.86	EEC A.6	

Bioconcentration factor (BCF)

Chemical name

Oxyfluorfen : No data available

Adsorption/Desorption

Chemical name

Oxyfluorfen : 7565 KOC

13. Disposal considerationsDisposal methods**Waste from residues/unused products**

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

Contaminated packaging

Empty containers pose a potential fire and explosion hazard. Do not cut, puncture or weld containers.

14. Transport informationADR

14.1 UN number UN1993
 14.2 UN proper shipping name FLAMMABLE LIQUID, N.O.S. (Xylene)
 14.3 Transport hazard class(es) 3
 Labels 3
 14.4 Packing group III
 Description UN1993, FLAMMABLE LIQUID, N.O.S. (Xylene), 3, III, (D/E), Environmentally Hazardous
 14.5 Environmental hazard Yes
 14.6 Special Precautions for Users
 Special Provisions 274, 601
 Classification code F1
 Tunnel restriction code (D/E)

RID

14.1 UN number UN1993
 14.2 UN proper shipping name FLAMMABLE LIQUID, N.O.S. (Xylene)
 14.3 Transport hazard class(es) 3
 Labels 3
 14.4 Packing group III
 Description UN1993, FLAMMABLE LIQUID, N.O.S. (Xylene), 3, III, Environmentally Hazardous
 14.5 Environmental hazard Yes
 14.6 Special Precautions for Users
 Special Provisions 274, 601
 Classification code F1

IMDG

14.1 UN number UN1993
 14.2 UN proper shipping name FLAMMABLE LIQUID, N.O.S. (Xylene, Oxyfluorfen)
 14.3 Hazard Class 3
 14.4 Packing group III
 Description UN1993, FLAMMABLE LIQUID, N.O.S. (XYLENE), 3, III, (29.5°C C.C.), Marine pollutant
 14.5 Marine pollutant P
 Environmental hazard Yes
 14.6 Special Precautions for Users
 Special Provisions 223, 274, 955
 EmS-No F-E, S-E
 IMDG Stowage and segregation Category A

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code No information available

IATA

14.1 UN number	UN1993
14.2 UN proper shipping name	FLAMMABLE LIQUID, N.O.S. (Xylene)
14.3 Transport hazard class(es)	3
14.4 Packing group	III
Description	UN1993, FLAMMABLE LIQUID, N.O.S. (Xylene), 3, III
14.5 Environmental hazard	Yes
14.6 Special Precautions for Users	
Special Provisions	A3
ERG Code	3L



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

H226 - Flammable liquid and vapor
H304 - May be fatal if swallowed and enters airways
H312 - Harmful in contact with skin
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
H360 - May damage fertility or the unborn child
H373 - May cause damage to organs through prolonged or repeated exposure
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

Date of preparation of the SDS	No data available
Revision date	29-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
H315 -	Causes skin irritation
H318 -	Causes serious eye damage
H335 -	May cause respiratory irritation
H360 -	May damage fertility or the unborn child
H373 -	May cause damage to organs through prolonged or repeated exposure
H400 -	Very toxic to aquatic life
H410 -	Very toxic to aquatic life with long lasting effects
H226 -	Flammable liquid and vapor

Classification procedure

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

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