



SAFETY DATA SHEET

EMERGENCY CALL: 1-800-424-9300 (CHEMTREC) or
1-866-374-1975 (Tessengerlo Kerley)

1. IDENTIFICATION

PRODUCT NAME: Solicam DF Agricultural Herbicide (Alt. Predict)
DESCRIPTION: A granular herbicide
EPA Reg. No.: 61842-41
Chemical Characterization: Substance
COMPANY IDENTIFICATION: Tessengerlo Kerley, Inc.
 2910 N. 44th Street, Suite 100
 Phoenix, AZ 85018-7272
 (602) 889-8300

2. HAZARD IDENTIFICATION

WARNING

Suspected of causing cancer (H351)
 Causes eye irritation (H320)
 Harmful if swallowed (H302)
 Very toxic to aquatic life (H400)



HAZARD CLASSIFICATION

Health Hazards

Carcinogenicity
 Eye Irritation/Corrosion
 Acute Toxicity, oral

Category
 2
 2B
 4

Physical Hazards

None

Category
 -

Environmental Hazards

Hazardous to the Aquatic Environment – Acute

Category
 1

HAZARDS NOT REQUIRING CLASSIFICATION

None

PRECAUTIONARY STATEMENTS

Obtain, read and follow all safety instructions before use. Wash hands thoroughly after handling. Do not touch eyes. Do not eat, drink, or smoke when using this product. Wear protective gloves/protective clothing/face protection. (P203+P264+P265+P270+P280)

If exposed or concerned, get medical advice. (P318)

IF IN 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 help. (P305+P351+P338+P337+P317)

IF SWALLOWED: Get medical help. Rinse mouth. (P301+P317+P330)

Avoid release to the environment not in accordance with the product label. Collect spillage. (P273+P391)

Store locked up. (P405)

Dispose of contents / container using instructions in the product label and in accordance with local / Federal regulations. (P501)

3. COMPOSITION / INFORMATION ON INGREDIENTS

<u>Common Name</u>	<u>Chemical Name</u>	<u>CAS #</u>	<u>Composition</u>
Norflurazon	3(2H)-Pyridazinone, 4-chloro-5-(methylamino)-2-[3-(trifluoromethyl)phenyl]-	27314-13-2	78.6%

NOTE: Ingredients not precisely identified are proprietary or non-hazardous. Values are not product specifications.

4. FIRST AID MEASURES

Have the product container or label with you when calling a poison control center or doctor or going for treatment. For medical emergencies involving this product, call toll free 1-866-374-1975. See Label for Additional Precautions and Directions for Use.

IF SWALLOWED: Call a poison control center or doctor immediately for treatment advice. 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 anything by mouth to an unconscious person.

5. FIREFIGHTING MEASURES

Flammability : Not available.

Fire and Explosion Hazards: This material can be thermally unstable at elevated temperatures. During a fire, irritating and possible toxic gases may be generated by thermal decomposition or combustion.

Extinguishing Medium: Dry chemical, foam, or carbon dioxide (CO₂). If water is used to fight fire, dike and collect runoff.

Fire Fighting Equipment: Firefighters should be equipped with self-contained positive pressure breathing apparatus and full bunker gear.

Fire Fighting Instructions: Evacuate personnel and keep upwind of fire. If area is heavily exposed to fire and if conditions permit, let fire burn itself out since water may increase the area contaminated. Do not allow run-off from firefighting to enter drains or water courses. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Hazardous Combustion Products: No data available.

NFPA Ratings: Health – 1 / Flammability – 2 / Reactivity - 0

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Isolate area and keep unnecessary and unprotected personnel from entering. Wear suitable personal protective clothing and equipment as described in Section 8 of this document. Ensure adequate ventilation.

Environmental Precautions: Contain spillage and minimize spread. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high-water mark. Keep out of drains, sewers, ditches and water ways. Do NOT contaminate water when disposing of rinse waters.

Spill Cleanup: Avoid creating dust during cleanup. Sweep, scoop or shovel spilled material and place into suitable closed containers for reuse or disposal. After decontamination, spill area can be washed with water. Collect washwater for approved disposal. Place leaking containers in oversize leakproof drums for transport.

7. HANDLING AND STORAGE

Handling: Avoid contact with skin, eyes, or clothing. In case of skin or eye contact, flush with plenty of water.

Storage: Do not contaminate water, food, or feed by storage or disposal.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls: Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations. Local exhaust ventilation may be necessary for some operations.

Protective Clothing: Wear long-sleeved shirt and long pants, waterproof gloves, shoes plus socks

General: Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	light brown to dark brown granules	pH:	6-9 (5% susp. In H ₂ O @ 25°C)
Melting point:	345-356°F (173.9-180°C)	Kinematic viscosity:	not available
Boiling point:	not available	Solubility (water):	33.7 ppm @ 77°F (25°C)
Flammability:	combustible powder	Partition coefficient:	not available
Flammability limits (upper/lower):	not applicable	Vapor pressure:	1.0x10 ⁻⁵ mmHg @ 75°F (24°C)
Flash point (cc):	not available	Bulk Density:	0.72 g/cm ³ (typical)
Auto-ignition temperature:	not available	Relative vapor density:	44 lbs./ft ³
Decomposition temperature:	not available	Particle characteristics:	not available
Odor:	odorless		

10. STABILITY AND REACTIVITY

CONDITIONS TO AVOID: None known.

CHEMICAL STABILITY: Stable under normal temperature and storage conditions.

INCOMPATIBILITY WITH OTHER MATERIALS: None known.

HAZARDOUS DECOMPOSITION PRODUCTS: None known.

HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION

ORAL TOXICITY (rat LD₅₀): 1,140 mg/kg

DERMAL TOXICITY (rabbit LD₅₀): > 2,000 mg/kg

INHALATION TOXICITY (rat LC₅₀): 2.6 mg/L (4 hours)

EYE IRRITATION: Mildly-irritating (rabbits)

SKIN IRRITATION: Slightly irritating (rabbits)

SKIN SENSITIZATION: Not a sensitizer (guinea pig)

CARCINOGENICITY:

EPA: Group C: Possible human carcinogen (norflurazon)

ACGIH: Not Listed **NTP:** Not Listed

IARC: Not Listed **OSHA:** Not Listed

DEVELOPMENTAL TOXICITY: Delayed ossification (rabbit); Maternal toxicity at 750 ppm (rat).

NEUROTOXICITY: There was no evidence of neurotoxicity or immunotoxicity in the database for norflurazon.

MUTAGENICITY / GENOTOXICITY: Negative mutagenicity data and no positive analogues.

CHRONIC/SUBCHRONIC TOXICITY: Accelerated aging changes in rats at high dose levels (1025 ppm). Effects in pituitary, adrenals, uterus and ovaries (rats). Hepatocellular hypertrophy in high dose (male mice). Slight increase in liver weight at 200 ppm (male dogs).

12. ECOLOGICAL INFORMATION

This product is very toxic to aquatic plants and moderately toxic to aquatic invertebrates.

The following information is for the active ingredient, Norflurazon:

AQUATIC TOXICITY - Acute

Rainbow Trout (96-hour LC₅₀): 8.1 mg/L

Daphnia Magna (48-hour LC₅₀): > 15 mg/L

Freshwater algae (5-day EC₅₀): 0.013 mg/L

AVIAN TOXICITY

Bobwhite Quail Dietary (14-day LD₅₀): >1,000 mg/kg

12. ECOLOGICAL INFORMATION (Continued)

Low bioaccumulation potential
Persistent in soil
Stable in water
Moderate mobility in soil
Floats in water (after 24 h.)

13. DISPOSAL CONSIDERATIONS

PESTICIDE DISPOSAL: Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If wastes cannot be disposed of by use according to label instructions, contact your state pesticide or environmental control agency or hazardous waste representative at the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL: Nonrefillable containers. See container label for container handling and disposal instructions.

14. TRANSPORT INFORMATION

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

US-DOT:

Containers ≤ 11 lbs. (5 kg):

Not regulated

Containers > 11 lbs. (5 kg)

UN3077, Environmentally hazardous substance, solid, N.O.S. (norflurazon), 9, PG III, Marine Pollutant

IMDG:

UN3077, Environmentally hazardous substance, solid, N.O.S. (norflurazon), 9, PG III, Marine Pollutant

IATA:

UN3077, Environmentally hazardous substance, solid, N.O.S. (norflurazon), 9, PG III, Marine Pollutant

EMS Number:

Not listed

Additional Transportation Information: In accordance with 49 CFR 171.4(c), non-bulk packagings (max capacity of 119 gal. (450 L) or less for liquids or 882 lbs. (400 kg) or less for solids) transported by motor vehicle, rail car or aircraft are excepted from all Marine Pollutants regulations in 49 CFR and therefore treated as non-hazardous material. All bulk shipments or any shipment transported partially or entirely by vessel are treated as regulated Marine Pollutants and are shipped according to the requirements listed.

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 GHS 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:

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION. Harmful if swallowed or absorbed through the skin. Avoid contact with skin, eyes, or clothing. In case of skin or eye contact, flush with plenty of water.

15. REGULATORY INFORMATION (Continued)

ENVIRONMENTAL HAZARDS

Do not contaminate water when disposing of equipment wash water. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not allow this material to drift onto neighboring crops or noncrop areas or use in a manner or at a time other than in accordance with label directions because animal, plant or crop injury, illegal residues, or other undesirable results may occur.

Norflurazon can contaminate surface water through spray drift. Under some conditions, norflurazon may also have a high potential for runoff into surface water (primarily via dissolution in runoff water) for several months post-application. These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, areas overlaying extremely shallow ground water, areas with in-field canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and areas overlaying tile drainage systems that drain to surface water.

This chemical is known to leach through soil into 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.

All pesticides are governed under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). The regulatory information presented below is pertinent only when this product is handled outside of the normal use and application as a pesticide. This product is excluded from listing requirements under EPA/TSCA.

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

Section 355 (extremely hazardous substances): Not listed.

SARA Title III – Section 302 Extremely Hazardous Substances

Not listed

SARA Title III – Section 311/312 Hazard Categories

Immediate (Acute), Delayed (Chronic)

Section 313 (Toxic Release Reporting-Form R):

Norflurazon (CAS No. 27314-13-2): 78.6%

CERCLA/SUPERFUND:

Not listed

California Proposition 65

This product does not contain any chemical known to the State of California to cause cancer or other reproductive harm.

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.

GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

The product is subject to be labeled according with the prevailing version of the regulations on hazardous substances.

CANADA

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by CPR.

16. OTHER INFORMATION

The information and recommendations contained herein are provided in good faith and 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 herein.

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SDS Version: 2.1

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