SAFETY DATA SHEET

Klartan 240 EW

Revision Date 05-Sep-2019 **Version** 1 **Product No** INS00027-27
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Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product identifier

Klartan 240 EW

Pure substance/mixture Mixture

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

Recommended Use Insecticide
Uses advised against No information available

Details of the supplier of the safety data sheet

Supplier Address ADAMA SOUTH AFRICA (PTY) LTD
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Section 2: HAZARDS IDENTIFICATION

Classification of the substance or mixture

Acute aquatic toxicity Category 1 - (H400)
Chronic aquatic toxicity Category 1 - (H410)

Label Elements

Hazard pictograms

Signal word Warning

Hazard Statements H410 - Very toxic to aquatic life with long lasting effects

Precautionary Statements P102 - Keep out of reach of children
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
Tau fluvalinate	20-24	102851-06-9		Acute Tox. 4 (H302) Skin Irrit. 2 (H315) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	M = 1000 M=1000
Hydrocarbons, C9, aromatics	3-4	N/A	918-668-5	Flam. Liq. 3 (H226) STOT SE 3 (H335) STOT SE 3 (H336) Asp. Tox. 1 (H304) Aquatic Chronic 2 (H411)	
Methanol	0.2-0.5	67-56-1	200-659-6	Acute Tox. 3 (H301) Acute Tox. 3 (H311) Acute Tox. 3 (H331) STOT SE 1 (H370) Flam. Liq. 2 (H225)	

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 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
Use personal protective equipment as required. Avoid contact with eyes and skin. 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

Prevent entry into waterways, sewers, basements or confined areas. 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. Do not allow into any sewer, on the ground or into any body of water. Local authorities should be advised if significant spillages cannot be contained.

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 personal protective equipment as required. Use only with adequate ventilation. Use with local exhaust ventilation. Do not breathe dust/fume/gas/mist/vapors/spray.

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

Conditions for safe storage, including any incompatibilities

Storage Conditions
Keep container tightly closed. Keep out of the reach of children. Keep containers tightly closed in a cool, well-ventilated place. Keep in properly labeled containers. Keep container tightly closed in a dry and 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
Methanol 67-56-1	TWA: 200 ppm TWA: 260 mg/m³ Skin	STEL: 250 ppm STEL: 333 mg/m³ TWA: 200 ppm TWA: 266 mg/m³ Skin	TWA: 200 ppm TWA: 260 mg/m³ STEL: 1000 ppm STEL: 1300 mg/m³	S* TWA: 200 ppm TWA: 266 mg/m³	TWA: 200 ppm TWA: 270 mg/m³ Ceiling / Peak: 800 ppm Ceiling / Peak: 1080 mg/m³ Skin

Chemical Name	Italy	Portugal	Netherlands	Finland	Denmark
Methanol 67-56-1	TWA: 200 ppm TWA: 260 mg/m³ Skin	STEL: 250 ppm TWA: 200 ppm	Skin TWA: 133 mg/m³ TWA: 100 ppm	TWA: 200 ppm TWA: 270 mg/m³ STEL: 250 ppm STEL: 330 mg/m³ Skin	TWA: 200 ppm TWA: 260 mg/m³ Skin

Chemical Name	Austria	Switzerland	Poland	Norway	Ireland
Methanol 67-56-1	Skin STEL 800 ppm STEL 1040 mg/m³ TWA: 200 ppm TWA: 260 mg/m³	Skin STEL: 800 ppm STEL: 1040 mg/m³ TWA: 200 ppm TWA: 260 mg/m³	STEL: 300 mg/m³ TWA: 100 mg/m³ Skin	TWA: 100 ppm TWA: 130 mg/m³ Skin STEL: 150 ppm STEL: 162.5 mg/m³	TWA: 200 ppm TWA: 260 mg/m³ Skin

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

Environmental exposure controls Do not allow into any sewer, on the ground or into any body of water. Local authorities should be advised if significant spillages cannot be contained. Prevent product from

entering drains.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties

Property		Values	Method	Remarks
Appearance				
Physical state	:	liquid		
Color	:	Grey to white		
Odor	:	Weak		
Odor threshold	:	No data available		
pH	:	5-6	CIPAC MT 75.2	solution (1 %)
Melting point/freezing point °C	:	No data available		
Boiling point/boiling range °C	:	No data available		
Flash point °C	:	>95	92/69/EEC A.9	Not determined
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	:	1.08-1.10	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	:	455	92/69/EEC A.15	
Decomposition temperature °C	:	No data available		
Kinematic viscosity mm2/s 40 °C	:	257.4		at 20°C
Explosive properties	:	Not an explosive	92/69/EEC A.14	
Oxidizing properties	:	No data available		

Other Information

Bulk density g/ml	:	----	Not Applicable
Surface tension mN/m	:	----	No data available

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

		Values	Species	Method	Remarks
Oral LD50 mg/kg	:	2020	Rat	EPA 1978	
Dermal LD50 mg/kg	:	>2100	Rabbit	EPA 1978	
Inhalation LC50 mg/l/4h	:	>2.94	Rat	OECD 403	Maximum attainable concentration
Skin corrosion/irritation	:	Non-irritating to the skin	Rabbit	EPA OPTS	
Serious eye damage/eye irritation	:	Not irritating to eyes	Rabbit	EPA OPTS	
Respiratory/skin sensitization	:	Not a skin sensitizer	Guinea pig	OECD 406	

Chronic toxicity

Germ cell mutagenicity
Chemical Name
Tau fluvalinate : Not classified

Carcinogenicity .
Chemical Name
Tau fluvalinate : Not Carcinogenic

Reproductive toxicity .
Chemical Name
Tau fluvalinate : Not toxic for the reproductive system

STOT - single exposure
Chemical Name
Tau fluvalinate : No data available

STOT - repeated exposure
Chemical Name
Tau fluvalinate : No data available

Aspiration hazard
Chemical Name
Tau fluvalinate : No data available

Section 12: ECOLOGICAL INFORMATION

Toxicity

Aquatic toxicity

Acute toxicity		Values	Species	Method	Remarks
Fish 96-hour LC50 mg/l	:	>0.01	Oncorhynchus mykiss	OECD 203	Static
Crustacea 48-hour EC50 mg/l	:	0.00259	Daphnia magna	USEPA 660/3	
Algae 72-hour EC50 mg/l	:	42	Scenedesmus subspicatus	OECD 201	
Other plants EC50 mg/l	:				No data available

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	:	No data available			

Other plants NOEC mg/l : No data available

Terrestrial Toxicity
Birds Oral LD50 mg/kg
Chemical Name
Tau fluvalinate : >455

Bees Oral LD50 µg/bee
Chemical Name
Tau fluvalinate : 12.6 OECD 213 OECD 214

Persistence and degradability

Abiotic Degradation	Values	Method	Remarks
Water DT50 days			
Chemical Name			
Tau fluvalinate	: 1.96	EPA-FIFRA 162-4	

Soil DT50 days
Chemical Name
Tau fluvalinate : 31

Biodegradation
Chemical Name
Tau fluvalinate : Not readily biodegradable

Bioaccumulative potential

Partition Coefficient (n-octanol/water) Partition Coefficient (n-octanol/water) Log Pow	Values	Method	Remarks
Chemical Name			
Tau fluvalinate	: 7.02		pH 7

Bioconcentration factor (BCF)
Chemical Name
Tau fluvalinate : 1979

Mobility in soil

Adsorption/Desorption	Values	Method	Remarks
Chemical Name			
Tau fluvalinate	: 750746		Koc

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 *	3082
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Tau-fluvalinate)
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. (Tau-fluvalinate)
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. (Tau-fluvalinate)
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

H225 - Highly flammable liquid and vapor
H226 - Flammable liquid and vapor
H301 - Toxic if swallowed
H302 - Harmful if swallowed

H304 - May be fatal if swallowed and enters airways
H311 - Toxic in contact with skin
H315 - Causes skin irritation
H331 - Toxic if inhaled
H335 - May cause respiratory irritation
H336 - May cause drowsiness or dizziness
H370 - Causes damage to organs if inhaled
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
EUH066 - Repeated exposure may cause skin dryness or cracking

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