Safety Data Sheet (SDS) Hexazinone 240 SL

According to UN GHS 8th Ed
Revision Date: 28/08/2022

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Version: 1.1

SECTION 1. IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY/UNDERTAKING

Product identifier:

Identification as on the label/Trade name: Hexazinone 240SL

Common Name: Hexazinone 240 g/ℓ SL

Relevant identification uses of the substance and uses advised against:

Identified uses: Insecticide

Uses advised against: Use only as directed.

Details of the supplier of the Safety Data Sheet:

Enviro Bio-Chem (Pty) Ltd, 44 Kerk Street,
Lichtenburg, North West, South Africa, 2740

Details of the Registration Holder:

Erintrade cc t/a RT Chemicals44 Kerk Street,
Lichtenburg, North West, South Africa, 2740

Contact Details:

Telephone: +27 87 231 7261
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Website: www.envirobiochem.co.za

Emergency telephone numbers:

24 Hour Emergency Number: Bateleur: +27 83 123 3911
Griffon Poison Information Centre: +27 82 446 8946
Poisons Information Helpline: 0861 555 777
Tygerberg Hospital: +27 21 931 6129

SECTION 2. HAZARD IDENTIFICATION

Classification of the substances or mixture

The mixture is classified according to Regulation (EC) No 1272/2008 EU-GHS/CLP

Hazard classes/Hazard categories	Hazard statement
Flammable Liquid (Category 2)	H225
Skin corrosion (Category 1A)	H314
Eye irritation (Category 2)	H319
Aquatic Toxicity Acute (Category 1)	H400
Aquatic Toxicity Chronic (Category 1)	H411

For full text of H statements see section 16

The most important adverse effects

The most important adverse physiochemical effects: Highly flammable liquid and vapour

The most important adverse human health effects: May be fatal if ingested and aspiration occurs. Causes severe skin burns and eye damage.

Label elements

Hazard pictograms:
Signal Word: Danger

Hazard Statements:

H225	Highly Flammable liquid and vapour
H314	Causes severe skin burns and eye damage
H319	Causes serious eye irritation
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects

Precautionary Statements:

P102	Keep out of reach of children
P201	Obtain special instructions before use
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P264	Wash hands and face thoroughly after handling.
P273	Avoid release into the environment.
P280	Wear impervious rubber gloves and boots, protective clothing and chemical safety goggles.
P301/330/331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303/361/353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water and non-abrasive soap.
P305/351/338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISION CENTRE.
P337/313	If eye irritation persists: Get medical advice.
P391	Collect spillage.
P403/P233	Store in a well-ventilated place. Keep container tightly closed.
P501	Dispose of content/container to suitable landfill in accordance with local regulations.

Other hazards: No data available

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

Substance/Mixture: **Mixture**

Ingredients:

Substance name (IUPAC)	CAS Number.	Concentration % by weight	Classification EC1272/2008
Hexazinone	51235-04-2	32.7%	Acute Toxicity -Oral (Category 4) H302 Eye irritation (Category 2) H319 Aquatic Acute (Category 1) H400 Aquatic Chronic (Category 1) H410
Ethanol	64-17-5	< 35%	Flammable liquid (Category 2) H225 Serious eye damage/ Irritation (Category 2A) H319
Acetic acid	1186-52-3	< 10%	Flammable liquids (Category 3), H226 Skin corrosion (Category 1A), H314

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.
Occupational exposure limits, if available, are listed in Section 8.

SECTION 4. FIRST AID MEASURES

Description of first aid measures:

In case of inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

In case of skin contact: In case of contact, Remove contaminated clothing and shoes. Gently wipe off excess chemical. Wash skin gently and thoroughly with water and non-abrasive soap. Obtain medical attention if irritation persists.

In case of eye contact: Flush eyes with clean water for at least 15 – 20 minutes. Lift eyelids to facilitate irrigation. If present, remove contact lenses after 5 minutes and continue rinsing. Seek medical attention immediately.

In case of ingestion Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms and effects, both acute and delayed:

Inhalation: Hazardous in case of inhalation product is a lung irritant. Inhalation of the spray mist may produce severe irritation of respiratory tract, characterized by coughing, choking, or shortness of breath. Over-exposure by inhalation may cause respiratory irritation.

Ingestions: Harmful if swallowed.

Skin contact: Causes severe skin burns.

Eye contact: Causes serious eye damage

Mutagenic: Suspected of causing genetic defect

Indication of any immediate medical attention and special treatment needed:

Treat symptomatically and supportively.

SECTION 5. FIRE FIGHTING MEASURES

Extinguisher media:

Suitable extinguisher media: Foam. Dry powder. Carbon dioxide. Water spray.

Unsuitable extinguishing media**:** Do not use high volume water jet, due to contamination risk.

Specific hazards arising from the mixture:

Flammable liquid and vapour. Runoff to sewer may create fire or explosion hazard. This material is very toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Hazardous decomposition products in case of fire: Refer to Section 10: Stability and Reactivity.

Advice for fire-fighters:

Avoid inhaling hazardous vapours. Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear. Use an approved/certified respirator or equivalent.

Contain fire control agents for later disposal according to Section 13.

Water can be used to cool unaffected containers.

SECTION 6. ACCIDENTAL RELEASE

Personal precautions, protective equipment, and emergency procedures:

For non-emergency personnel: Keep all personal away may be harmful by inhalation. Do not breathe in spray or fumes. Avoid contact with eyes and skin.
For emergency responders: Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear. Use an approved/certified respirator or equivalent Avoid contact with eyes and skin. Do not breathe in irritating or poisonous fumes. Refer to section 8 for recommended personal protective equipment. Evacuate unnecessary personnel.

Environmental precautions:

Stop leak if without risk. Do not touch spilled material. Use a light water spray to reduce vapours.
Prevent entry into drains, watercourses, or confined areas; dike if needed.
If the product contaminates public water, inform appropriate authorities immediately in accordance with local regulations.
Dispose in a safe manner in accordance with local/national regulations.

Methods for containment and cleaning up:

For small spills Contain spilled material if possible. Collect in suitable and properly labelled containers. Absorb with materials such as: sand, earth, vermiculite, or diatomaceous earth
For large spills Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements, or confined areas. Contain and collect spillage with noncombustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling:

This product is flammable. Harmful if swallowed. Harmful if inhaled. Causes severe skin burns and eye damage. Suspected of causing genetic effects . May cause damage to organs through prolonged exposure to organs. Use with adequate ventilation. Eating, drinking, and smoking should be prohibited in areas where this material is handled, stored, and processed.Workers should wash hands and face before eating, drinking, and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Do not get in eyes or on skin or clothing.
Protective measures: Observe directions on label and instructions for use.
Advice on general occupational hygiene: Do not eat drink or smoke when handling this product.

Conditions for safe storage, including incompatibilities:

Store in the original container in a cool, dry, ventilated, locked place out of direct sunlight and out of the reach of children and uninformed persons. Store away from food, feed, drink, and tobacco products. Store where streams and underground water cannot be accidentally contaminated. Keep the container closed when not in use.

Specific end uses:

Use as directed. Use original container.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters:

Acceptable Daily Intake (ADI): No data available
Exposure Limits: No data available

Exposure control:

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. A Risk Assessment should be conducted before handling is to commence to determine specific exposure control.

Appropriate engineering controls: It is essential to provide adequate ventilation. Provide explosion proof local exhaust ventilation or other suitable engineering controls. Ensure that eye wash stations and safety showers are proximal to the work-station location.

Hygiene measures: Wash hands, forearms, and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection: Avoid contact with eyes. Wear a full-face shield when handling the product or spraying. The use of safety glasses with side shields (or goggles) are recommended if a face shield is not used.

Hand protection: Use chemical resistant gloves. Examples of preferred glove barrier materials include Nitrile/butadiene rubber, Polyethylene, Ethyl vinyl alcohol laminate, Polyvinyl alcohol, Polyvinyl chloride.

Body protection: Full body covering, shoes and socks. Appropriate impervious clothing is required to prevent skin contact with the product.

Respiratory protection: Work only in a well-ventilated area. Respiratory protection is required; a properly fit-tested respirator fitted with organic vapour cartridges is required.

Environmental exposure controls: Prevent product from entry into sewers and water courses

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Liquid
Colour	Light yellow to colourless
Odour	Alcoholic
Odour threshold	No data available
pH	No data available
Melting point / freezing point (° C)	No data available
Boiling point (° C)	No data available
Flash point (° C)	23-25 °C (closed cup).
Evaporation rate	No data available
Flammability	Flammable liquid. Vapor forms explosive mixture with air. Heating can release vapors which can be ignited.
Upper /lower flammability limits	No data available
Vapour pressure 20°C	33 mm Hg at 25 ˚C
Vapour density	No data available
Relative density (25°C)	0.96
Water solubility (g/l) at 20°C	Dispersible
Partition coefficient : n-octanol/water	No data available
Auto-ignition temperature (° C)	No data available
Decomposition temperature (° C)	No data available
Viscosity, dynamic (mPa s)	No data available
Explosive properties Explosive limits, vol% in air	No data available
Oxidising properties	No data available
Explosive limits	No data available

SECTION 10. STABILTY AND REACTIVITY

Reactivity:

The product is stable under normal conditions. Hydrolysis above pH 7.

Chemical stability:

Stable under normal storage conditions for 2 years. Avoid excessive heat sources.

Possibility of hazardous reactions:

No information available.

Conditions to avoid:

Avoid direct sunlight, open flames, ignition sources, high temperatures, sources of heat.

Incompatible materials:

Incompatible with strong acids and bases.

Hazardous decomposition products: None known

SECTION 11. TOXICOLOGICAL INFORMATION

Toxicokinetics, metabolism and distribution: No data available

Information on toxicological effects:

Assessment of acute toxicity:

The product has not been tested. The data reported is for the main ingredients in the mixture.

Hexazinone CAS No. 51235-04-2	
Acute toxicity:	
Acute Oral LD50 (rat)	1690 mg/kg
Acute Dermal LD50 (rabbit):	>5278 mg/kg
Acute Inhalation LC50 - 4 h (rat)	>7.4 mg/l
Skin irritation/ corrosion	Not a skin irritant
Eye damage / irritation	Causes eye irritation
Respiratory or skin sensitization	Not a skin sensitiser
Germ cell mutagenicity	No data available
Carcinogenicity	No data available
Reproductive toxicity	No data available
Specific Target Organ Toxicity STOT single exposure	No data available
Specific Target Organ Toxicity STOT repeated exposure	No data available
Aspiration hazard	No data available

Additional Information:

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Ethanol CAS No. 64-17-5	
Acute toxicity:	
Acute Oral LD50 (rat male and female)	10470 mg/kg
Acute Dermal LD50 (rat):	No data available
Acute Inhalation LC50 - 4 h	124.7 mg/l
Skin irritation/ corrosion (rabbit)	No Skin irritation
Eye damage / irritation (rabbit)	Causes serious eye irritation
Respiratory or skin sensitization (Guinea pig)	Not a skin or respiratory sensitiser
Germ cell mutagenicity Ames test Salmonella typhimurium Result: negative In vitro mammalian cell gene mutation test mouse lymphoma cells Result: negative OECD Test Guideline 478 Mouse - male Result: Positive results were obtained in some in vivo tests.	
Carcinogenicity	No data available
Reproductive toxicity	No data available
Specific Target Organ Toxicity STOT single exposure	No data available
Specific Target Organ Toxicity STOT repeated exposure	No data available
Aspiration hazard	No data available

Additional Information:

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Acetic acid CAS No. 1186-52-3	
Acute toxicity:	
Acute Oral LD50 (rat - male)	No data available
Acute Dermal LD50 (rabbit):	No data available
Acute Inhalation LC50 - 4 h (rat)	No data available
Skin irritation/ corrosion (rabbits)	Causes severe skin irritation / corrosion
Eye damage / irritation (rabbits)	Causes severe eye irritation / corrosion
Respiratory or skin sensitization	No data available
Carcinogenicity	No data available
Reproductive toxicity	No data available
Specific Target Organ Toxicity STOT single exposure	No data available
Specific Target Organ Toxicity STOT repeated exposure	No data available
Aspiration hazard	No data available

Additional Information: Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., Cough, Shortness of breath, Headache, Nausea

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

SECTION 12. ECOLOGICAL INFORMATION

Hexazinone CAS No. 51235-04-2	
Toxicity	
Birds Acute oral LD50 Dietary LC50 8 days	 >2258 mg/kg Bobwhite quail >5620 mg/kg diet Bobwhite quail ; >10000 mg/kg Mallard ducks
Aquatic Toxicity Fish LC_{50} (96 hr) Aquatic Toxicity Daphnia EC_{50} (48 hr) Toxicity to algae – static test EC50 (120h) Toxicity to bees LD_{50} (oral and contact)	>320 mg/l Rainbow trout ; >370 mg/l, Bluegill sunfish 152 mg/l 0.007 mg/l for green algae (*Selenastrum Capricornutum*) >60 µg/bee.
Persistence and degradability	Microbial degradation contributes to decomposition in soil. The triazine ring is broken to liberate CO2. It shows a relative resistance to decomposition by ultra violet radiation. It slowly degrades in distilled water (under “artificial sunlight” about 20% in 8 weeks). The rate of photo degradation is about three times faster when small amounts of inorganic salts are present. In photo degradation studies on thin soil surfaces, 60% of the applied 14C material (10 ppm) was degraded during a 6-week exposure to UV light. Volatilization losses are negligible
Bioaccumulation potential	No data available
Mobility in Soil	Hexazinone is very poorly adsorbed to soil particles, very soluble in water, and slowly degraded, so it is likely to be mobile in most soils and has the potential to contaminate groundwater. Freundlich isotherm constants (K-values) on Fallsington sandy-loam and Flanagan silt-loam were r0.2 (slope 0.95) and 1.0 (slope 1.05) respectively.
Result of PBT and vPvB assessment	No data available
Other adverse effects	No data available

Ethanol CAS No. 64-17-5	
Toxicity	
Aquatic Toxicity Fish LC_{50} (96 hr) Aquatic Toxicity Daphnia EC_{50} (48 hr) Toxicity to algae ErC_{50} (72h) Toxicity to bacteria Static Test IC50 (3h)	15300 mg/l - *Pimephales promelas* (fathead minnow) 5012 mg/l *Ceriodaphnia dubia* (water flea) 275 mg/l for *Chlorella vulgaris* (Fresh water algae) >1000 mg/l -activated sludge
Persistence and degradability	Readily biodegradable
Bioaccumulation potential	Due to the distribution coefficient n-octanol/water, accumulation in organisms is not expected.
Mobility in soil	No data available
Result of PBT and vPvB assessment	No data available
Other adverse effects	No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Waste treatment methods:

Product:

Keep out of drains, sewers, ditches, and waterways. Refer to container label for disposal information. Treat as hazardous waste and dispose of in accordance with local/ regional/ national/ international regulations.

Container:

Refer to container label for disposal information. Triple or pressure rinse empty containers. Pour rinse water into spray tank. Dispose of as hazardous waste. Do not contaminate water when disposing of rinse water. Dispose of using an approved waste disposal service provider. Follow all local/ regional/ national/ international regulations.

SECTION 14. TRANSPORT INFORMATION

UN Number	2924
UN proper shipping name	Flammable Liquid, Corrosive N.O.S. (Hexazinone 240 g/l)
Transport hazard class	3 (8)
Packaging group	III
Marine pollutant	Yes

SECTION 15. REGULATORY INFORMATION

Safety, health, and environmental regulations/legislation for the mixture:

Relevant information regarding authorization: Occupational Health and Safety Act 1993. Regulation for Hazardous Chemical Agents, 2021.UN Recommendations on the Transport of Dangerous Goods Model Regulations Rev. 21 (2019), Globally Harmonized System of Classification and Labelling of Chemicals (GHS) Rev 8, 2019.

Relevant information regarding restrictions:

EU regulations: Regulation EC 1272/2008 [EU-GHS/CLP]

Other National regulations:

National Road Traffic Act, 1996 (ACT NO. 93 of 1996).

SANS 10228:2012- The identification and classification of dangerous goods for transport by road and rail modes.

National Environmental Management Waste Act 59 of 2008.

Act 36 of 1947 of the Republic of South Africa. This product is registered under it is a violation of South African law to use this product in any manner inconsistent with its approved labelling. Read and follow all label directions

Chemical Safety Assessment carried out? No

SECTION 16. OTHER INFORMATION

Indication of changes:

Classification according to SANS 10234:2019, Regulation EC 1272/2008 [EU-GHS/CLP]
GHS aligned – all sections

Relevant H statements (number and full text): Section 3

H302-Harmful if swallowed
H226-Flammable liquid and vapour

Training instructions:

Use as indicated on the label, special training may be required for application.

Further information:

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

The information on this sheet is not a specification; it does not guarantee specific properties. The information is intended to provide general guidance as to health and safety based upon our knowledge of the handling, storage, and use of the product. It is not applicable to unusual or non-standard uses of the product, nor where instructions or recommendations are not followed.