

An Employee-Owned Company

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Version 4

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier. Product Name

Gordon's® MALATHION 50% Spray

Other means of identificationProduct CodePBI FP 893-5EPA Pesticide Registration Number33955-394

Recommended use of the chemical and restrictions on useRecommended UseInsecticideUses advised againstNo information available

Details of the supplier of the safety data sheet

Supplier Address PBI-Gordon Corporation P.O. Box 860350 Shawnee, KS 66286 Company Name PBI-Gordon Corporation P.O. Box 860350 Shawnee, KS 66286 Manufacturer PBI-Gordon Corporation P.O. Box 860350 Shawnee, KS 66286

SAFETY DATA SHEET

Emergency telephone number

24 Hour Emergency Phone Number Chemtrec 1-800-424-9300

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute Oral Toxicity	Category 4
Acute Inhalation Toxicity - Dusts and Mists	Category 4
Skin Sensitization	Category 1
Germ cell mutagenicity	Category 1B
Carcinogenicity	Category 1B
Aspiration hazard	Category 1
Acute Aquatic Toxicity	Category 1
Chronic Aquatic Toxicity	Category 1
Flammable liquids	Category 3

Label elements

Emergency Overview

Signal word Danger

Hazard statements

Harmful if swallowed or if inhaled

May cause an allergic skin reaction

May cause genetic defects

• May cause cancer

• May be fatal if swallowed and enters airways

Very toxic to aquatic life with long lasting effects

Flammable liquid and vapor



Precautionary Statements - Prevention

Obtain special instructions before use Do not handle until all safety precautions have been read and understood Wear protective gloves/protective clothing/eye protection/face protection Wash face, hands and any exposed skin thoroughly after handling Do not eat, drink or smoke when using this product Avoid breathing dust/fume/gas/mist/vapors/spray Use only outdoors or in a well-ventilated area Contaminated work clothing must not be allowed out of the workplace Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking Keep container tightly closed Ground/bond container and receiving equipment Use only non-sparking tools Take precautionary measures against static discharge Keep cool

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention Call a POISON CENTER or doctor if you feel unwell If skin irritation or rash occurs: Get medical advice/attention IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower Wash contaminated clothing before reuse IF INHALED: Remove person to fresh air and keep comfortable for breathing Call a POISON CENTER or doctor IF SWALLOWED: Immediately call a POISON CENTER or doctor Do NOT induce vomiting Rinse mouth In case of fire: Use CO2, dry chemical, or foam to extinguish

Precautionary Statements - Storage

Store locked up Store in a well-ventilated place. Keep container tightly closed

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Have the product label with you when calling a poison control center or doctor or going in for treatment. You may also contact 1-877-800-5556 for emergency medical treatment advice.

Other information

Not applicable.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance

Not applicable.

<u>Mixture</u>

Chemical name	CAS-No	Weight-%
Malathion	121-75-5	50

Trade Secret	Trade secret composition has been withheld as a trade secret.	40-50*	
The exact percentage (concentration) of	·		
	4. FIRST AID MEASURES		
Description of first aid measures			
General advice	IF exposed or concerned: Get medical advice/	attention.	
Eye contact	Rinse immediately with plenty of water, also u eye wide open while rinsing. If symptoms pers		
Skin contact	Wash off immediately with soap and plenty of clothes and shoes. May cause an allergic skin physician.		
Inhalation	Remove to fresh air. If breathing has stopped, give artificial respiration. Get medical attention immediately. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Aspiration into lungs can produce severe lung damage. Delayed pulmonary edema may occur.		
Ingestion	Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. ASPIRATION HAZARD IF SWALLOWED - CAN ENTER LUNGS AND CAUSE DAMAGE. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. Get immediate medical advice/attention.		
Self-protection of the first aider	Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Use personal protective equipment as required. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation.		
Most important symptoms and effe	ets, both acute and delayed		
Symptoms	No information available		
Indication of any immediate medica	attention and special treatment needed		
Note to physicians	May cause sensitization in susceptible person danger of aspiration, emesis or gastric lavage justified by the presence of additional toxic sub vomiting may cause aspiration pneumonia. Ex cholinesterase inhibition. Atropine by injection also antidotal when administered early and in	should not be employed unless the risk is ostances. Contains petroleum distillate - posure to the active ingredient may cause is antidotal. 2-PAM (Protopam Chloride) is	
	5. FIRE-FIGHTING MEASURES		
Suitable Extinguishing Media	Dry chemical. Carbon dioxide (CO2). Alcohol	resistant foam.	
Unsuitable extinguishing media	Water spray.		
Specific hazards arising from the chemical	Risk of ignition. Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. Product is or contains a sensitizer. May cause sensitization by skin contact.		
Explosion data Sensitivity to mechanical impac Sensitivity to static discharge	t None. Yes.		
Special protective equipment for fire-fighters	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.		

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions	recautions Evacuate personnel to safe areas. Use personal protective equipment as required. Aver contact with skin, eyes or clothing. Ensure adequate ventilation. Keep people away from				
	and upwind of spill/leak. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Pay attention to flashback. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material.				
Environmental precautions					
Environmental precautions	Prevent further leakage or spillage if safe to do so Prevent product from entering drains Do not flush into surface water or sanitary sewer system See Section 12 for additional ecological information Avoid release to the environment Collect spillage Dispose of contents/container to an approved waste disposal plant				
Other information	Ventilate the area. Refer to protective measures listed in Sections 7 and 8.				
Methods and material for containm	ent and cleaning up				
Methods for containment	Stop leak if you can do it without risk. Do not touch or walk through spilled material. A vapor suppressing foam may be used to reduce vapors. Dike far ahead of spill to collect runoff water. Keep out of drains, sewers, ditches and waterways. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.				
Methods for cleaning up	Take precautionary measures against static discharges. Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.				
	7. HANDLING AND STORAGE				

Precautions for safe handling

Advice on safe handling Use personal protection equipment. Avoid breathing vapors or mists. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use grounding and bonding connection when transferring this material to prevent static discharge, fire or explosion. Use with local exhaust ventilation. Use spark-proof tools and explosion-proof equipment. Use according to package label instructions. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse.

Conditions for safe storage, including any incompatibilities

Storage Conditions

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labeled containers. Keep out of the reach of children. Keep at temperatures below 25°C / 77°F.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Limits

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Malathion	TWA: 1 mg/m ³ inhalable fraction	TWA: 15 mg/m ³ total dust	IDLH: 250 mg/m ³
121-75-5	and vapor	(vacated) TWA: 10 mg/m ³ total dust	TWA: 10 mg/m ³
	S*	(vacated) S*	-
		S* total dust	

Other Information	Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).	
Appropriate engineering controls		
Engineering controls	Showers Eyewash stations Ventilation systems.	
Individual protection measures, su	ich as personal protective equipment	
Eye/face protection	Tight sealing safety goggles.	
Hand protection	Chemical resistant gloves.	
Skin and body protection	Wear long-sleeved shirt, long pants, socks and shoes.	
Respiratory protection	If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.	
General hygiene considerations	Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection.	

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

information on pasic physical and		
Physical state	Liquid	
Appearance	Liquid	
Color	Light yellow	
Odor	Mercaptan	
Odor threshold	No information available	
Property_	Values	Remarks • Method
рН	Not applicable	None known
Melting point/freezing point		None known
Boiling point / boiling range	149 °C / 300 °F	
Flash point	41 °C / 106 °F	
Evaporation rate	< 1	
Flammability (solid, gas)	No data available	None known
Flammability Limit in Air		None known
Upper flammability limit:	No data available	
Lower flammability limit:	No data available	
Vapor pressure	<16 mm Hg@20⁰C	
Vapor density	>1	
Specific Gravity	1.051	
Water solubility	Emulsifiable	
Solubility in other solvents	No data available	None known
Partition coefficient	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature	No data available	None known
Other Information		
Liquid Density	8.7 pounds/gallon	
Bulk density	No information available	
Durk density		

10. STABILITY AND REACTIVITY

Reactivity

No information available.

Stability

No information available

Possibility of hazardous reactions

None under normal processing.

Hazardous polymerization

Will not occur.

Conditions to avoid

Heat, flames and sparks.

Incompatible materials

None known based on information supplied.

Hazardous decomposition products

May emit toxic fumes under fire conditions. Hydrogen sulfide. Methyl Mercaptan. Dimethyl Sulfide. Oxides of sulfur. Carbon oxides. Phosphorus oxides.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Inhalation	Harmful if inhaled. Aspiration into lungs can produce severe lung damage. May cause pulmonary edema.
Eye contact	May cause irritation.
Skin contact	May cause irritation.
Ingestion	Harmful if swallowed. Potential for aspiration if swallowed. May cause lung damage if swallowed. Aspiration may cause pulmonary edema and pneumonitis.

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Malathion	= 1390 mg/kg (Rat) = 290 mg/kg (= 4100 mg/kg (Rabbit)	= 43790 µg/m³ (Rat)4 h
121-75-5	Rat)		
Trade Secret	= 8400 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	= 3400 ppm (Rat)4 h

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms

No information available.

Acute toxicity

<u>Numerical measures of toxicity</u> - Product Information_ The following values are calculated based on chapter 3.1 of the GHS document .

Unknown Toxicity

0% of the mixture consists of ingredient(s) of unknown toxicity

LD50 Oral	> 2000 mg/kg (rat)
LD50 Dermal	> 2000 mg/kg (rabbit)
LC50 Inhalation (DUST)	> 5.10 mg/L

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation	No information available.
Serious eye damage/eye irritation	No information available.
Respiratory or skin sensitization	May cause sensitization by skin contact.
Germ cell mutagenicity	Contains a known or suspected mutagen.
Carcinogenicity	Classification based on data available for ingredients.

Chemical name	ACGIH	IARC	NTP	OSHA		
Malathion	-	Group 2A	-	Х		
	121-75-5					
Legend IARC (International Agency for Research on Cancer) Group 2A - Probably Carcinogenic to Humans OSHA (Occupational Safety and Health Administration of the US Department of Labor) X - Present						
Reproductive toxicity	No information	No information available.				
STOT - single exposure	No information	No information available.				
STOT - repeated exposu	re No informatio	No information available.				
Target Organ Effects		blood, Central nervous system, Central Vascular System (CVS), Eyes, Gastrointestinal tract (GI), Liver, Respiratory system, Skin.				
Aspiration hazard	May be fatal	if swallowed and enters air	ways.			

12. ECOLOGICAL INFORMATION

Marine pollutant

This product contains a chemical which is listed as a marine pollutant according to DOT.

Ecotoxicity

Very toxic to aquatic life with long lasting effects.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Malathion	4.06: 72 h	0.0022 - 0.0074: 96 h	-	0.00014 - 0.014: 48 h
121-75-5	Pseudokirchneriella	Oncorhynchus mykiss mg/L		Daphnia magna mg/L EC50
	subcapitata mg/L EC50	LC50 static 0.24 - 1.24: 96 h		1 0 0
		Cyprinus carpio mg/L LC50		
		static 0.002: 96 h Cyprinus		
		carpio mg/L LC50 1.2: 96 h		
		Poecilia reticulata mg/L		
		LC50 0.085: 96 h Cyprinus		
		carpio mg/L LC50		
		semi-static 0.028: 96 h		
		Oncorhynchus mykiss mg/L		
		LC50 0.094 - 0.146: 96 h		
		Oncorhynchus mykiss mg/L		
		LC50 semi-static 0.089: 96 h		
		Lepomis macrochirus mg/L		
		LC50 10.1: 96 h Pimephales		
		promelas mg/L LC50 12.3 -		
		16.1: 96 h Pimephales		
		promelas mg/L LC50		
		flow-through 0.34: 96 h		
		Lepomis macrochirus mg/L		
		LC50 flow-through 9.7: 96 h		
		Oryzias latipes mg/L LC50		
		static 3.1: 96 h Poecilia		
		reticulata mg/L LC50 static		

		6.45 - 11.5: 96 h Pimephales promelas mg/L LC50 static 0.010 - 0.088: 96 h Lepomis macrochirus mg/L LC50 static	
Trade Secret	-	9.22: 96 h Oncorhynchus mykiss mg/L LC50	- 6.14: 48 h Daphnia magna mg/L EC50
Persistence and degrada	ability No information	on available.	
Bioaccumulation	No information	on available.	
Other adverse effects	No information	on available.	
	13. DIS	POSAL CONSIDERATIONS	
Waste treatment method	<u>IS</u>		
Waste from residues/unu products		e released into the environment. Dis Dispose of waste in accordance with	
Contaminated packaging	g Empty conta containers.	iners pose a potential fire and explos	sion hazard. Do not cut, puncture or weld
US EPA Waste Number	D001.		
	14. TF	RANSPORT INFORMATION	
DOT UN/ID no. Proper shipping nam Hazard class Packing group Reportable Quantity Special Provisions Marine pollutant Description	3 III (RQ) Malathion: R B1, B52, IB3 This product	E LIQUIDS, N.O.S. Q (gallons)= 22 gallons , T4, TP1, TP29 contains a chemical which is listed a AMMABLE LIQUIDS, N.O.S., 3, III, I	as a marine pollutant according to DOT. Limited quantity, Marine pollutant
TDG UN/ID no. Proper shipping nam Hazard class Packing group Marine pollutant Description MEX	3 III This product	E LIQUID, N.O.S. contains a chemical which is listed a AMMABLE LIQUID, N.O.S., 3, III, Li	as a marine pollutant according to TDG. mited quantity
UN/ID no. Proper shipping nam Hazard class Special Provisions Packing group Description	3 223, 274 III	E LIQUID, N.O.S. AMMABLE LIQUID, N.O.S., 3, III, Li	mited quantity
ICAO (air) UN/ID no. Proper shipping nam Hazard class Packing group Special Provisions Description	3 III A3	E LIQUID, N.O.S. AMMABLE LIQUID, N.O.S., 3, III	

UN number	UN1993
UN proper shipping name	FLAMMABLE LIQUID, N.O.S.
Transport hazard class(es)	3
Packing group	III
Special Provisions	A3
Description	UN1993, FLAMMABLE LIQUID, N.O.S., 3, III, LIMITED QUANTITY
IMDG UN number UN proper shipping name Transport hazard class(es) Packing group EmS-No. Special Provisions Description	UN1993 FLAMMABLE LIQUID, N.O.S. 3 III F-E, S-E 223, 274, 955 UN1993, FLAMMABLE LIQUID, N.O.S. (MALATHION), 3, III, LIMITED QUANTITY, MARINE POLLUTANT

15. REGULATORY INFORMATION

U.S. EPA Label Information

EPA Pesticide Registration Number 33955-394

Federal Insecticide, Fungicide, Rodenticide Act Regulations

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:

EPA Pesticide Label

Warning. Keep out of the reach of children.

PRECAUTIONARY STATEMENTS Hazards to Humans and Domestic Animals: WARNING: Causes substantial but temporary eye injury. Harmful if swallowed. Harmful if absorbed through skin. Do not get in eyes or on clothing. Avoid contact with skin. Wear protective eyewear (goggles, face shield, safety glasses). Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. 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.

To protect the environment, do not allow pesticide to enter or run off into storm drains, drainage ditches, gutters or surface waters. Applying this product in calm weather when rain is not predicted for the next 24 hours will help to ensure that wind or rain does not blow or wash pesticide off the treatment area. Rinsing application equipment over the treated area will help avoid run off to water bodies or drainage systems. This pesticide 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.

Physical Or Chemical Hazards

Combustible. Do not use or store near heat or open flame.

International Inventories

TSCA	Listed
DSL/NDSL	Listed
EINECS/ELINCS	Listed
ENCS	Not Listed
IECSC	Listed
KECL	Listed
PICCS	Listed
AICS	Listed

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory **DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List **EURCS** - European Inventory of Existing Chamical Substances/European List of Natified

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances **PICCS** - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

Chemical name	SARA 313 - Threshold Values %	
Malathion - 121-75-5	1.0	

SARA 311/312 Hazard Categories

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Malathion 121-75-5	100 lb	-	-	Х

<u>CERCLA</u>

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302).

Chemical name	Hazardous Substances RQs	Extremely Hazardous Substances RQs
Malathion	100 lb	-
121-75-5		

US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals.

Chemical name	California Proposition 65	
Malathion - 121-75-5	Carcinogen	

U.S. State Right-to-Know Regulations

US State Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Malathion	Х	Х	Х
121-75-5			

16. OTHER INFORMATION

<u>NFPA</u>	Health hazards 3	Flammability 2	Instability 0	Physical and Chemical Properties -
HMIS	Health hazards 3 *	Flammability 2	Physical hazards 0	Personal protection X
Chronic Hazard Star Legen	d *= Chronic	Health Hazard		

Disclaimer

The information provided in this Material Safety Data Sheet is correct to the best of PBI Gordon Corporation's knowledge, information and belief at the date of this publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any other process, unless specified in the text. PBI GORDON CORPORATION MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR COURSE OF PERFORMANCE OR USAGE OF TRADE. Given the variety of factors that can affect the use and application of this product, some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate the product to determine whether it is fit for a particular purpose and suitable for user's method of use or application. Each user is also responsible for

evaluating the conditions of use and designing the appropriate protective mechanisms to prevent employee exposures, property damage, or release to the environment. PBI Gordon Corporation assumes no responsibility for injury to the recipient or third persons, or for any damage to any property resulting from misuse of the product.

End of Safety Data Sheet