Section 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: Nu-Film-P
Non-Ionic Spreader-Sticker

Company: MILLER CHEMICAL & FERTILIZER (AUSTRALIA) PTY LTD.
Address: Level 3 / 141-149 Ifould Street,
Adelaide, SA 5000
ACN/ABN: 086 969 628
Telephone Number: 08 8290 9300 Fax Number: 08 8290 9350
Full Product Name: Nu-Film-P Non-Ionic Spreader-Sticker
Other Names: di-1-p-menthene. Pinolene (Pinolene is a terpenic polymer and a proprietary derivative of di-1-p-menthene chemistry).
Use: Nu-Film-P Non Ionic sticker-spreader is designed to hold pesticides on crop foliage, to enable the pesticide to be more effective for a longer period of time.

DISTRIBUTED BY: Agspec Australia Pty Ltd
Address: Lot 1 Wandilo Road,
Mt Gambier, SA 5291
ACN/ABN: 40 109 573 953
Telephone Number: 0427 490 551 Fax Number: 08 8125 6555
Emergency Contact: 0457 773 363

Section 2. HAZARDS IDENTIFICATION

Not classified as hazardous according to criteria of ASCC.
Not classified as a Dangerous Good according to the ADG Code

Section 3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients*:
CHEMICAL PROPORTION
di-1-p-menthene 904 g/L
Other ingredients determined not to be hazardous 1-5% w/w
* The formulation of this product is proprietary information

Section 4. FIRST AID MEASURES

FIRST AID
Ingestion: If poisoning occurs, contact a doctor or Poisons Information Centre. Phone Australia 131126.
Eye contact: If in eyes, hold eyes open, flood with water for at least 15 minutes and see a doctor if irritation occurs and persists.
Skin contact: If skin contact occurs, remove contaminated clothing and wash skin thoroughly with soap and water.
Inhalation: Remove to fresh air.
Advice to Doctor: Treat symptomatically.
Section 5.  FIRE FIGHTING MEASURES

Extinguishing media:  This product is a combustible liquid (flash point > 200°C). Extinguish fire using water, carbon dioxide, foam or dry agent. Contain all runoff.

Hazards from combustion products:  Combustible liquid (C2). Can emit toxic fumes when heated in a fire.

Precautions for fire-fighters and special protective equipment:  Isolate fire area. Evacuate downwind residents. Wear full protective clothing and self contained breathing apparatus. Do not breathe smoke or vapours generated.

Section 6.  ACCIDENTAL RELEASE MEASURES

Emergence procedures / Material and methods for containment and cleanup procedures:  For good hygiene practices, wear protective equipment to prevent skin contamination. In the case of spillage, contain and absorb spilled material with absorbent material such as sand, clay or cat litter and dispose of waste as indicated below or according to the Australian Standard 2507-1998 - Storage and Handling of Agricultural and Veterinary Chemicals.

Section 7.  HANDLING AND STORAGE

Precautions for safe Handling:  No smoking, eating or drinking should be allowed where material is used or stored. This product is a C2 Combustible liquid – refer to AS 1940-2004 (amdt 2) The Storage and Handling of Flammable and Combustible Liquids for more information on the storage and handling of combustible liquids. Wash hands after use.

Conditions for safe Storage:  Not classified as a Dangerous Good. This product is a not a schedule poison. Store in the closed, original container in a well ventilated area away from children. Do not store for prolonged periods in direct sunlight. Do not re-use container for any purpose.

Section 8.  EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines:  No exposure limits have been established for this product by ASCC.

Biological Limit Values:  No biological limit allocated.

Engineering controls:  Use in ventilated areas. Keep containers closed when not in use. No special engineering controls are required for normal use.

Personal Protective equipment (PPE):
Skin:  Use normal hygiene practises when opening the container and using the product, by wearing cotton overalls and rubber gloves. Wash before smoking, eating or using toilet facilities. Wash hands after use.
Respiratory Protection:  Generally not required.

Section 9.  PHYSICAL AND CHEMICAL PROPERTIES

Appearance:  Amber coloured liquid.
Odour:  Terpene odour.
Boiling point:  No data available.
Freezing point:  No data available.
Specific Gravity:  0.96 at 20°C.
Solubility in Water:  Not soluble - forms an emulsion.
pH:  Neutral.
Flammability:  Combustible liquid (C2).
Corrosive hazard:  Not corrosive.
Flashpoint (°C):  > 200°C.
Flammability Limits (%):  Not established.
Poisons Schedule:  Not a scheduled poison.
Section 10. STABILITY AND REACTIVITY

Chemical Stability: Product is considered stable.
Conditions to avoid: Avoid exposure to heat.
Incompatible materials: Can react with oxidising agents and acid catalysts.
Hazardous Decomposition Products: If involved in a fire, it may emit fumes containing toxic compounds.
Hazardous Reactions: No special considerations.

Section 11. TOXICOLOGICAL INFORMATION

Potential Health Effects:

ACUTE EFFECTS
Swallowed: Low toxicity. Acute oral LD$_{50}$ > 16,000 mg/kg.
Eye: Not irritating.
Skin: Low toxicity. Acute dermal LD$_{50}$ > 16,000 mg/kg. Generally not irritating, may cause very mild irritation in sensitive people.
Inhaled: Low toxicity. Acute inhalation LD$_{50}$ > 2.46 mg/L/4 hour (highest concentration attainable, no deaths recorded).

Long Term Exposure: None known.

Section 12. ECOLOGICAL INFORMATION

Environmental Toxicology: Essentially non toxic to bees (48hr LC$_{50}$ > 200µg/bee) and earthworms (14 day LC$_{50}$ > 1000 ppm).

Environmental Fate: di-1-p-menthene, the active ingredient in this product is degraded in soils by microorganisms in approximately 15 days. However, it is not readily degradable in water and is partly soluble in water. It may cause long term adverse effects in aquatic environments. It has no inhibitory effects to sewage micro organisms.

Section 13. DISPOSAL CONSIDERATIONS

Spills and Disposal: Persons involved in cleanup should use normal hygiene practices when cleaning up spills - see section 8. In case of spillage, contain and absorb spilled material with absorbent material such as clay, sand or cat litter and dispose of waste as indicated below. Keep material out of streams and sewers. Vacuum, shovel or pump waste into an approved drum. Dispose of drummed wastes, including decontamination solution in accordance with the requirements of Local or State Waste Management Authorities.

Disposal of empty containers: Triple or preferably pressure rinse containers before disposal. Add rinsings to spray tank. Do not dispose of undiluted chemicals on-site. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, break, crush, or puncture and bury empty containers in a local authority landfill. If no landfill is available, bury the containers below 500 mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt.

Section 14. TRANSPORT INFORMATION

This product is not classified as a Dangerous Good. Product is a combustible liquid (C2).
Section 15. REGULATORY INFORMATION

Under the Standard for Uniform Scheduling of Drugs and Poisons (SUSDP), this product is not a scheduled poison.
This product is registered under the Agricultural and Veterinary Chemicals Code Act 1994. Product Registration No. 52216.
This product is not classified as a Hazardous Substance under the criteria of ASCC.
This product is not classified as a Dangerous Good under the Australian Code for the Transport of Dangerous Goods by Road and Rail.
This product is classified as tolerance exempt under USA - EPA guidelines.
This product is registered in California USA.
This product is has EU clearance for export crops.
This product is approved for Organic Production (Refer Organic Certifiers re status).
Nu-Film-P is a registered trademark of Miller Chemical & Fertilizer Corporation - USA.
Pinolene is a registered trademark of Miller Chemical & Fertilizer Corporation - USA.

Section 16. OTHER INFORMATION

Issue Date: 8 April 2010. (Revised to update address and telephone details).

Key to abbreviations and acronyms used in this MSDS:
ADG Code = Australian Dangerous Goods Code (for the transport of dangerous goods by Road and Rail).
ASCC = Australian Safety & Compensation Council [formally known as the National Occupational Health & Safety Commission (NOHSC)].
PPE = Personal protective equipment.

References

This MSDS summarises our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this MSDS and consider the information in the context of how the product will be handled and used in the workplace including in conjunction with other products.

If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company.

End MSDS