

MATERIAL SAFETY DATA SHEET

SECTION 1 -- PRODUCT IDENTIFICATION AND USE

PRODUCT	Cooke Slug-N-Snail Granules Cooke Pest Granules Lilly Miller Go-West Meal Kills Slugs, Snails and Listed Insects Lilly Miller Grasshopper Earwig, Cutworm & Sowbug Bait Kills Slugs and Snails Lilly Miller Slug, Snail & Insect Killer Bait	PRODUCT IDENTIFICATION
IDENTIFIER	EPA REG. NO. 8119-5 8119-5-33116	NUMBER (PIN)

PRODUCT USE	DRY SLUG, SNAIL AND INSECT CONTROL
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MANUFACTURER'S NAME	E.M. MATSON, JR. CO., INC.	SUPPLIER'S NAME	Lilly Miller Brands
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STREET ADDRESS	PO BOX 1820	STREET ADDRESS	16201 SE 98th
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CITY	NORTH BEND	STATE	WA	CITY	Clackamas	STATE	OR
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POSTAL CODE	98045	EMERGENCY TELEPHONE NUMBER	1-800-858-7378	POSTAL CODE	97015
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SECTION 2 -- HAZARDOUS INGREDIENTS

HAZARDOUS INGREDIENTS	%	CAS NUMBER	LD ₅₀ OF INGREDIENT	LC ₅₀ OF INGREDIENT
METALDEHYDE	2%	9002-91-9	N/A	N/A
CARBARYL**	5%	63-25-2	N/A	N/A
ACETALDEHYDE	****	75-07-0	N/A	N/A
****LESS THAN .1%		**1-NAPHTHALENOL, METHYL CARBAMATE		

SECTION 3 -- PHYSICAL DATA

PHYSICAL STATE	DRY, GRANULAR MEAL	ODOR AND APPEARANCE	TAN, GRANULAR MEAL - ODOR OF GRAIN	ODOR THRESHOLD (PPM)	N/A
VAPOR PRESSURE (mm Hg)	N/A	VAPOR DENSITY (AIR=1)	N/A	EVAPORATION RATE	N/A
pH	N/A	SPECIFIC GRAVITY	N/A	BOILING POINT (°C)	N/A
		COEFF. WATER/OIL DIST.	N/A	FREEZING POINT (°C)	N/A

SECTION 4 -- FIRE AND EXPLOSION DATA

FLAMMABILITY	[X] YES [] NO	IF YES, UNDER WHICH CONDITIONS?	AS WITH ANY POWDERED ORGANIC COMPOUNDS, DUST
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EXPLOSIONS MAY BE POSSIBLE BUT NOT LIKELY.

MEANS OF EXTINCTION

DRY CHEMICAL, WATER, CO₂

FLASHPOINT (°C) AND METHOD

N/A

UPPER FLAMMABLE LIMIT

(% BY VOLUME)

N/A

LOWER FLAMMABLE LIMIT

(% BY VOLUME)

N/A

AUTOIGNITION TEMPERATURE (°C)

N/A

HAZARDOUS COMBUSTION PRODUCTS -

OXIDES OF NITROGEN AND CARBON, METHYL ISOCYANATE, TOXIC VAPORS / FUMES OF PARALDEHYDE AND ACETALDEHYDE.

EXPLOSION DATA

N/A

SENSITIVITY TO IMPACT

N/A

SENSITIVITY TO STATIC

DISCHARGE

N/A

SECTION 5 -- REACTIVITY DATA

CHEMICAL STABILITY

YES NO

IF NO, UNDER WHICH CONDITIONS?

INCOMPATIBILITY WITH OTHER SUBSTANCES

YES NO

IF SO, WHICH ONES?

OXIDIZING AGENTS, STRONG ACIDS, BASES

REACTIVITY, AND UNDER WHAT CONDITIONS

HEAT (DECOMPOSITION PRODUCTS OF METALDEHYDE ARE PARALDEHYDE AND ACETALDEHYDE, OF WHICH THE TOXICITY IS KNOWN. ACETALDEHYDE MAY BE OXIDIZED TO ACETIC ACID WHICH MAY CATALYZE THE DECOMPOSITION OF METALDEHYDE.) AVOID EXTREME HEAT AND OPEN FLAME.

HAZARDOUS DECOMPOSITION PRODUCTS

THERMAL DECOMPOSITION MAY PRODUCE TOXIC VAPORS/ FUMES OF PARALDEHYDE, ACETALDEHYDE, OTHER ORGANIC MATERIALS AND OXIDES OF CARBON AND NITROGEN. ALSO, METHYL ISOCYANATE MAY BE PRODUCED.

SECTION 6 -- TOXICOLOGICAL PROPERTIES

ROUTE OF ENTRY

SKIN CONTACT SKIN ABSORPTION EYE CONTACT INHALATION INGESTION

EFFECTS OF ACUTE EXPOSURE TO PRODUCT

METALDEHYDE - SALIVATION, VOMITING, NAUSEA, ACETONURIA, CONVULSIONS, INCREASED BODY TEMPERATURE, DEPRESSION OF MEDULLARY, RESPIRATORY AND VASOMOTOR CONTROL CENTERS, COMA. MAY BE FATAL. OVEREXPOSURE MAY AGGRAVATE EXISTING LIVER, KIDNEY AND BRAIN CONDITIONS. CARBARYL - MAY BE FATAL IF SWALLOWED. CAUSES REVERSIBLE CHOLINESTERASE INHIBITION. REPEATED OVEREXPOSURE MAY CAUSE MORE SEVERE CHOLINESTERASE INHIBITION WITH MORE PRONOUNCED SIGNS AND SYMPTOMS. MAY LEAD TO RAPID ONSET OF NAUSEA, VOMITING, DIARRHEA, ABDOMINAL PAIN, INVOLUNTARY SHAKING, EXCESS SALIVATION, PINPOINT PUPILS, BLURRED VISION, PROFUSE SWEATING, TEMPORARY PARALYSIS, RESPIRATORY DEPRESSION, CONVULSIONS. CAUSES EYE REDNESS, IRRITATION AND TEARING.

EFFECTS OF CHRONIC EXPOSURE TO PRODUCT

OVEREXPOSURE MAY AGGRAVATE EXISTING LIVER, KIDNEY AND BRAIN CONDITIONS. INHALATION OF PRODUCT MAY AGGRAVATE EXISTING CHRONIC RESPIRATORY PROBLEMS SUCH AS ASTHMA, EMPHYSEMA OR BRONCHITIS. SKIN CONTACT MAY AGGRAVATE EXISTING SKIN DISEASE.

EXPOSURE LIMITS

N/A

IRRITANCY OF

PRODUCT N/A

SENSITIZATION TO

PRODUCT N/A

CARCINOGENICITY

YES - ACETALDEHYDE

TERATOGENICITY N/A	REPRODUCTIVE TOXICITY N/A	MUTAGENICITY N/A	SYNERGISTIC PRODUCTS N/A
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SECTION 7 -- PREVENTATIVE MEASURES

PERSONAL PROTECTIVE EQUIPMENT

GLOVES (SPECIFY) LATEX OR RUBBER	RESPIRATOR (SPECIFY) NOT GENERALLY NEEDED FOR OUTDOOR USE	EYE (SPECIFY) SAFETY GLASSES WITH SIDE SHIELDS
FOOTWEAR (SPECIFY) N/A	CLOTHING (SPECIFY) LONG SLEEVED SHIRT	OTHER (SPECIFY) N/A

ENGINEERING CONTROLS (SPECIFY, EG. VENTILATION, ENCLOSED PROCESS)
N/A

LEAK AND SPILL PROCEDURE

CAREFULLY SHOVEL SPILLS INTO APPROPRIATE CONTAINERS FOR DISPOSAL. AVOID GENERATING DUST. WET RESIDUE WITH WATER AND ABSORB WITH INERT MATERIAL (SAND, EARTH, ETC.) AND TRANSFER INTO APPROPRIATE CONTAINERS FOR RECOVERY OR DISPOSAL. KEEP SPILL OUT OF SEWERS AND OPEN BODIES OF WATER.

WASTE DISPOSAL

DO NOT REUSE CARTON. DISCARD CARTON IN TRASH. SECURELY WRAP ORIGINAL CONTAINER IN SEVERAL LAYERS OF NEWSPAPER AND DISCARD IN TRASH. DISPOSE OF IN COMPLIANCE WITH ALL FEDERAL, STATE AND LOCAL LAWS AND REGULATIONS.

HANDLING PROCEDURES AND EQUIPMENT

N/A

STORAGE REQUIREMENTS

STORE IN A COOL, DRY, LOCKED LOCATION OUT OF DIRECT SUNLIGHT, IN ORIGINAL CONTAINER AND NOT ACCESSIBLE TO CHILDREN OR PETS. AVOID CONTAMINATION OF FEED AND FOODSTUFFS.

SPECIAL SHIPPING INFORMATION

N/A

SECTION 8 -- FIRST AID MEASURES

EYES - HOLD EYELIDS OPEN AND FLUSH WITH A STEADY, GENTLE STREAM OF WATER FOR AT LEAST 15 MINUTES. SEEK MEDICAL ATTENTION.

SKIN - IN CASE OF CONTACT, IMMEDIATELY WASH WITH PLENTY OF SOAP AND WATER FOR AT LEAST 5 MINUTES. SEEK MEDICAL ATTENTION IF IRRITATION DEVELOPS OR PERSISTS. REMOVE CONTAMINATED CLOTHING AND SHOES. CLEAN CONTAMINATED CLOTHING AND SHOES BEFORE RE-USE.

INGESTION - IF SWALLOWED, IMMEDIATELY GIVE 3-4 GLASSES OF WATER. DO NOT INDUCE VOMITING. IF VOMITING OCCURS AND VICTIM IS CONSCIOUS, GIVE FLUIDS AGAIN. GET IMMEDIATE MEDICAL ATTENTION. DO NOT LEAVE VICTIM UNATTENDED. VOMITING MAY OCCUR SPONTANEOUSLY. TO PREVENT ASPIRATION OF SWALLOWED PRODUCT, LAY VICTIM ON SIDE WITH HEAD LOWER THAN WAIST. HAVE PHYSICIAN DETERMINE IF PATIENT'S CONDITION ALLOWS INDUCTION OF VOMITING OR EVACUATION OF STOMACH. DO NOT GIVE ANYTHING

BY MOUTH TO AN UNCONSCIOUS OR CONVULSING PERSON.

METALDEHYDE - NOTE TO PHYSICIAN - ACCORDING TO HSDB, ADMINISTRATION OF DIAZEPAM OR CLONIDINE 20 MINUTES AFTER INGESTION OF 1000 MG/KG BY MICE DELAYED THE ONSET OF SYMPTOMS AND REDUCED MORTALITY. THEREFORE, DIAZEPAM AND CLONIDINE MAY BE APPROPRIATE ANTIDOTES TO REDUCE THE SYMPTOMATOLOGY OF METALDEHYDE INGESTION.

CARBARYL - NOTE TO PHYSICIAN - ALL TREATMENTS SHOULD BE BASED ON OBSERVED SIGNS AND SYMPTOMS OF DISTRESS IN THE PATIENT. THIS PRODUCT CONTAINS METHYL CARBAMATE INSECTICIDE, WHICH IS A CHOLINESTERASE INHIBITOR. OVEREXPOSURE TO THIS SUBSTANCE MAY CAUSE TOXIC SIGNS AND SYMPTOMS DUE TO STIMULATION OF THE CHOLINERGIC NERVOUS SYSTEM. THESE EFFECTS OF OVEREXPOSURE ARE SPONTANEOUSLY AND RAPIDLY REVERSIBLE.

INHALATION - REMOVE VICTIM FROM IMMEDIATE SOURCE OF EXPOSURE AND ASSURE THAT THE VICTIM IS BREATHING. IF BREATHING IS DIFFICULT, ADMINISTER OXYGEN, IF AVAILABLE. IF VICTIM IS NOT BREATHING, ADMINISTER CPR (CARDIO-PULMONARY RESUSCITATION). SEEK MEDICAL ATTENTION.

SECTION 9 -- PREPARATION DATE OF MSDS

PREPARED BY - DAVE GRASSMAN/SSD

PHONE - 425-888-6212

DATE - JANUARY 1, 2000