



Nudrin SP Insecticide

Safety Data Sheet

Revision date: March 22, 2015

Version: 1.0

SECTION 1: Product and Company Identification

1.1. Product identifier

Trade name : Nudrin SP Insecticide
Description : Methomyl 90SP (soluble powder in water soluble packets)
CAS No. : 155569-91-8
EPA Registration Number : 83100-28-83979

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. Relevant identified uses

Use of the substance/preparation : Insecticide

1.2.2. Uses advised against

Consumer use

1.3. Details of the supplier of the safety data sheet

Rotam North America, Inc.
4900 Koger Blvd. Suite# 140
Greensboro, NC 27407
Phone: 1-(866) 927-6826 (toll free); 1-(336) 346-8802
msds@rotam.com

1.4. Emergency telephone number

Emergency number : 1-800-858-7378 (NPIC)
1-800-222-1222 (Poison Control Center)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification

<u>Hazard Class</u>	<u>Category</u>	<u>Hazard Statement</u>
Acute Toxicity - Oral	2	H300
Acute Toxicity – Inhalation	2	H330
Aquatic Toxicity Acute	1	H400
Aquatic Toxicity Chronic	1	H410

If applicable, full text of H-phrases appear in “Label elements” below

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

GHS Labeling Elements

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Hazard pictograms (CLP) :



GHS06

GHS09

Signal word :

DANGER

Hazard statements :

H300 – Fatal if swallowed
H330 – Fatal if inhaled
H410 – Very toxic to aquatic life with long lasting effects

Precautionary statements (prevention) :

P260 – Do not breathe mists, vapors or sprays
P264 – Wash thoroughly after handling
P270 – Do not eat, drink or smoke when using this product
P271 – Use only outdoors or in a well-ventilated area
P284 – Wear respiratory protection
P273 – Avoid release to the environment

Precautionary statements (response) :

P301+P310 – IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician
P330 – Rinse mouth
P304+P340 – IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P310 – Immediately call a POISON CENTER or doctor/physician
P391 – Collect spillage

Precautionary statements (Storage) :

P403+P233 – Store in a well-ventilated place. Keep container tightly closed
P405 – Store locked up

Precautionary statements (disposal) :

P501 – Dispose of contents/container in accordance with federal, state and local regulations.

2.3. Other hazards/labeling information

May be fatal if it gets in eyes. If released from packet, powder may be fatal if inhaled. Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.

SECTION 3: Composition/information on ingredients

Name	Product identifier	%
Methomyl	(CAS No.) 155569-91-8	90
Other Ingredients	NA	10

SECTION 4: First aid measures

4.1. Description of first aid measures

IF INHALED

: Move to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for treatment advice.

IF ON SKIN OR CLOTHING

: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice if irritation develops or persists.

IF IN EYES

: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call poison control center or doctor for treatment advice if irritation develops or persists.

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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 by a poison control center or doctor. Do not give anything to an unconscious person
First-aid measures – general	: Have the product container or label with you when calling a poison control center or doctor, or going for treatment. See Label for Additional Precautions and Directions for Use.
Notes to Physician	: Probable mucosal damage may contraindicate the use of gastric lavage. TREATMENT - Atropine sulfate should be used for treatment. Administer repeated doses, 1.2 to 2.0 mg intravenously every 10 to 30 minutes until full atropinization is achieved. Maintain atropinization until the patient recovers. Artificial respiration or oxygen may be necessary. Allow no further exposure to any cholinesterase inhibitor until recovery is assured. Do not use 2-PAM for exposure to ROTAM METHOMYL 90SP INSECTICIDE alone. However, for exposure to combinations of ROTAM METHOMYL 90SP and organophosphorous insecticides, 2-PAM may be used as required to supplement the atropine sulfate treatment. Do not use morphine. Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact the National Poison Control Center 24-hr Emergency Hotline at: 1-800-222-1222 .

4.1. Description of first aid measures

ATROPINE IS AN ANTIDOTE -- SEEK MEDICAL ATTENTION AT ONCE IN ALL CASES OF SUSPECTED POISONING.

If poisoning symptoms appear (see POISONING SYMPTOMS), get medical attention.

POISONING SYMPTOMS - Methomyl poisoning produces effects associated with anticholinesterase activity which may include weakness, blurred vision, headache, nausea, abdominal cramps, discomfort in the chest, constriction of pupils, sweating, slow pulse, muscle tremors. If poisoning symptoms appear, refer to First Aid section and seek medical attention at once

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Water, dry chemical powder, foam, carbon dioxide (CO ₂).
Unsuitable extinguishing media	: High volume water jet. (Water contamination risk from runoff)

5.2. Special hazards arising from the substance or mixture

Fire hazard	: Hazardous decomposition products may be released during prolonged heating including Carbon monoxide, carbon dioxide, smoke, sulfur oxides, methyl isocyanate and hydrogen cyanide
Explosion hazard	: Product is not explosive.
Reactivity	: The product is stable at normal handling and storage conditions.

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5.3. Advice for firefighters

Firefighting instructions : In the event of fire, wear self-contained breathing apparatus. Keep out of smoke. Fight fire from upwind position. Cool closed containers exposed to fire with water spray. Dike area to prevent runoff and contamination of water sources. Equipment or materials involved in pesticide fires may become contaminated.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Wear appropriate personal protective equipment (PPE) : goggles, protective gloves/clothing, approved particulate respirator (see Section 8). Avoid dust formation. Sweep up or vacuum up spillage and collect in suitable container for disposal. Clean contaminated floors and objects thoroughly, observing environmental regulations. Prevent material from entering sewers, waterways, or low areas. Never return spills in original containers for re-use. Dispose of in accordance with local regulations.

6.1.1. For non-emergency personnel

Protective equipment : Wear appropriate personal protective equipment (PPE) : goggles, protective gloves/clothing, approved particulate respirator (see Section 8).

Emergency procedures : Avoid contact with spilled material. Do not allow product to enter streams, sewers or other waterways.

6.1.2. For emergency responders

Protective equipment : Wear appropriate personal protective equipment (PPE) : goggles, protective gloves/clothing, approved particulate respirator (see Section 8).

6.2. Environmental precautions

This pesticide is toxic to fish, aquatic invertebrates, and mammals. Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high-water mark. Drift and runoff may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwater or rinsate.

This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area. This chemical is known to leach through soil into groundwater under certain conditions as a result of label use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

This chemical can contaminate surface water through spray drift. Under some conditions, it may also have a high potential for runoff into surface water for several days to weeks after application. These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, and areas overlaying extremely shallow groundwater, 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 over-laying tile drainage systems that drain to surface water.

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6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Avoid dust formation. Sweep up or vacuum up spillage and collect in suitable container for disposal. Clean contaminated floors and objects thoroughly, observing environmental regulations.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : USERS SHOULD:

- Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove personal protective equipment immediately after handling this product.
- Wash the outside of gloves before removing.
- As soon as possible, wash thoroughly and change into clean clothing.
- Remove and wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in original container. Store in a cool, dry place. Do not contaminate water, other pesticides, fertilizer, food or feed in storage. Keep out of the reach of children.

SECTION 8: Exposure controls/personal protection

Exposure limits are listed in the table below:

Name	CAS #	OSHA (PEL-TWA)	NIOSH (TWA)	ACGIH (TLV-TWA)	ACGIH (TLV-STEL)
Methomyl	16752-77-5	2.5) mg/m ³	2.5 mg/m ³	2.5 mg/m ³	Not established

8.1. Personal protective equipment

Train employees in safe use of the product. Follow all label instructions. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and warm/tepid water. Keep and wash PPE separately from other laundry.

Mixers, loaders, applicators, cleaners, repairers of application equipment, and others exposed to the concentrate must wear:

- Long sleeve shirt and long pants
- Chemical-resistant gloves, such as barrier laminate or butyl rubber
- Socks and chemical resistant footwear
- Protective eyewear
- Chemical resistant apron
- Respirator with either an organic vapor-removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C), or a canister approved for pesticides (MSHA/NIOSH

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approval number prefix TC-14G), or a NIOSH approved respirator with an organic vapor (OV) cartridge or a canister with any R, P, or HE prefilter

Discard clothing or other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

Human flaggers must be in enclosed cabs.

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR Part 170.240 (d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

The enclosed cabs must be used in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR Part 170.240 (d)(4-6)]. The handler PPE requirements may be reduced or modified as specified in the WPS.

Water soluble packets when used correctly qualify as a closed loading system under the WPS. Handlers handling this product while it is enclosed in intact water-soluble packets are permitted to wear long-sleeved shirt, long pants, shoes plus socks, chemical-resistant gloves, and chemical-resistant apron, provided the other required PPE is immediately available in case the bag is opened.

Pilots must not assist in the mixing and loading operations

8.2. Exposure controls

Ensure adequate ventilation, especially in confined areas.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid (fine powder in water soluble packets)
Color	: Off White
Odor	: Slight sulfur
Odor threshold	: Not applicable
pH (1%)	: No information available
Relative evaporation rate (butylacetate=1)	: Not Applicable
Melting point	: No information available
Freezing point	: Not applicable
Boiling point	: Not applicable
Flash point	: Not applicable
Self ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Not flammable
Vapor pressure	: 0
Relative vapor density at 20 °C	: No data available
Relative density	: No data available
Density	: 0.6 g/cm ³ at 20 °C
Solubility	: Disperses
Log Kow	: 2.3

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Log Pow	: No data available
Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: Not applicable
Explosive properties	: Non explosive
Oxidizing properties	: Non oxidizing
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is stable at normal handling and storage conditions.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

Protect from heat.

10.5. Incompatible materials

Strong acids, strong bases and oxidizing agents.

10.6. Hazardous decomposition products

Thermal decomposition products include:

Carbon monoxide, carbon dioxide

Smoke

Sulfur oxides, methyl isocyanate and hydrogen cyanide

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Nudrin SP Insecticide	
LD50 oral rat	14.2 mg/kg (male), 7.14 mg/kg (female)
LD50 dermal rat	>5050 mg/kg
LC50 inhalation rat (mg/l)	0.114-0.299 mg/l/4h
Skin corrosion/irritation	Not irritating to skin
Serious eye damage/irritation	Slightly irritating to eyes (note – methomyl may be fatal if it gets in eyes).
Respiratory or skin sensitisation	Not a sensitizer

Methomyl (sub-chronic, chronic)

Carcinogenicity	: Not classified as a carcinogen.
Reproductive & Developmental toxicity	: Not classified as a reproductive toxin.
Neurotoxicity	: Not classified as a neurotoxin. However, effects of exposure may include neurotoxic effects such as constriction of pupils and tremors.
Mutagenicity	: Not classified as a mutagen.

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Methomyl (sub-chronic, chronic)

Specific Target Organ Toxin – Single Exposure : No information available.
Specific Target Organ Toxin – Repeat Exposure : No Information available.
Aspiration Hazard : Not classified

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity (Acute)

Bees LC50/EC50 (48 hour): 0.1 ug/bee (contact)
Invertebrates (Daphnia) LC50/EC50 (48 hour): 28.7 ppb
Fish (bluegill) LC50/EC50 (96 hour): 0.9 mg/L
Birds (Pheasant) LC50/EC50: 15.4 mg/kg
Birds (Mallard Ducks) LC50/EC50 (14-day): 15.9 mg/kg

Ecotoxicological Summary

This pesticide is toxic to fish, aquatic invertebrates, and mammals. Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high-water mark. Drift and runoff may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwater or rinsate.

This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area. This chemical is known to leach through soil into groundwater under certain conditions as a result of label use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

This chemical can contaminate surface water through spray drift. Under some conditions, it may also have a high potential for runoff into surface water for several days to weeks after application. These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, and areas overlaying extremely shallow groundwater, 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 over-laying tile drainage systems that drain to surface water.

12.2. Persistence and degradability

Not readily biodegradable.

12.3. Bioaccumulative potential

Methomyl	
Log Kow	2.3 (pH 7, 25°C)

12.4. Mobility in soil

No information available

SECTION 13: Disposal considerations

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13.1. Waste treatment methods

- Waste disposal : Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.
- Container disposal : **For Water Soluble Packets:** Do not reuse the outer box or the resealable plastic bag. When all water-soluble packets are used, the outer packaging should be clean and may be disposed of in a sanitary landfill or by incineration, or if allowed by state and local authorities, by open burning. If burned, stay out of smoke. If the resealable plastic bag contacts the formulated product in any way, the bag must be triple-rinsed with clean water. Add the rinsate to the spray tank and dispose of the outer wrap as described above.
For Paper and Plastic Bags: Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

SECTION 14: Transport information

Ground transport

US DOT – UN2757 CARBAMATE PESTICIDE, SOLID, TOXIC, 6.1, II (Contains a DOT Listed Marine Pollutant (Methomyl), RQ = 100 lbs)

Canadian TDG – UN2757 CARBAMATE PESTICIDE, SOLID, TOXIC, 6.1, II (Contains a TDG Listed Marine Pollutant (Methomyl))

Transport by sea (IMDG)

UN2757 CARBAMATE PESTICIDE, SOLID, TOXIC (Methomyl), 6.1, II

Air transport (IATA)

UN2757 CARBAMATE PESTICIDE, SOLID, TOXIC, 6.1, II

Additional Air, Sea and International Transportation Information

- UN-No. : UN2757
Proper Shipping Name : CARBAMATE PESTICIDE, SOLID, TOXIC, 6.1, II
Transport document description : UN2757 CARBAMATE PESTICIDE, SOLID, TOXIC, 6.1, II
Class/Division (UN) : 6.1
Hazard labels (UN) : 6.1



- Packing group (UN) : II
Marine Pollutant (Y/N) : Y (Methomyl)
Dangerous for the environment :




SECTION 15: Regulatory information

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FIFRA Information:

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. Following is the hazard information as required on the pesticide label:

Symbol	:  (Skull and Crossbones)
Signal word	: DANGER
Hazard statements	: Fatal if swallowed. May be fatal if inhaled or gets in eyes.
Precautionary statements	: Do not breathe dust. Do not get in eyes. Avoid contact with clothing.

CERCLA: Reportable Quantity = 100 lb

SARA 302 Extremely Hazardous Substances: Methomyl

SARA 313 Regulated Chemical(s): None

Title III hazard classification:

Acute Health Hazard: Yes

Chronic Health Hazard: No

Fire: No

Reactivity/Physical hazard: No

Pressure: No

Canadian Regulatory Information:

This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR. WHMIS Classification: D1A – Very Toxic Material



SECTION 16: Other information

NFPA: Health: 3; Flammability: 1; Reactivity: 0; Specific:
HMIS: Health: 3; Flammability: 1; Physical Hazard: 0; PPE: J

SDS US-GHS

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