

SAFETY DATA SHEETS

This SDS packet was issued with item:

078889697

The safety data sheets (SDS) in this packet apply to the individual products listed below. Please refer to invoice for specific item number(s).

078889622 078889630 078889648 078889655 078889663 078889671 078889689 078889705 078889713



Merck Animal Health
One Merck Dr.
Whitehouse Station, NJ 08889

MATERIAL SAFETY DATA SHEET

Merck Animal Health urges each user or recipient of this MSDS to read the entire data sheet to become aware of the hazards associated with this material.

SECTION 1. IDENTIFICATION OF SUBSTANCE AND CONTACT INFORMATION

MSDS NAME: Indoxacarb/Permethrin Topical Solution (SCH 900560)

SYNONYM(S): Indoxacarb/Permethrin Topical Solution (SCH 900560)
Activyl Tick Plus Topical Solution

MSDS NUMBER: SP002074

EMERGENCY NUMBER(S): (908) 423-6000 (24/7/365) English Only

Transportation Emergencies - CHEMTREC:
(800) 424-9300 (Inside Continental USA)
(703) 527-3887 (Outside Continental USA)
Rocky Mountain Poison Center (For Human Exposure):
(303) 595-4869

Animal Health Technical Services:
For Animal Adverse Events: Small Animals and Horses: (800) 224-5318
For Animal Adverse Events: Livestock: (800) 211-3573
For Animal Adverse Events: Poultry: (800) 219-9286

INFORMATION: Animal Health Technical Services:
For Small Animals and Horses: (800) 224-5318
For Livestock: (800) 211-3573
For Poultry: (800) 219-9286

MERCK MSDS HELPLINE: (800) 770-8878 (US and Canada)
(908) 473-3371 (Worldwide)
Monday to Friday, 9am to 5pm (US Eastern Time)

SECTION 2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Liquid
Clear to pale yellow
Ether odor
Flammable.
May be harmful by inhalation or if swallowed.
May be irritating to eyes.
Prolonged exposure may cause serious health effects.
May cause effects to:
central nervous system
liver
blood
respiratory system
Dangerous for the environment.
Very toxic to aquatic organisms.
May cause long-term adverse effects in the aquatic environment.

POTENTIAL HEALTH EFFECTS:

This product is an insecticide. The active ingredients in this formulation are permethrin and indoxacarb.

Based on animal studies, this product may be irritating to eyes. However, it is not expected to be a skin irritant or a skin sensitizer.

The following summary is based upon available information about the individual ingredients of the mixture, or of the expected properties of the mixture.

This product contains permethrin, a synthetic Type I pyrethroid ester. Occupational exposure to permethrin has induced temporary skin and facial sensations (feelings of numbness and tingling). Workers exposed to permethrin have also reported irritative symptoms, such as itching and burning of the skin, itching and irritation of the eyes, and irritation of the upper respiratory tract as well as increased nasal secretions. Anaphylactic reactions including bronchospasm and shock may occur in very sensitive individuals. Ingestion of large amounts may cause central nervous system effects resulting in seizures, coma, and respiratory arrest.

Ingestion of pyrethroid esters has caused stomach pain, nausea and vomiting, headache, dizziness, numbness and tingling, anorexia, fatigue, tremors, and intermittent convulsions.

Diethylene Glycol Monoethyl Ether (DGME) is low in oral toxicity. May cause irritation to the eyes and it is not irritating to the skin. DGME can be absorbed in toxic amounts through the skin but without excessive exposure serious effects are unlikely. Target organs include the brain, kidney, liver thymus and testes. In animal studies, fetotoxicity, embryotoxicity and teratogenicity were observed.

LISTED CARCINOGENS

No carcinogens or potential carcinogens listed by OSHA, IARC, NTP or ACGIH are present in concentrations >0.1% in this mixture.

SECTION 3. COMPOSITION AND INFORMATION ON INGREDIENTS

PRODUCT USE: Veterinary product

CHEMICAL FORMULA: Mixture.

The formulation for this product is proprietary information. Only hazardous ingredients in concentrations of 1% or greater and/or carcinogenic ingredients in concentrations of 0.1% or greater are listed in the Chemical Composition table. Active ingredients in any concentration are listed. For additional information about carcinogenic ingredients see Section 2.

CHEMICAL COMPOSITION

INGREDIENT	CAS NUMBER	PERCENT
Permethrin Technical	52645-53-1	40-50
Indoxacarb	173584-44-6	10-20
Dowanol PM: (Propylene Glycol Methyl Ether)	107-98-2	40-50

MSDS NAME: Indoxacarb/Permethrin Topical
Solution (SCH 900560)
Latest Revision Date: 07-May-2012

MSDS NUMBER: SP002074

ADDITIONAL INFORMATION:

This MSDS is written to provide health and safety information for individuals who will be handling the final product formulation during research, manufacturing, and distribution. For health and safety information for individual ingredients used during manufacturing, refer to the appropriate MSDS for each ingredient. Refer to the package insert or product label for handling guidance for the consumer.

SECTION 4. FIRST AID MEASURES**INHALATION:**

Remove to fresh air. If any trouble breathing, get immediate medical attention. Administer artificial respiration if breathing has ceased. If irritation or symptoms occur or persist, consult a physician. Remove to fresh air. Administer artificial respiration if breathing has ceased. IMMEDIATELY consult a physician.

SKIN CONTACT:

In case of skin contact, while wearing protective gloves, carefully remove any contaminated clothing, including shoes, and wash skin thoroughly with soap and water. If irritation or symptoms occur or persist, consult a physician. In case of skin contact, IMMEDIATELY flush exposed skin thoroughly with plenty of water. While wearing protective gloves, remove any contaminated clothing, including shoes and continue to wash skin thoroughly with soap and water for at least 15 minutes. Get IMMEDIATE medical attention.

EYE CONTACT:

In case of eye contact, immediately rinse eyes thoroughly with plenty of water. If wearing contact lenses, remove only after initial rinse, and continue rinsing eyes for at least 15 minutes. If irritation occurs or persists, consult a physician.

INGESTION:

Rinse mouth and drink a glass of water. Do not induce vomiting unless under the direction of a qualified medical professional or Poison Control Center. If symptoms persist, consult a physician. Do not induce vomiting unless under the direction of a qualified medical professional or Poison Control Center. IMMEDIATELY consult a physician. Do not attempt to give anything by mouth to a seizing, drowsy or unconscious person. If alert, rinse mouth and drink a glass of water.

SECTION 5. FIRE FIGHTING MEASURES**FLAMMABILITY DATA:**

Flash Point: 33.5 deg C

SPECIAL FIRE FIGHTING PROCEDURES:

Wear full protective clothing and self-contained breathing apparatus (SCBA).

SUITABLE EXTINGUISHING MEDIA:

Carbon dioxide (CO₂), extinguishing powder or water spray.

See Section 9 for Physical and Chemical Properties.

SECTION 6. ACCIDENTAL RELEASE MEASURES**PERSONAL PRECAUTIONS:**

Wear appropriate personal protective equipment as specified in Section 8. Keep personnel away from the clean-up area.

SPILL RESPONSE / CLEANUP:

All spills should be handled according to site requirements and based on precautions cited in the MSDS. In the case of liquids, use proper absorbent materials. For laboratories and small-scale operations, incidental spills within a hood or enclosure should be cleaned by using a HEPA filtered vacuum or wet cleaning methods as appropriate. For large dry or liquid spills or those spills outside enclosure or hood, appropriate emergency response personnel should be notified. In manufacturing and large-scale operations, HEPA vacuuming prior to wet mopping or cleaning is required.

ENVIRONMENTAL PRECAUTIONS:

This product is very toxic to aquatic organisms. This product is toxic to wildlife. Do not allow product to reach ground water, water course, sewage or drainage systems.

See Sections 9 and 10 for additional physical, chemical, and hazard information.

SECTION 7. HANDLING AND STORAGE**HANDLING:**

Keep containers adequately sealed during material transfer, transport, or when not in use. Wash face, hands, and any exposed skin after handling. Do not eat, drink, or smoke when using this substance or mixture.

Appropriate handling of this material is dependent on many factors, including physical form, duration and frequency of process or task, and effectiveness of engineering controls. Site-specific risk assessments should be conducted to determine the feasibility and the appropriateness of all exposure control measures. See Section 8 (Exposure Controls) for additional guidance.

STORAGE:

Store in a cool, dry, well ventilated area. Store in adequately sealed container.

See Section 8 for exposure controls and additional safe handling information.

SECTION 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

OCCUPATIONAL EXPOSURE BAND (OEB):

OEB 3: 10-100 mcg/m³. Materials in an OEB 3 category are considered moderate health hazards. The OEB is a range of airborne concentrations expressed as an 8-hour Time Weighted Average (8-hr. TWA) and is intended to be used with Industrial Hygiene Risk Assessment to assist with industrial hygiene sampling and selection of proper controls for worker protection. Consult your site safety and industrial hygiene staff for guidance on handling and control strategies.

OCCUPATIONAL EXPOSURE GUIDELINE (OEG):

Internal Occupational Exposure Limit of 20 mcg/m³ and a wipe limit of 200 mcg/100 cm² have been established for Indoxacarb.

EXPOSURE CONTROLS

The health hazard risks of handling this material are dependent on many factors, including physical form, duration and frequency of process or task, and effectiveness of engineering controls. Site-specific risk assessments should be conducted to determine the feasibility and the appropriateness of all exposure control measures. Exposure controls for normal operating or routine procedures follow a tiered strategy. Engineering controls are the preferred means of long-term or permanent exposure control. If engineering controls are not feasible, appropriate use of personal protective equipment (PPE) may be considered as alternative control measures. Exposure controls for non-routine operations must be evaluated and addressed as part of the site-specific risk assessment.

RECOMMENDED PERSONAL PROTECTIVE EQUIPMENT (PPE):

Respiratory Protection:	Respiratory protective equipment (RPE) may be required for certain laboratory and large-scale manufacturing tasks if potential airborne breathing zone concentrations of substances exceed the relevant exposure limit(s). Workplace risk assessment should be completed before specifying and implementing RPE usage. Potential exposure points and pathways, task duration and frequency, potential employee contact with the substance, and the ability of the substance to be rendered airborne during specific tasks should be evaluated. Initial and ongoing strategies of quantitative exposure measurement should be obtained as required by the workplace risk assessment. All RPE must conform to local and regional specifications for efficacy and performance. Consult your site or corporate health and safety professional for additional guidance.
Skin Protection:	Gloves that provide an appropriate barrier to the skin are recommended if there is potential for contact with this material. Consult your site safety staff for guidance.
Eye Protection:	Safety glasses with side shields. Use of goggles or full face protection may be required based on hazard, potential for contact, or level of exposure. Consult your site safety staff for guidance.
Body Protection:	In small-scale or laboratory operations, lab coats or equivalent protection is required. Disposable Tyvek or other dust impermeable suit should be considered based on procedure or level of exposure. Use of additional PPE such as shoe coverings, gauntlets, hood, or head covering may be necessary. Consult your site safety staff for guidance. In large-scale or manufacturing operations, disposable Tyvek or other dust impermeable suit is recommended and based on level of exposure. Use of additional PPE such as shoe coverings, gauntlets, hood, or head covering may be necessary. Consult your site safety staff for guidance.

EXPOSURE LIMIT VALUES

INGREDIENT	CAS NUMBER	ACGIH TLV (TWA)	OSHA PEL (TWA)
Dowanol PM: (Propylene Glycol Methyl Ether)	107-98-2	100 ppm	

INGREDIENT	CAS NUMBER	ACGIH TLV (STEL / SKIN)	ACGIH TLV (CEIL)	OSHA PEL (STEL / SKIN)	OSHA PEL (CEIL)
Dowanol PM: (Propylene Glycol Methyl Ether)	107-98-2	150 ppm			

No exposure limits are available for the active ingredient(s) or any other hazardous ingredient in this formulation.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

FORM: Liquid

MSDS NAME: Indoxacarb/Permethrin Topical Solution (SCH 900560)

Latest Revision Date: 07-May-2012

MSDS NUMBER: SP002074

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

COLOR: Clear to pale yellow
ODOR: Ether odor
SPECIFIC GRAVITY: 1.096
SOLUBILITY:
Water: Permethrin = 6 mg/L at 20°C Indoxacarb = 0.20 mg/L at 20°C
PARTITION COEFFICIENT (log Pow): Permethrin: log Kow = 6.50
Indoxacarb: log Kow = 4.65

See Section 5 for flammability/explosivity information.

SECTION 10. STABILITY AND REACTIVITY

STABILITY/ REACTIVITY:
Stable under normal conditions.

INCOMPATIBLE MATERIALS / CONDITIONS TO AVOID:
None known.

HAZARDOUS DECOMPOSITION PRODUCTS / REACTIONS:
No dangerous decomposition is expected if used according to manufacturer's specifications.

SECTION 11. TOXICOLOGICAL INFORMATION

The information presented below is for this material unless otherwise indicated.

ACUTE TOXICITY DATA

INHALATION:
Indoxacarb dust mixture (21% active with non-active isomer): LC50 > 5 mg/L (4-hr. inhalation) study in rats.

Permethrin: LC50 (4hr): 2.3 mg/L (rat)

Propylene glycol methyl ether: LC50 (4hr): 6 mg/L (rat)

Exspot (with Dowanol) has similar formulation as Indoxacarb/Permethrin Topical Solution.
Exspot (with Dowanol): No mortality occurred in rats exposed to 2.19 mg/L for 4 hours. Clinical effects noted during the study included crusting around the nose, hypersensitivity, piloerection, and polyuria. Effects resolved by Day 7 of the study.

SKIN:
Indoxacarb/Permethrin Topical Solution: Dermal LD50: > 2000 mg/kg (rat).

Indoxacarb/Permethrin Topical Solution was not irritating to the skin of rabbits. The primary irritation index (PII) was 0.0 (0-8 scale).

EYE:
Indoxacarb/Permethrin Topical Solution: Iritis was observed in 2/3 animals (Rabbits) at 1 and 24 hours post dose. Conjunctival redness, chemosis and discharge were observed in all animals at 1, 24 and 48 hour post dose. By 72 hours post-dose, 1/3 animal was observed with slight conjunctival redness. All effects resolved by day 5.

ORAL:
Indoxacarb/Permethrin Topical Solution: LD50: >2000 mg/kg (rat)

DERMAL AND RESPIRATORY SENSITIZATION:
Indoxacarb/Permethrin Topical Solution: Not a skin sensitizer in a dermal sensitization study in guinea pigs.

REPEAT DOSE TOXICITY DATA

SUBCHRONIC / CHRONIC TOXICITY:

Indoxacarb: In a 90-day rat feeding study, indoxacarb caused hematological (hemolysis, hemolytic anemia) effects, and decreased body weight (greater in females than males). Female rats in the 4.1 and 8.5 mg/kg/day groups had decreases in the indicators of erythrocyte mass: red blood cell count, hemoglobin concentration, and hematocrit. These decreases, though small, were usually between 10 and 17% relative to control and were associated with other changes that indicated a slight regenerative response (e.g. increased reticulocyte counts). These hematologic effects were of equivocal biological significance based on the absence of clinical anemia by the end of the exposure period. Despite the absence of anemia, red cell effects were considered to be adverse based on the magnitude of decreases observed and the associated regenerative response [LOEL = 4.1 mg/kg/day (female); NOEL = 1.7 mg/kg/day (females) and 3.2 mg/kg/day (males)]. Subchronic 90-day studies in mice and dogs with a similar test substance showed similar effects with less sensitivity than female rats [NOAEL = 2.1-4.6 mg/kg/day].

In sub-chronic studies ranging from 14 days to 26 weeks, rats and mice were treated with oral dosages of permethrin up to 10,000 mg/kg. Dose-dependent effects such as an increase in liver/body weight ratio, hypertrophy of the liver, and clinical signs of poisoning such as tremor were observed. The no-observed effects-level (NOEL) in rats ranged from 20 mg/kg diet (in studies lasting 90 days or 6 months) to 1500 mg/kg diet (in a 6-month study). Chronic studies ranging from 1 to 2 years were conducted in rats, mice and dogs. Dosages varied with species ranging from 1 mg/kg/day to 375 mg/kg/day of permethrin. Target organs of toxicity were the liver (increased liver weight and hepatocellular swelling), lung (increased weight), and testes (decreased weight). Depression and increased mortality were observed in mice at 75 mg/kg/day and above. Additional signs and symptoms of toxicity in the rat include hyperexcitation, sparring behavior, aggressiveness, enhanced startle response, whole body tremor and prostration.

Rats exposed to propylene glycol methyl ether at concentrations as high as 3000 ppm, 6hr/day, for 9 days exhibited reversible central nervous system depression. No other effects were observed. No evidence of adverse effects were observed in rats and monkeys exposed to 800 ppm for 132 daily exposures over a period of 186 days.

REPRODUCTIVE / DEVELOPMENTAL TOXICITY:

Indoxacarb: The developmental toxicity of indoxacarb was evaluated in rats at dosages as high as 3.5 mg/kg/day. Indoxacarb was not teratogenic at any dosages tested. The NOAEL for both maternal and fetal toxicity was 2.0 mg/kg/day based on slight decreases in body weight parameters at the high dosage of 3.5 mg/kg/day. There were no effects reported in a 2-generation reproductive study with a similar test substance [NOAEL = 20 ppm for both dams and offspring based on decreases in body weight parameters].

In a three-generation reproductive study with permethrin, rats were administered doses ranging from 25 to 125 mg/kg/day. Systemic effects observed in the offspring were seen in the liver (hepatocyte hypertrophy and eosinophilia) and eye (infantile glaucoma). Body tremors were observed in the parents and offspring at 125 mg/kg/day. No teratogenic effects, maternal toxicity or fetotoxicity were observed in rats and rabbits administered 200 and 400 mg/kg/day, respectively, of permethrin.

Pregnant rats and rabbits exposed by inhalation to propylene glycol methyl ether at concentrations up to 3000 ppm did not exhibit teratogenic or embryotoxic effects. Slight fetotoxicity in the form of delayed sternebral ossification was observed in the offspring of rats exposed at 3000 ppm; a dose that was also maternally toxic. In a continuous breeding study, no change in reproductive parameters was observed in mice treated orally with 3333 mg/kg.

MUTAGENICITY / GENOTOXICITY:

Indoxacarb: Test have shown that indoxacarb does not cause genetic damage in bacterial or mammalian cell cultures or in animals. Negative in bacterial reverse mutation assay, the in vitro mammalian chromosome aberration test, and the in vivo mouse bone marrow micronucleus test.

Permethrin was negative in a bacterial mutagenicity study (Ames) and in a mammalian mutagenicity study (mouse lymphoma).

Propylene glycol methyl ether was negative in a variety of assays.

CARCINOGENICITY:

This material or product has not been evaluated for carcinogenicity.

Indoxacarb: Similar test substances were evaluated in 2-year studies with rats, mice, and dogs. Hematological effects and reduced body weight were observed consistent with 90-day studies. No tumor formation was reported.

Six carcinogenicity assays, three each in mice and rats, were conducted with permethrin. No tumorigenicity was seen in rat studies. However, species specific increases in pulmonary adenomas, a common benign tumor of mice with a high spontaneous background incidence, were seen in the three mouse studies. In one of these studies, there was an increased incidence of pulmonary alveolar cell carcinomas and benign liver adenomas when permethrin was administered in the diet at 5,000 ppm.

SECTION 12. ECOLOGICAL INFORMATION

The below aquatic and avian toxicity is for the DuPont product (DPX-MP062), a mixture containing 75% active indoxacarb with inactive isomer.

ECOTOXICITY DATA

PRODUCT / CHEMICAL NAME

Indoxacarb

STUDY TYPE

96-hr LC50 (bluegill)
 96-hr LC50 (rainbow trout)
 48-hr EC50 (daphnid)

RESULT

0.9 mg/L
 0.65 mg/L
 0.6 mg/L

INGREDIENT ECOTOXICITY

Permethrin: 96-hr LC50 (fathead minnow): 16 mg/L
 Permethrin: 48-hr LC50 (rainbow trout): 5.4 µg/L
 Permethrin: 96-hr LC50 (bluegill sunfish): 1.8 µg/L
 Permethrin: 96-hr LC50 (brook trout): 2.2 to 4.8 µg/L
 Permethrin: 96-hr LC50 (channel catfish): 1.1 µg/L
 Permethrin: 48-hr EC50 (daphnid): 0.2 to 22 µg/L

ENVIRONMENTAL DATA

Partition Coefficient (log Pow) Results:

Permethrin: BCF = 480-560; expected to bioaccumulate in aquatic organisms.
 Indoxacarb: Has the potential to bioaccumulate based on Log Kow (4.65).

Soil Adsorption/Desorption Results:

Indoxacarb: This product is expected to be immobile in soil (Koc = 3300 to 9600)

Biodegradation Results:

Permethrin: This product is expected to be immobile in soil (Koc = 10,471 to 86,000).
 Indoxacarb: Moderately persistent with aerobic half lives ranging from 3 to 693 days and anaerobic range from 147 to 233 days.
 Permethrin: Hydrolytically stable at pH 5 & 7; $t_{1/2}$ = 5 days at pH 9; biodegradation half-life < 4 weeks.

OTHER INGREDIENT ENVIRONMENTAL DATA:

Indoxacarb M factor = 1. Permethrin M factor = 1000.

ADDITIONAL ECOTOXICITY / ENVIRONMENTAL INFORMATION:

Indoxacarb has been reported to be very toxic to freshwater and estuarine/marine fish and invertebrates. Risk to bees: High toxicity via contact routes
 Indoxacarb: Bobwhite quail (Oral) LD50 = 98 mg/kg
 Mallard duck (5 day) dietary > 5620 ppm
 Worms (14 day) LC50 > 1250 mg/kg

SECTION 13. DISPOSAL CONSIDERATIONS**MATERIAL WASTE:**

Disposal must be in accordance with applicable federal, state/provincial, and/or local regulations. Incineration is the preferred method of disposal, when appropriate. Operations that involve the crushing or shredding of waste materials or returned goods must be handled to meet the recommended exposure limit(s).

PACKAGING AND CONTAINERS:

Disposal must be in accordance with applicable federal, state/provincial, and/or local regulations.

SPECIAL ENVIRONMENTAL HANDLING PROCEDURES:

This product contains materials that are harmful to the environment. Do not allow product to reach ground water, water courses, sewage or drainage systems.

SECTION 14. TRANSPORT INFORMATION

Refer to site-specific procedures and requirements for additional guidance.

DOT CLASSIFICATION:

Proper Shipping Name: Flammable liquids, n.o.s. (Propylene Glycol Methyl Ether)
 Hazard Class: 3
 UN Number: UN 1993
 Packing Group: III

IATA/ICAO CLASSIFICATION:

Proper Shipping Name: Flammable liquids, n.o.s. (Propylene Glycol Methyl Ether)
 Hazard Class: 3
 UN Number: UN 1993
 Packing Group: III

MSDS NAME: Indoxacarb/Permethrin Topical
 Solution (SCH 900560)
 Latest Revision Date: 07-May-2012

MSDS NUMBER: SP002074

ADR CLASSIFICATION:

Proper Shipping Name: Flammable liquids, n.o.s. (Propylene Glycol Methyl Ether)
Hazard Class: 3
UN Number: UN 1993
Packing Group: III
Classification Code: F1

IMDG/IMO CLASSIFICATION:

Proper Shipping Name: Flammable liquids, n.o.s. (Propylene Glycol Methyl Ether)
Hazard Class: 3
UN Number: UN 1993
Packing Group: III

SECTION 15. REGULATORY INFORMATION**TSCA LISTING**

INGREDIENT	TSCA
Dowanol PM: (Propylene Glycol Methyl Ether)	X

Substances not included in the table above are TSCA exempt or not regulated under TSCA.

U.S. STATE REGULATIONS

INGREDIENT	California Proposition 65	CARTK	NJRTK	CTRTK	MARTK
Permethrin Technical			3422		X
Dowanol PM: (Propylene Glycol Methyl Ether)		X	1613		X

INGREDIENT	PARTK	MNRTK	MIRTK	RIRTK
Dowanol PM: (Propylene Glycol Methyl Ether)	X	X		X

Fields in the above tables that do not contain data indicate that those materials have not been listed by local regulations.

X: Listed on applicable state hazardous substance or right-to-know lists.

SECTION 16. OTHER INFORMATION

Although reasonable care has been taken in the preparation of this document, we extend no warranties and make no representations as to the accuracy or completeness of the information contained therein, and assume no responsibility regarding the suitability of this information for the user's intended purposes or for the consequence of its use. Each individual should make a determination as to the suitability of the information for their particular purpose(s).

DEPARTMENT ISSUING MSDS:

Global Safety & the Environment
Merck & Co., Inc.
One Merck Drive
Whitehouse Station, NJ 08889

MERCK MSDS HELPLINE:

(800) 770-8878 (US and Canada)
(908) 473-3371 (Worldwide)
Monday to Friday, 9am to 5pm (US Eastern Time)

MSDS CREATION DATE:

08-Dec-2008

SUPERSEDES DATE:

28-Sep-2011

SIGNIFICANT CHANGES (US SUBFORMAT):

OEB, OEG, Transportation, Ecotox data, Synonyms

MSDS NAME: Indoxacarb/Permethrin Topical
Solution (SCH 900560)
Latest Revision Date: 07-May-2012

MSDS NUMBER: SP002074