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| Infosafe No™ 3NV4Y | Issue Date : July 2020 | ISSUED by NUFARMNZ |
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 Product Name **Flume®**

1. Identification

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| GHS Product Identifier | Flume® |
| Product Code | 04280 |
| Product Type | Adjuvant |
| Company Name | Nufarm NZ |
| Address | 6 Manu Street, Otahuhu Auckland 2024 New Zealand |
| Telephone/Fax Number | Tel: 0-9-270 4150 |
| Emergency phone number | 0800 651 911 |
| E-mail Address | nzinfo@nufarm.com |
| Recommended use of the chemical and restrictions on use | A superior spreading adjuvant to improve coverage of horticultural and agricultural products in low volume applications. |
| Other Information | This SDS describes, to the best of our knowledge, the properties of the concentrated product. The physical properties and some of the assessments do not apply to the properties of the product once it has been diluted for application. Acute health effects of the diluted product are likely to be much less severe. |

2. Hazard Identification

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| GHS classification of the substance/mixture | Classified as Dangerous Goods for transport according to the New Zealand Standard NZS 5433:2012 Transport of Dangerous Goods on Land. |
| Signal Word (s) | WARNING |
| Hazard Statement (s) | H302 Harmful if swallowed. H316 Causes mild skin irritation. H319 Causes serious eye irritation. H332 Harmful if inhaled. H411 Toxic to aquatic life with long lasting effects. H432 Toxic to terrestrial vertebrates. |
| Precautionary statement – General | P101 If medical advice is needed, have product container or label at hand. P102 Keep out of reach of children. P103 Read label before use. |
| Pictogram (s) | Exclamation mark, Health hazard |



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| Precautionary statement – Prevention | P261 Avoid breathing dust/fume/gas/mist/vapours/spray. P264 Wash contaminated skin thoroughly after handling. P270 Do not eat, drink or smoke when using this product. P271 Use only outdoors or in a well-ventilated area. P280 Wear protective gloves/protective clothing/eye protection/face protection. |
| Precautionary statement – Response | P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. P330 Rinse mouth. P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P332+P313 If skin irritation occurs: Get medical advice/attention. P337+P313 If eye irritation persists: Get medical advice/attention. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. |

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| Precautionary statement – Disposal | Remove contact lenses, if present and easy to do. Continue rinsing. P391 Collect spillage. P501 In the case of a substance that is in compliance with a HSNO approval other than a Part 6A (Group Standards) approval, a label must provide a description of one or more appropriate and achievable methods for the disposal of a substance in accordance with the Hazardous Substances (Disposal) Regulations 2001. This may also include any method of disposal that must be avoided. See Section 13 for disposal details. |
| Other Information | 6.1D acute toxicant, 6.3B skin irritant, 6.4A eye irritant, 9.1D aquatic toxicant, 9.3B terrestrial vertebrate toxicant, |

3. Composition/information on ingredients

| Ingredients | Name | CAS | Proportion |
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| | Siloxane Polyalkyleneoxide Copolymer | Proprietary | 40-80 % |
| | Alcohol Ethoxylate | Proprietary | 20-30 % |

4. First-aid measures

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| First Aid Measures | For advice contact the National Poisons Centre 0800 POISON (0800 764 766) or a doctor immediately. Begin artificial respiration if the victim is not breathing. Use mouth-to-nose rather than mouth-to-mouth. Obtain medical attention. |
| Inhalation | Remove affected person to fresh air until recovered. If symptoms develop or persist, seek medical advice. |
| Ingestion | Never give anything by mouth to an unconscious person. If swallowed do NOT induce vomiting. For advice, contact the National Poisons Centre (0800 764 766). Seek medical assistance immediately. |
| Skin | Immediately flush body and clothes with large amounts of water. Remove contaminated clothing and footwear. Wash affected areas with soap and water. If a large area is affected seek medical assistance. |
| Eye contact | Flush eyes with plenty of water for 15 minutes holding eyelids open if necessary. Seek medical assistance. Remove contact lenses if present and easy to do. |
| First Aid Facilities | Facilities storing or utilizing this material should be equipped with an eyewash facility and safety shower. |
| Advice to Doctor | Treat symptomatically. No known specific antidote. Any material aspirated during vomiting may cause lung injury. |

5. Fire-fighting measures

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| Suitable extinguishing media | Water, foam, carbon dioxide or dry chemical. |
| Special Protective Equipment for fire fighters | Breathable air apparatus should be worn when fighting a fire in which this product is involved. |
| Specific Methods | Keep up wind. Do not allow washings to reach sewage or effluent systems. |
| Hazchem Code | 2Z |
| Decomposition Temp. | No data available. |
| Other Information | Location Certificate: Not applicable Hazardous Atmosphere Zone: Not applicable Number of Fire Extinguishers: Not applicable |

6. Accidental release measures

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| Spills & Disposal | Wear protective clothing. Clear area of unprotected personnel. Contain spill and absorb with sand, soil or absorbent granules. If spill does enter waterways contact the local authority. Collect in an appropriate sealable container for disposal in an approved landfill. |
| Personal Protection | For appropriate personal protective equipment (PPE), refer Section 8. |

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| Environmental Precautions | Prevent from entering drains, waterways or sewers. |
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7. Handling and storage

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| Precautions for Safe Handling | It is the duty of the PCBU that a person who uses, handles, manufactures or stores a hazardous substance (including hazardous waste) is provided information, instruction and training in accordance with Regulation 4.5 of the Health and Safety at work (Hazardous Substances) Regulations 2017. Avoid skin and eye contact and inhalation of spray mist. CERTIFIED HANDLER : Not required. TRACKING: Not required. RECORD KEEPING: Not required. |
| Conditions for safe storage, including any incompatibilities | Store in the closed, original container in a cool, well ventilated area. Do not store for prolonged periods in direct sunlight. |
| Other Information | Always read the label and any attached leaflet before use. |

8. Exposure controls/personal protection

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| Occupational exposure limit values | No exposure standards have been set for this product. |
| Appropriate engineering controls | Handle in well ventilated areas, generally natural ventilation is adequate. |
| Personal Protective Equipment | When opening the container, preparing spray and using the prepared spray wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow-length rubber gloves and face shield or goggles. |
| Hygiene Measures | After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash contaminated clothing and safety equipment. Wash splashes of concentrate from skin immediately. |

9. Physical and chemical properties

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| Form | Liquid |
| Colour | Yellow. |
| Odour | Mild odour. |
| Decomposition Temperature | No data available. |
| Melting Point | No data available. |
| Melting/Freezing Point | -5°C |
| Boiling Point | >150°C (estimated) |
| Solubility in Water | Dispersible. |
| Specific Gravity | 1.0067 @25°C |
| pH | 5-8 |
| Vapour Pressure | <1.33 h/Pa (1.00mmHg) at 20°C |
| Vapour Density (Air=1) | No data available. |
| Odour Threshold | No data available. |
| Partition Coefficient: n-octanol/water | No data available. |
| Flash Point | 110°C |
| Flammability | Not Flammable. |
| Auto-Ignition Temperature | No data available. |

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Flammable Limits - Lower No data available.

Flammable Limits - Upper No data available.

Kinematic Viscosity No data available.

10. Stability and reactivity

Reactivity The product is unlikely to react or decompose under normal storage conditions.

Chemical Stability Stable under normal conditions of handling and storage.

Conditions to Avoid This product should be kept in a cool place, preferably below 30°C. Store in the closed original container in a dry, cool, well-ventilated area out of direct sunlight.

Incompatible Materials Strong oxidizing agents, strong acids and strong bases.

Hazardous Decomposition Products Burning can produce the following combustion products: Oxides of carbon, oxides of silicon, carbon monoxide. Carbon monoxide is highly toxic if inhaled; carbon dioxide in sufficient concentrations can act as an asphyxiant. Acute overexposure to the products of combustion may result in irritation of the respiratory tract.

Hazardous Polymerization Hazardous polymerisation will not occur.

11. Toxicological Information

Acute Toxicity - Oral LD50 (rat)= >2,000 mg/kg

Acute Toxicity - Dermal LD50 (rat)= >2,000mg/kg

Acute Toxicity - Inhalation LC50 = No data available.

Skin This product is a skin irritant.(rabbit)

Eye This product is an eye irritant.(rabbit)

Carcinogenicity No data available.

Reproductive Toxicity No data available.

STOT-single exposure No data available.

STOT-repeated exposure No data available.

Aspiration Hazard No data available.

Chronic Effects No information available, no chronic effects expected.

Mutagenicity No data available.

Respiratory Irritation No data available.

12. Ecological information

Persistence and degradability Not readily biodegradable.

Mobility No data available.

Bioaccumulative Potential No data available.

Other Adverse Effects No data available.

Acute Toxicity - Fish EC50 (96hr) (Oncorhynchus mykiss)= 4.5 mg/L

NOEC (96hr) (Oncorhynchus mykiss)= 3.2 mg/L

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| Acute Toxicity - Daphnia | EC50 (48hr) (Daphnia Magna)= 24 mg/L NOEC (48hr) (Daphnia Magna)= 5.6 mg/L |
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13. Disposal considerations

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| Product Disposal | Dispose of product only by using according to the label, or at an approved landfill. |
| Container Disposal | Triple rinse empty container and add rinsate to spray tank. Recycle empty container. Otherwise crush and bury in a suitable landfill. |

14. Transport information

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| Transport Information | It is good practice not to transport agricultural chemical products with food, food related materials and animal feedstuffs. |
| U.N. Number | 3082 |
| UN proper shipping name | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. - (contains siloxane polyalkyleneoxide copolymer) |
| Transport hazard class(es) | 9 |
| Hazchem Code | 2Z |
| Packing Group | III |
| EPG Number | - |
| IERG Number | 47 |
| IMO Marine Pollutant | Yes. Environmentally Hazardous Substance mark required. |
| Other Information | Segregation: Check the latest Land Transport Rule Dangerous Goods Rule 45001 for additional information. Sea transport may require additional segregation. Refer NZS5433 sea segregation for details. |

15. Regulatory information

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| National and or International Regulatory Information | This product does not require registration under the ACVM Act. Approved pursuant to the HSNO Act 1996, Approval Code HSR002503 See www.epa.govt.nz for approval controls. |
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16. Other Information

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| Date of preparation or last revision of SDS | First issue. |
| Contact Person/Point | IN AN EMERGENCY, DIAL 111 - FIRE OR POLICE 24Hr Tollfree Emergency No: 0800 651 911 24Hr Emergency No: National Poisons Centre Phone: 0800 764 766 ...End Of MSDS... |

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