



LUXEMBOURG

SAFETY DATA SHEET

Issue date: 03/08/2015

1. Identification of the substance or mixture and of the supplier

Product: Flurochloridone 250 g/L EC
Product commercial name: Dakota 25 EC
Recommended use: Herbicide
Supplier: Luxembourg Industries Ltd.
 27 Hamered St., Tel Aviv, 6812509
 ISRAEL
Emergency phone number: +972 3 796 4300

2. Hazards identification

Classification of the product according to regulation (EC) No. 1272/2008 [EU-GHS/CLP]

Hazard classification:

Flammable liquids	Category 3
Aspiration hazard	Category 1
Acute toxicity-Inhalation	Category 4
STOT SE* (inhalation, respiratory)	Category 3
Toxic to reproduction	Category 2
Hazardous to the aquatic environment	
Acute hazard	Category 1
Long-term hazard	Category 1

Label elements: Pictogram



Signal word: Danger

Hazard statement(s):

H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H361	Suspected of damaging fertility and the unborn child.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

Precautionary statement(s):

Prevention:

P210	Keep away from heat/sparks/open flame/hot surfaces.-No smoking.
P233	Keep container tightly closed.
P261	Avoid breathing mist/vapours/spray.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.

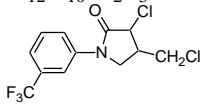
* Specific Target Organ Toxicity, Single Exposure

LUXEMBOURG INDUSTRIES LTD

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	P280	Wear protective gloves / eyes and face protection.
	P281	Use personal protective equipment as required.
Response:	P370 + P378	In case of fire: Use water spray, carbon dioxide, dry chemical powder or appropriate foam for extinction.
	P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
	P331	Do NOT induce vomiting.
	P303 + P361 + P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
	P304 + P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
Storage:	P403 + P235	Store in a well-ventilated place. Keep cool.
	P405	Store locked up.
Disposal:	P501	Dispose of contents/container in accordance with national/international regulations.
Other hazards:	Not known	

3. Information on ingredients contributing to hazard

Common name:	Flurochloridone	Aromatic hydrocarbons
Chemical name:	(3 <i>RS</i> ,4 <i>RS</i> ;3 <i>RS</i> ,4 <i>SR</i>)-3-chloro-4-chloromethyl-1-(α,α,α -trifluoro- <i>m</i> -tolyl)-2-pyrrolidinone (in ratio 3:1) (IUPAC)	Trade secret
Chemical formula:	C ₁₂ H ₁₀ Cl ₂ F ₃ NO	Trade secret
Structural formula:		Trade secret
CAS No.:	61213-25-0	N/A
Content:	250 g/L	> 50%
Classification:	Rep. Cat. 2, Aquatic acute Cat. 1, Aquatic chronic Cat. 1.	Flam. Liq. Cat. 3, Asp. Tox. Cat. 1, STOT SE Cat. 3, Aquatic chronic Cat 2.

4. First-aid measures

Ingestion: IF SWALLOWED: Call immediately a POISON CENTER or doctor/physician. Rinse mouth. Do NOT induce vomiting. Do not give anything by mouth to an unconscious person.

Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

- Eyes:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
- Skin:** Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention.

Most important symptoms and effects, both acute and delayed.

Not specific symptoms known for Flurochloridone. The formulated product may cause respiratory irritation, drowsiness or dizziness.

Indication of any immediate medical attention and special treatment needed.

There is no specific antidote. Treat symptomatically and give supportive therapy.

5. Fire-fighting measures

- Suitable extinguishing media:** Water spray. Carbon dioxide, dry chemical powder or appropriate foam, avoid using water jet. Move containers from fire area if you can do it without risk.
- Specific hazards arising from the chemical:** Combustion or thermal decomposition may evolve toxic and irritant vapors like chloride compounds, fluoride compounds and nitrogen oxides. Runoff from fire control or dilution water may cause pollution.
- Special protective equipment and precautions for fire-fighters:** Wear positive pressure self-contained breathing apparatus (SCBA) and chemical protective clothing. Dike fire-control water for later disposal; do not scatter the material.

6. Accidental release measures

- Personal precautions, protective equipment:** Exercise appropriate precautions to minimize direct contact with skin and eyes and to prevent inhalation. Use personal protective clothing, gloves and eye/face protection. Ensure adequate ventilation.
- Environmental precautions:** Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided. Prevent entry into waterways, sewers, basements or confined area.
- Methods and materials for containment and cleaning up** Contain product with an inert diking material. Place reclaimed product in a closed and properly labeled waste drum. Store drum in separate area until proper disposal. Flash residue with water. Dispose of contents/container in accordance with national/ international regulations.

7. Handling and storage

Precautions for safe handling:	Avoid contact with eye, skin and clothing. Wash hands and exposed skin thoroughly after handling. Wear suitable protective clothing. Do not eat, drink or smoke when using this product.
Conditions for safe storage, including any incompatibilities:	Keep away from sources of ignition. Keep locked up and out of the reach of children. Keep container in a well ventilated and place. Keep cool. Keep away from food, drink and animal feedstuffs. Store in original containers only. Do not contaminate other pesticides, fertilizers, water, food or feed by storage or disposal.

8. Exposure controls / personal protection

Occupational exposure limits:	Flurochloridone: Not established Aromatic solvent: 25 ppm
Appropriate engineering controls:	Provide exhaust ventilation or other engineering controls to keep the airborne concentrations low. Ensure that eyewash stations and safety showers are in proximity to the work-station location.
Personal protective equipment:	Long sleeve shirt, long pants, boots, chemical resistant gloves, dust or mist respirator, and protective eyewear.

9. Physical and chemical properties

Appearance:	Liquid
Colour:	Brown
Odour:	Aromatic
pH:	4-7
Melting point/freezing point:	Not available
Boiling point:	Not available
Evaporation rate:	Not available
Flash point:	40 °C
Flammability:	Flammable
Vapour pressure:	0.44 mPa (25°C)*
Vapour density:	Not available
Density:	0.97-1.01 g/mL
Solubility in water:	Emulsifiable concentrate
Partition coefficient n-octanol/water:	Log P = 3.36 (20°C)*
Ignition temperature:	Not available
Decomposition temperature:	290 °C*
Viscosity:	0.026 P (20°C)

*for flurochloridone technical grade



10. Stability and reactivity

Reactivity:	Stable under normal conditions. Non corrosive to aluminum zinc and copper. Little corrosive to polyethylene.
Chemical stability:	Stable under normal temperatures and pressure.
Possibility of hazardous reactions:	None known. Hazardous polymerization does not occur.
Conditions to avoid:	High temperature. Open flame.
Incompatible materials:	Not available
Hazardous decomposition products:	Chloride compounds, Fluoride compounds, nitrogen oxides

11. Toxicological information

Acute toxicity

Oral LD ₅₀ (rat):	>3000 mg/kg
Dermal LD ₅₀ (rabbit):	>4000 mg/kg
Inhalation LC ₅₀ (4h, rat):	>2.65 mg/L

Skin corrosion/irritation

Skin irritation (rabbit):	Not irritant
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Serious eye damage/irritation

Eye irritation (rabbit):	Not irritant
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Respiratory or skin sensitization

Dermal sensitization (guinea pig):	Not a skin sensitizer
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Genotoxicity:

Not genotoxic or mutagenic

Carcinogenicity:

IARC: Not listed as carcinogenic.*

Reproductive toxicity:

Suspected of damaging fertility and the unborn child.*

STOT single exposure:

Not available

STOT repeated exposure:

Not available

Aspiration hazard:

Not available

*for flurochloridone technical grade

12. Ecological information

Ecotoxicity:

Birds:

Japanese quail	LD ₅₀ :	>2000 mg/kg
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Fish:

<i>Poecilia reticulata</i>	LC ₅₀ (96h):	11.2 mg/L
Rainbow trout	NOEC (28 d):	0.36 mg/L*

Crustacean:

<i>Daphnia magna</i>	LC ₅₀ (48h):	5.1 mg/L*
	NOEC (21 d):	0.83 mg/L*

Algae:

Scenedesmus subspicatus ErC₅₀ (72 h): 0.0047 mg/L *
NOEC: 0.0028 mg/L*

Aquatic plants:

Lemna minor EC₅₀ (14d): 0.048 mg/L *
Lemna gibba NOEb/rC: 0.015 mg/L *

Bees:

Apis mellifera (oral): 100 µg/bee

Persistence and degradability:

Not readily biodegradable*

Bioaccumulative potential:

BCF>100*

Flurochloridone presents a rapid clearance from the fish tissues. Therefore, flurochloridone is not expected to pose a long-term risk through bioconcentration in aquatic organisms.

Mobility in soil:

Medium to low mobility

Other adverse effects:

Not available

*for flurochloridone technical grade

13. Disposal considerations

Do not reuse empty containers. Wash empty containers three times with water and pour the washing water into the tank sprayer. Then offer for recycling or reconditioning, or puncture and dispose of in accordance with local regulations.

14. Transport information

UN No.: 1993
Class: 3
Packaging group: III
Proper shipping name: Flammable liquid, N.O.S. (aromatic solvent)
Marine pollutant: Yes

15. Regulatory information

This data sheet complies with the requirements of Regulation 1907/2006/EC

16. Other information

The information contained herein is applicable solely to the indicated product, and does not relate to any other use of this product as described. Its use is intended by persons having technical skill and at their own discretion and risk. The information has been developed from sources reliable. This information is furnished without warranty, expressed or implied, including the warranties of merchantability and fitness for a particular purpose is made with respect to the information contained herein.

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