


MATERIAL SAFETY DATA SHEET		
ALADIN SC		
1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING		
1.1	IDENTIFICATION OF THE SUBSTANCE/PREPARATION	ALADIN SC (Clothianidin 250 g/L SC – suspension concentrate)
	CHEMICAL NAME	IUPAC: 1-(2-Chloro-1,3-thiazol-5-ylmethyl)-3-methyl-2-nitroguanidine
1.2	OTHER MEANS OF IDENTIFICATION	N/A
1.3	USE OF PREPARATION	Insecticide
1.4	COMPANY/UNDERTAKING IDENTIFICATION	Dor.Ky D&D LTD P.O.B. 232 Nes Ziona, 70400, Israel Tel: +972-8-933 3474 Fax: +972-8-933 0109
1.5	EMERGENCY TELEPHONE NUMBER	The Israeli Poisoning Centre Tel: +972-4-777 1900 Fax: +972-4-854 2029
2. HAZARDOUS IDENTIFICATION		
2.1 Classification of the mixture		
2.1.1 Classification according to GHS Regulations		
<ul style="list-style-type: none"> Health hazards: Environmental hazards: 		Acute Tox – Category 5 ----- – H333 Aquatic Chronic 1 – Category 1 - Warning - H410 Clothianidin is highly toxic to honeybees and other pollinator insects.
2.2 label elements		
<ul style="list-style-type: none"> Hazard pictograms: 		
<ul style="list-style-type: none"> Hazard pictograms-Codes: Signal words: 		GHS09 Warning
Hazard statements:		
H333 - May be harmful if inhaled H410 – Very toxic to aquatic life with long lasting effects		

Precautionary statements:

- **Preventive:** P273: Avoid release to the environment.
- **Response:** P304+P317: IF INHALED: Get medical help
 P391: Collect spillage
- **Disposal:** P501: Dispose of contents/container in accordance with local regulation

3. COMPOSITION/INFORMATION ON INGREDIENTS

Information on hazardous ingredients*

Common name	CAS No.	%	EC Number	Symbol Hazard	
Clothianidin	210880-92-5	22.94	433-460-1		Acute Tox 4 - H302 Aquatic Chronic 1 – H410
Paraffin Oil	8012-95-1	5.5	232-384-2		Aspiration Tox 1- H304
Naphtha (petroleum), hydrotreated, heavy	64742-48-9	4.6	265-150-3		Aspiration Tox 1 – H304#
Alcohol C11, ethoxylated	127036-24-2	1.83	603-182-5		Acute Tox 4 - H302 Eye Dam. 1 – H318

For occupational exposure limits, see section 8

For the full text of the H statements in this section, see section 16.

Note P: The classification as carcinogen or mutagen need not apply if it can be shown that the substance contains less than 0.1% benzene (EINECS No. 200-753-7).

4. FIRST AID MEASURES

4.1 Description of first aid measures

4.1.1	EYE CONTACT	Wash out with plenty of water with the eyelid held wide open for at least 15 minutes. Get medical attention
	SKIN CONTACT	Remove contaminated clothing. Wash away remainder with water and soap
	INHALATION	Remove victim to fresh air. If breathing is difficult: artificial respiration. Get medical attention.
	INGESTION	Wash out mouth with plenty of water. Get medical attention. Never give anything by mouth to an unconscious person.

4.1.2	Advice	Remove victim from area of exposure. Wash off remaining material with plenty of water. For more medical advice see Section 4.1.1.
4.2	Most important symptoms and effects, both acute and delayed	In general, no effects are expected for oral, dermal and inhalation routes under conditions for normal use. The product may cause serious reversible eye damage; burning feeling, temporary redness, and pain.
4.3	Indication of any immediate medical attention and special treatment needed	Note to physician: No special antidote. Treat symptomatically and supportively.
5. FIRE-FIGHTING MEASURES		
5.1	Firefighting media:	Water spray, foam, carbon dioxide and sand
5.2	Special hazards arising from the substance or mixture	In a fire, formation of sulphur, chloride and nitrogen compounds can be expected.
5.3	Advice for firefighters	For fire-fighters: Self-contained breathing apparatus and total protection required in enclosed areas. Keep unnecessary people away. If it can be done safely, remove intact containers from the fire. Otherwise, use water spray to cool them. Bund area with sand to prevent contamination of drains or waterways. Dispose of fire control water, another extinguishing agent or spillage later on. Do not release contaminated water into the environment.
6. ACCIDENTAL RELEASE MEASURES		
6.1	Personal precautions	Avoid contact with spilled material or contaminated surfaces. When dealing with spills do not eat, drink, or smoke and wear protective clothing and equipment as described in Section 8. Keep people and animals away.
6.2	Environmental precautions	Do not discharge into drains or the environment
6.3	Methods for cleaning up	contain spills and absorb with earth, sand, clay, or other absorbent material. Collect and store in properly labeled sealed, drums for safe disposal. Deal with all spillages immediately. If contamination of drains, streams, watercourses, etc. is unavoidable, warn the local water authority.
7. HANDLING AND STORAGE		
7.1	Handling	Keep out of reach of children. Wash hands thoroughly with soap after handling and before eating, drinking, and smoking. After each day's use, wash gloves and contaminated clothing
7.2	Storage	Keep only in the original container. Keep in a cool, dry, well ventilated place away from direct sunlight. Flammability: not flammable

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION		
8.1 Control parameters		
Industrial Hygiene measures	Ventilation required. When handlings do not eat, drink or smoke. Wash hands thoroughly after handling. Wash clothing separately before re-use. Contaminated work clothing should not be allowed out of the workplace.	
Personal protective equipment		
- Respiratory system	Respiratory protection is not required if good ventilation is maintained. However, If operating conditions result in airborne concentrations of this material, the use of an approved respirator is recommended.	
- Skin and body	Applicators and other handlers must wear long-sleeved shirt and long pants, shoes plus socks and chemical-resistant gloves made of any waterproof material. Remove and wash contaminated clothing separately	
- Hands	Chemical resistant gloves.	
- Eyes	Safety goggles or face shield	
8.2 Occupational Exposure Limits		
Clothianidin	Not established	
Naphtha (petroleum), hydrotreated, heavy	TWA 400 mg/m ³ (100 ppm)	
Alcohol C11, ethoxylated	Not established	
9. PHYSICAL AND CHEMICAL PROPERTIES		
APPEARANCE	Clear brown liquid (suspension concentrate, SC)	
COLOUR	Beige	
ODOUR	Slight specific odour	
FLASH POINT	> 100°C	
FLAMMABILITY	Non-flammable	
DENSITY	1.09 g/mL	
WATER SOLUBILITY	Miscible in water	
pH (1%)	6 - 7	
10. STABILITY AND REACTIVITY		
10.1	Reactivity	The product is not reactive during storage
10.2	Chemical stability	Stable under normal storage conditions.
10.3	Possibility of hazardous reactions	Not known
10.4	Conditions to avoid	Extreme heat
10.5	Incompatible materials	Strong acids and alkalis
10.6	Hazardous decomposition products	None under normal conditions. In a fire, formation of, hydrogen cyanide, Carbon monoxide and nitrogen oxide gases can be expected

11. TOXICOLOGICAL INFORMATION – product data		
11.1	Acute oral toxicity, rat	LD ₅₀ > 2,000 mg/kg
11.2	Acute dermal toxicity, rat	LD ₅₀ > 2,000 mg/kg
11.3	Acute inhalation toxicity, rat	LC ₅₀ > 2.6 mg/L (4-h, exposure; max attainable concentration)
11.4	Skin irritation, rabbit	Not irritant
11.5	Eye irritation, rabbit	Not irritant
11.6	Sensitization, guinea pig	Not sensitizer
<p>Data is for Clothianidin: Sub chronic and Chronic toxicity Clothianidin did not cause specific target organ toxicity in experimental animal studies</p> <p>Reproduction Toxicity: Clothianidin caused reproduction toxicity in a two-generation study in rats only at dose levels also toxic to the parent animals. The reproduction toxicity seen with Clothianidin is related to parental toxicity.</p> <p>Developmental toxicity Clothianidin does not cause developmental toxicity in rats.</p> <p>Clothianidin caused developmental toxicity in rabbits only at dose levels toxic to the dams. The developmental effects seen with Clothianidin are related to maternal toxicity.</p> <p>Carcinogenicity No component of this product present at levels greater than or equal to 0.1% is identified as probable or confirmed human carcinogen by IRAC</p> <p>Genotoxicity Based on the results of in vitro and in vivo genotoxicity tests, clothianidin is unlikely to pose a genotoxic risk to humans.</p>		
12. ECOLOGICAL INFORMATION (there is no data on the product; data given below is for Clothianidin:		
<p>12.1 Ecotoxicity Effects Fish: LC₅₀ (96 h) Bluegill > 117 mg/l, LC₅₀ (96 h) Rainbow trout > 104mg/l</p> <p>Effects on aquatic invertebrates (highly toxic to shrimps) EC₅₀ Daphnia magna (48 hour) > 119 mg/L LC₅₀ Mysid shrimp (96 hour) = 0.053 mg/L</p> <p>Clothianidin is toxic to shrimp. Do not apply directly to water, to areas where surface water is present or to intertidal areas below mean high water mark. Do not apply where runoff is likely to occur. Do not apply where weather conditions favour drift from areas treated. Do not contaminate water when cleaning equipment or disposing of equipment wash water or rinse</p> <p>Effects on birds LD₅₀ Bobwhite quail > 2000 mg/kg LD₅₀ Japanese quail = 430 mg/kg</p>		

Effects on bees (highly toxic)

LC50 Honeybees (48-hour acute contact) = 0.04426 µg ai/bee

LC50 Honeybees (48-hour acute oral) = 0.00379 µg ai/bee

This product is highly toxic to bees or other pollinating insects exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds if bees or other pollinating insects are foraging in the treatment area.

Effects on earthworm

LC₅₀ Earthworm (14-day) = 13.21 mg/kg dry soil

12.2 Persistence/degradability:

Soil

Parent molecule is persistent

Degradability:

DT_{50lab} in soil (20°C) is 143 days - > 1 year

DT_{50field} in soil (12°C) is 429.8 days

Water/sediment

DT₅₀ water (persistence) = 49.8 days

DT₅₀ entire system (persistence) = 76.6 days

Ready biodegradability: No.

12.3 Bio-accumulative potential: Low. The log octanol/water partition co-efficient was -0.7 at 25 deg therefore the active substance does not have the potential to bio-accumulate.

12.4 Mobility in soil

The adsorption and desorption laboratory studies resulted in an arithmetic mean KaOC of 160 mL/g and an arithmetic mean KdOC of 188 mL/g for clothianidin, respectively. These results means that clothianidin has medium to very high potential for leaching.

13. DISPOSAL CONSIDERATION

Product would be treated, stored, transported, and disposed of according to the local waste regulation authority. Do not flush to surface water or sanitary sewer system

14. TRANSPORT INFORMATION

UN number: 3082

Transport hazard class(es): 9 Subsidiary Risk: None

Packaging group III

Description of the goods ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CLOTHIANIDIN SOLUTION)

15. REGULATORY INFORMATION

15.1 Safety, health, and environmental regulations/legislation specific for the substance or mixture

Ensure all national/local regulations are observed.

15.2 Chemical Safety Assessment

16. OTHER INFORMATION:

The information contained in the Safety data sheet is correct to the best of our knowledge at the date of issue. It is intended as a guide for the safe use, handling, disposal, storage, and transportation and is not intended as warranty or as a specification. The information relates only to the product specified and may not be suitable for combinations with other materials or in processes other than those specifically described herein.

Text for phrases appear in section 3:

Hazard (H) statements:

H302: Harmful if swallowed

H304: May be fatal if swallowed and enters airways

H318: Causes serious eye damage

H410: Very toxic to aquatic life with long lasting effects

Date: 7.2024