

### Section 1: Identification of the Substance and Supplier

<b>Product name</b>	<b>Activyl</b>
<b>Recommended use</b>	For topical flea treatment in cats and dogs
<b>Company details</b>	<b>MSD Animal Health, 33 Whakatiki Street, Upper Hutt</b>  <b>Phone: 0800 800 543 Fax: 0800 808 100</b> <b>Website: www.msd-animal-health.co.nz</b> <b>Hours: 8 am – 5 pm, Mon – Fri</b>
<b>Emergency telephone</b>	<b>0800 764 766 (0800 POISON) 24 hours human health</b> <b>0800 243 622 (0800 CHEMCALL) 24 hours</b>
<b>Date of preparation</b>	April 2014

### Section 2: Hazards Identification

<b>Hazard classifications</b>	3.1B, 6.1D, 6.3B, 6.4A, 6.5B, 6.9A, 9.1B, 9.3C, 9.4B
<b>Priority identifiers</b>	<b>DANGER</b>
<b>Secondary identifier</b>	3.1B Highly flammable liquid and vapour – keep away from sources of ignition 6.1D May be harmful if swallowed, inhaled or absorbed through skin 6.3B May cause mild skin irritation 6.4A May cause eye irritation. 6.5B May cause an allergic skin reaction. 6.9A May cause damage to the central nervous, respiratory and blood and hematopoietic systems from repeated oral exposure at high doses. 9.1B Toxic to aquatic organisms with long lasting effects. 9.3C Harmful to terrestrial vertebrates 9.4B Toxic to terrestrial invertebrates
<b>Risk &amp; Safety Phrases</b>	R20/21/22 Harmful by inhalation, in contact with skin or if swallowed. R11 Highly flammable R67 Vapours may cause drowsiness and dizziness

### Section 3: Composition/Information on Ingredients

Chemical name	CAS number	Concentration
Indoxacarb	173584-44-6	19.53%
Triacetin	102-76-1	20 - 30%
Ethyl Acetoacetate	141-97-9	20 - 30%
Isopropyl Alcohol	67-63-0	35.4 %

#### Section 4: First Aid Measures

<b>Necessary first aid measures</b>	<p><b>SKIN CONTACT</b> In case of skin contact, carefully remove any contaminated clothing, including shoes, and wash skin thoroughly with soap and water. If irritation or symptoms occur or persist, consult a doctor.</p> <p><b>EYE CONTACT</b> 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 doctor.</p> <p><b>INGESTION</b> Rinse mouth and drink a glass of water. DO NOT induce vomiting unless under the direction of a qualified medical professional or Poison Control Centre. If symptoms persist, consult a doctor.</p> <p><b>INHALATION</b> Remove affected person promptly to fresh air. If any trouble breathing, signs of drunkenness (intoxication or inebriation) or dizziness, nausea or unconsciousness occurs, get immediate medical attention. Administer artificial respiration if breathing has ceased.</p>
<b>Required instructions</b>	For advice contact the National Poisons Centre 0800 POISON (0800 764 766) or a doctor.

#### Section 5: Fire Fighting Measures

<b>Type of hazard</b>	Flammable (Contains isopropyl alcohol).
<b>Fire hazard properties</b>	Burning can produce carbon monoxide and/or carbon dioxide.
<b>Regulatory requirements</b>	Two fire extinguishers are required where quantities greater than 250L are present.
<b>Extinguishing media and methods</b>	Use carbon dioxide (CO <sub>2</sub> ), extinguishing powder or water spray.
<b>Hazchem code</b>	2YE (Contain spillage)
<b>Recommended protective clothing</b>	Wear full protective clothing and self-contained breathing apparatus (SCBA).

#### Section 6: Accidental Release Measures

<b>Emergency procedures</b>	Wear chemical resistant gloves and overalls, facemask or goggles. Prevent further spillage. Adsorb spilled product with non-combustible absorbent material and place in sealable container for disposal. Wash down affected area with water plus detergent. Absorb and collect washings and place in the same sealable container for disposal. Seek advice from the local authority regarding disposal. Avoid contamination of any water source or soil with product or empty container.
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#### Section 7: Handling and Storage

<b>Precautions for safe handling</b>	Avoid contact with skin, eyes, and mucosa. Keep containers adequately sealed during material transfer, transport, or when not in use. See Section 8 (Exposure Controls) for additional guidance.
<b>Regulatory requirements</b>	Signage required where quantities greater than 250L are present. Emergency Plan required where quantities greater than 1,000L are present. Two fire extinguishers are required where quantities greater than 250L are present. Location certificate required where quantities greater than 100L are present. Hazardous Atmosphere Zone applicable where quantities greater than 100L are present.

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present.

### Handling practices

Avoid contact with skin. Keep containers adequately sealed during material transfer, transport, or when not in use.

### Approved handlers

Required where quantities greater than 500L are present.

### Conditions for safe storage

Store in original packaging. Keep packaging sealed when not in use. Keep out of reach of children. Keep away from heat, sparks, open flame or other sources of ignition.

### Store site requirements

Store at room temperature away from foodstuffs in the original package to protect from moisture. Do not refrigerate. Keep away from heat, sparks, open flames, and direct sunlight. Avoid extreme heat.  
Not to be stored with explosives, flammable gases in bulk, poisonous gasses, spontaneously combustible substances, oxidizing agents, organic peroxides or radioactive substances.

### Packaging

Schedule 4

## Section 8: Exposure Control/Personal Protection

### Workplace exposure standards

No WESs are set for this product.

### Application in the workplace Exposure standards outside the workplace Personal protection

Ensure adequate ventilation. Keep container sealed when not in use.

TEL – not applicable

Wear chemical resistant gloves, facemask or goggles.

## Section 9: Physical and Chemical Properties

Appearance	Off white to yellow liquid
Boiling Point	Not determined
Melting/Softening point	Not determined
Vapour Pressure	Not determined
Specific Gravity	1.00
Solubility (H <sub>2</sub> O)	Not determined
Percent Volatiles	Not determined
Flash Point	1.5°C
Evaporation Rate	Not determined

## Section 10: Stability and Reactivity

### Stability of the substance

Stable under normal conditions.

### Conditions to avoid

Keep away from heat, sparks, open flame and direct sunlight.

### Material to avoid

Avoid food products.

### Hazardous decomposition products

No dangerous decomposition is expected if used according to manufacturer's specifications.

### Section 11: Toxicological Information

#### Acute effects for individual ingredients or product as specified

INHALATION	LC50 (8hr): 16,000 ppm (rat) (Isopropyl Alcohol)
SKIN	Dermal LD50: > 2000 mg/kg (Rat). No abnormal clinical signs or irritation reported.(Activyl)
EYE	Moderately irritating in a rabbit eye irritation study (MTS = 22.7). (Activyl)
TEL	No TEL is set for this substance at this time.

Isopropyl Alcohol: Acute exposure by ingestion or inhalation may cause headache, dizziness, hallucinations, distorted perception, labored breathing, nausea, and vomiting.

Ethyl Acetoacetate has been reported to cause irritation to eyes and respiratory system.

Activyl: In an acute oral rat study, 1/5 animals had to be euthanized due to moribund condition following dosing with 2000mg/kg. In this moribund animal, abnormal gait and stance, piloerection, decreased body tone and activity, gasping, vocalization, and tearing eyes were observed. Other than the one moribund animal, no visible lesions were observed at necropsy of the other animals dosed in this study and no clinical signs were observed in animals treated with doses below 2000 mg/kg (175 mg/kg and 550 mg/kg).

#### Chronic/long term effects for individual ingredients only

Isopropyl Alcohol: Chronic exposure may also cause thinning, inflammation, drying and cracking of the skin.

### Section 12: Environmental Information

#### Effects for individual ingredients only

AQUATIC	Indoxacarb: 96-hr LC50 (bluegill) 0.9 mg/L Indoxacarb: 96-hr LC50 (rainbow trout) 0.65 mg/L Indoxacarb: 48-hr EC50 (daphnid) - 0.6 mg/L
SOIL	Indoxacarb: This product is expected to be immobile in soil (Koc = 3300 to 9600)
BIODEGRADATION	Indoxacarb: Moderately persistent with aerobic half-lives ranging from 3 to 693 days and anaerobic range from 147 to 233 days.
TERRESTRIAL VERTEBRATES	Indoxacarb: Bobwhite quail (Oral) LD50 = 98 mg/kg Indoxacarb: Mallard duck (5 day) dietary > 5620 ppm Triacetin: Frog (Oral) LDLo = 150 mg/kg
TERRESTRIAL INVERTEBRATES	Indoxacarb: Risk to bees: High toxicity via contact routes Indoxacarb: Worms (14 day) LC50 > 1250 mg/kg
EEL	Not applicable

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

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### Section 13: Disposal Considerations

<b>Disposal information</b>	<b>Disposal of Product and Container</b> Dispose of used pipette and sachet by wrapping with paper and putting in household waste. Avoid contamination of any water supply with product or empty container
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### Section 14: Transport Information

<b>Relevant information</b>	UN1219 Isopropanol solution. Class 3 Limited quantities/Consumer commodity  Tracking not required.
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### Section 15: Regulatory Information

<b>Regulatory status</b>	ACVM Registration No: A10996 For conditions of registration see <a href="http://www.foodsafety.govt.nz">www.foodsafety.govt.nz</a>  HSNO Approval Code: HSR100757. For a full listing of controls see <a href="http://www.epa.govt.nz">www.epa.govt.nz</a>
<b>HSNO and ACVM controls</b>	<b>Emergency Plan:</b> >1,000L <b>Signage:</b> >250L <b>Number of Fire extinguishers:</b> 2 for $\geq 250L$ <b>Approved Handlers:</b> >500L <b>Location Certificate:</b> >100L

### Section 16: Other Information

<b>Additional information</b>	Activyl is a registered trademark.
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