

**TIDE INTERNATIONAL USA, INC.**

-A DIVISION OF TIDE GROUP

REVISION DATE: 11/30/2017 VERSION 2.0

[1. Identification]

Product name: Tide Hexazinone 2SL

Chemical name: [3-cyclohexyl-6-(dimethylamino)-1-methyl-1,3,5-triazine-2,4(1H,3H)-dione]

Chemical family: Triazines

EPA Reg. No.: 84229-35

Recommended Use: Herbicide

Supplier: Tide International, USA, INC.
21 Hubble, Irvine, CA 92618
1-949-679-3535

For medical or chemical*
emergencies: Call CHEMTREC®: 1-800-424-9300 (24 hours/day)

*Spill, leak, fire, exposure or
accident

For non-emergency product
information: Call the NATIONAL PESTICIDE INFORMATION CENTER
1-800-858-7378 (Monday - Friday, 8-12 PM Pacific time)

[2. Hazard(s) Identification]**According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR §1910.1200 (2012)****Classification of the substance or mixture**

Flammable liquid (Category 3)

Acute Oral (Category 5)

Acute Dermal (Category 5)

Acute Inhalation (Category 4)

Eye irritation (Category 2B)

Acute aquatic toxicity (Category 1)

GHS pictograms**Signal Word: WARNING****GHS Hazard Statements:**

H226 Flammable liquid and vapour

H303 May be harmful if swallowed

H313 May be harmful in contact with skin

H332 Harmful if inhaled

H320 Causes eye irritation

H400 Very toxic to aquatic life

Precautionary Statements:**Prevention:**

- P210 Keep away from heat/hot surfaces/sparks/open flames and other ignition sources. No smoking.
- P233 Keep container tightly closed.
- P240 Ground and bond container and receiving equipment.
- P241 Use explosion-proof electrical/ventilating/lighting equipment.
- P242 Use non-sparking tools.
- P243 Take action to prevent static discharge.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P261 Avoid breathing dust/fume/gas/mist/vapors/spray.
- P271 only outdoors or in a well ventilated area.
- P264 Wash hands thoroughly after handling.
- P273 Avoid release to the environment correct

Response:

- P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
- P370 + P378 In case of fire: Use foam or dry chemical to extinguish.
- P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- P312 Call a poison center/doctor if you feel unwell
- P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P337 + P313 If eye irritation persists: Get medical advice/attention.
- P391 Collect spillage.

Storage:

- P403 + P235 Store in a well ventilated place. Keep cool.

Disposal:

- P501 Dispose of contents/container in accordance with local/regional/national and international regulations correct

Routes of exposure: Eyes, skin, ingestion & inhalation.

Carcinogenicity: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by IARC, ACIGH, NTP, and OSHA.

Signs and Symptoms of Systemic Effects:

Causes substantial but temporary eye injury. Causes skin irritation. May be fatal if swallowed or if absorbed through skin. Do not get in eyes, on skin, or on clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.

Environmental hazards:

This product is toxic to plants. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge System (NPDES) permit and the permitting authority has been notified in writing before discharge. Harmful to aquatic organisms. Toxic to bees.

[3. Composition / Information on Ingredients]

According to Hazard Communication Standard (HCS) or 29 CFR §1910.1200 (2012).

Active ingredient	CAS No.	Content (w/w,%)	ACGIH
Hexazinone	51235-04-2	25	NA
Ethanol	64-17-5	>35	1900 mg/m ³
Polyoxyethylene sorbitan monopalmitate	9005-66-7	NA	NA
Water	7732-8-5	Balance	NA

[4. First aid measures]

If poisoning occurs, immediately contact a doctor or Poisons Information Centre, and follow the advice given. Show this Material Safety Data Sheet to the doctor.

If inhaled: Remove person to fresh air and keep comfortable for breathing. Call an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a POISON CENTER or doctor if you feel unwell.

If on skin: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Get medical advice/attention. Wash contaminated clothing before reuse.

If in eyes: Hold eyes open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing eye. If eye irritation persists: Get medical advice/attention.

If swallowed: Immediately call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give any thing by mouth to an unconscious person.

Most important symptoms/effects, acute and delayed: No information available.

Note to physician: Probable mucosal damage may contraindicate the use of gastric lavage.

[5. Fire-Fighting measures]

Suitable extinguishing media: Solid stream of water may spread the fire. Do not use full jets of water. Use water spray of fog, foam, dry chemical or CO₂.

Unsuitable extinguishing media: No data available

Special hazards arising from the chemical (hazardous combustion products): Burning will produce hazardous compounds including oxides of carbon, nitrogen,

Special protective equipment and precautions for fire-fighters: Wear protective clothing and self-contained breathing apparatus.

Advice for firefighters: Evacuate nonessential personnel from the area to prevent human exposure to fire, smoke, fumes or products of combustion Prevent use of contaminated buildings, area, and equipment until decontaminated. Dike and collect water used to fight fire to prevent environmental damage due to run off.

[6. Accidental release measures]

Personal precautions, protective equipment and emergency procedures:

Precautions: Isolate hazard area. Keep unauthorized people away. Avoid contact with spilled product or contaminated surfaces. Wear suitable personal protective clothing and equipment. Avoid breathing dust/fume/gas/mist/vapors/spray. Remove contaminated clothing and wash before reuse. Ensure adequate ventilation.

Environmental precautions: Prevent further release of material if safe to do so. Do not flush material into drains, sewers, waterways and/or ground water systems. Consult a regulatory specialist to determine appropriate state or local reporting requirements, for assistance in waste characterization and/or hazardous waste disposal. Do not apply directly to water, or to areas where surface water is present. Do not apply to intertidal areas below the mean high water mark. Do not contaminate water by cleaning of equipment or disposal of equipment washwaters or rinsate.

Methods and materials for containment and cleaning up:

Methods for cleaning up: Spills should be absorbed with sawdust, clay or sand, followed by disposal to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulations

Containment: Isolate spill area. This material will dissolve in water. Stop the source of the release. Contain and isolate to prevent further contamination of the soil, surface water, or ground water.

Large spills should be handled according to a spill plan. Otherwise, in case of emergency call CHEMTREC® day or night, 1-800-424-9300.

[7. Handling and Storage]

Precautions for safe handling:

Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection. Remove contaminated clothing & wash before re-use. Do not breathe vapor or mist. Do not get in eyes, on skin or clothing. Avoid contact with acids, bases and oxidizing agents. Avoid sources of ignition, and sparks. Wash hands thoroughly after handling. Avoid release to the environment. Follow SDS/Label precautions.

Conditions for safe storage:

Store in cool and dry place not to exceed 32°F (0°C), away from alkaline, acidic and oxidizing materials. Do not store near combustible materials and/or direct sunlight. Keep container closed when not in use.

[8. Exposure controls / Personal protection]

Control parameters:

Components.	CAS-No	Control parameters	Basis
Ethanol	64-17-5	1900 mg/m ³	OSHA

Appropriate engineering controls:

Provide adequate ventilation when product is used. Eyewash and shower should be provided in mixing and loading areas.

Personal protective equipment:

Some materials that are chemical-resistant to this product are barrier laminate, butyl rubber, nitrile rubber, and Viton. If you want more options, follow the instructions for category F on an EPA

chemical-resistance category selection chart.

Follow OSHA recommended PPE standard (29CFR1910.132) be conducted before using this product.

Follow Product label-personal protective equipment.

Respiratory protection A NIOSH's respirator is required whenever work place conditions warrant respirator use.

Hand protection Chemical-resistant gloves such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, polyvinyl chloride, or Viton.

Eye protection Use chemical splash goggles and face shield (ANSI Z87.1 or approved equivalent).

Skin and body protection Use impermeable gloves and apron. Chemical resistant gloves.

General protective measures: Handle in accordance with good industrial hygiene and safety practice.

Do not breathe vapor or mist. Do not eat, drink or smoke when using this product. Hands and/or face should be washed before breaks and at the end of the shift. Store work clothing separately.

[9. Physical and chemical properties]

Appearance: Clear-light yellow liquid

Odor: Alcoholic odor.

Odor threshold: No Data Available

PH: 8.36

Melting point/freezing point: 113.6~116.8°C for Technical

Initial boiling point and boiling range: No Data Available

Flashpoint: 78.8°F (26°C)

Evaporation rate: No Data Available

Flammability: Flammable

Upper/lower flammability or explosive limits: No Data Available

Combustible: Yes

Vapor pressure: $<1.33 \times 10^{-5}$ Pa at 25°C for technical

Vapor density: No Data Available

Density: 0.96g/cm³

Solubility: Dispersible in water

Partition coefficient: n-octanol/water: log POW = 1.2 at 25°C and pH 7 for technical

Auto-ignition temperature: Not determined

Decomposition temperature: No Data Available

Viscosity: 0.0046 pascal at 68°F (20°C)

Note Physical data are typical values based on material test but may vary from sample to sample. Typical values should not be construed as a guaranteed analysis or as a specification.

[10. Stability and reactivity]

Reactivity: Product will not undergo polymerization

Chemical Stability: Store in cool and dry place not to exceed 68°F (20t)

Possibility of hazardous reactions: Will not occur under normal conditions.

Conditions to avoid: Open flames, sources of ignition, sparks or elevated temperatures.

Incompatible Materials: Acids, basics and Oxidizing agents.

Hazardous decomposition products: Ammonia.

[11. Toxicological information]

Exposure routes: Eyes, skin, ingestion & inhalation.

Toxicity:

Acute toxicity:

Acute oral (rats): LD₅₀ >2000 mg/kg b.w.

Acute dermal (rabbits): LD₅₀=>2000mg/kg b.w.

Acute inhalation (Rats): LC₅₀= >3.84 mg/l

Acute eye irritation (rabbits): Reversible irritant to eyes

Acute dermal irritation (rabbits): Non skin irritation.

Skin sensitization (mice): Not a skin sensitizer.

Reproductive/Developmental Effects:

It is unlikely to cause reproductive effects in humans.

Chronic/Subchronic Toxicity Studies:

No cumulative toxicity expected.

Carcinogenicity: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by IARC, ACIGH, NTP, and OSHA.

Genotoxicity: potential of hydrogen cyanamide is considered equivocal.

[12. Ecological information]

Ecotoxicity:

Eco-chronic toxicity: N/A.

Avian toxicity:

LD₅₀ for Bobwhite quail = 2251 mg/kg b.w.

Aquatic organism toxicity:

LC₅₀ for rainbow trout >320 ppm LC₅₀ for bluegill sunfish > 370ppm

EC₅₀ for daphnia 151.6 ppm

Other targeted organism toxicity:

Bees: Dermal LD₅₀ for honey bees > 10 µg/bee

Macrophytes: Duckweed (Lamna gibba): EC₅₀ 37.4 ppb (14 days)

Unicellular alga, Green algae (Selenastrum capricornutum) EC₅₀ = 7 ppb (12 hours)

Unicellular alga, Blue-green algae (Anabaena flos-aquae) EC₅₀ =0.21 ppm (12 hours)

Persistence/Degradability:

Hexazinone is of moderate to high persistence in the soil environment. Hexazinone is broken down by soil microbes, which release carbon dioxide in the process. Sunlight may also break down the compound via photo-degradation.

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.

Adsorption: Hexazinone does not evaporate to any appreciable extent from soil. Hexazinone is a very poorly adsorbed in soil particles.

Other adverse effects: Practically non-toxic to birds and bees. Slight toxic to fish and invertebrates.

Environmental Precautions:

Do not apply directly to water, or to areas where surface water is present. Do not apply to intertidal areas below the mean high water mark. Do not contaminate water by cleaning of equipment or disposal of

equipment washwaters or rinsate.

[13. Disposal considerations]

Dispose of product containers, water containers, and residues according to local regulations.

Waste Disposal:

Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Container Disposal:

2.5-gallon containers: Non-refillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Offer for recycling, if available. Dispose of empty container in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

[14. Transport information]

USA Ground Proper Shipping Description

UN1993, Flammable liquid, n.o.s., (Ethanol Solution), 3, III

IATA Proper Shipping Description CARGO AIRPLANE ONLY

UN1993, Flammable liquid, n.o.s., (Ethanol Solution), 3, III, Marine pollutant (Hexazinone)

Use packing instruction 310. The maximum net quantity per package is 58.12 gal (220l)

IMO Proper Shipping Description:

UN1993, Flammable liquid, n.o.s., (Ethanol Solution), 3, III, Marine pollutant (Hexazinone)

Use packing instruction P001 and LP01.

[15. Regulatory information]

FIFRA

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. The following is the hazard information as required on the pesticide label:

EPA Reg. No.: 84229-35

EPA Signal word: WARNING

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

WARNING

Causes substantial but temporary eye injury. Harmful if swallowed or absorbed through skin. Do not get in eyes, on skin or on clothing. Wear protective eyewear such as goggles, face shield or safety glasses. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

ENVIRONMENTAL HAZARDOUS

Do not apply this product directly to water, or to areas where surface water is present or in intertidal areas below the mean high water mark. Do not contaminate water by the cleaning of equipment or disposal of equipment wash waters. Do not spray when bees are active in the field.

The active ingredient Hexazinone, in this product is known to leach through soil into the ground water under certain conditions as a result of agricultural use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground-water contamination.

Physical or chemical hazards: FLAMMABLE. Keep away from heat and open flame. Do not mix or allow contact with oxidizing agents. Hazardous chemical reactions may occur.

US Federal Regulations

TSCA list TSCA 8(b) inventory: None.

SARA Title III - section 302 - notification and information None

SARA Title III - section 313 - toxic chemical release reporting: Hexazinone

SARA Title III - section 311/312 - hazard identification

Acute health hazardous: This product contains none of the components listed as Extremely Hazardous substances.

OSHA Hazardous Components: None.

USA States Regulatory Reporting CA Prop65: This product does not contain any substances known to the State of California to cause cancer.

Right to know: Hexazinone and ethanol are listed in New Jersey and Rhode Island. Ethanol is listed in California, Connecticut and Minnesota.

Canadian Regulations: All ingredients are listed.

Environmental

CERCLA: None. **WGK (Water Danger/Protection):** None.

Safe Drinking Water Act Maximum Contaminant Levels: None.

RCRA CLASSIFICATION: Under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste. None.

[16. Other information]

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. Tide International, USA, INC. assumes no responsibility for results obtained or for incidental or consequential damages arising from the use of these data.