

Material Safety Data Sheet

1. IDENTIFICATION OF MATERIAL AND SUPPLIER

PRODUCT NAME: DEFENSE

Synonyms: None

Recommended Use: Aerosol Metal Parts Protector – 300gm

Supplier: Minehan Agencies Pty Ltd

Address: 29 Camuglia Street GARBUTT Townsville Queensland Australia 4814

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E-mail: inquiry@minehanagencies.com.au

Emergency telephone number: 0408 777 800 (24Hrs Australia)

2. HAZARDS IDENTIFICATION

This product is classified as:

Hazardous Substance according to criteria of the National Occupational Health and Safety Commission (NOHSC).

Dangerous Goods according to the Australian Dangerous Goods Code (ADG Code).

Approved Criteria Classification (Calculated).	Extremely FLAMMABLE (F) R12, TOXIC (T) R45 HARMFUL (Xn) R65, R38 Safety Phrases S1/2, S36/37/39
SUSDP Classification	Not Scheduled
ADG Classification	Class 2.1 (Flammable Aerosol.)
Un Number	1950

EMERGENCY OVERVIEW

COLOUR	Brown
PHYSICAL DESCRIPTION	Aerosol
ODOUR	Petroleum
MAJOR HEALTH HAZARD	Extremely Flammable. May Cause Cancer. Respiratory tract damage. Irritant to eyes, skin, and lungs

Material Safety Data Sheet

POTENTIAL HEALTH EFFECTS

Inhalation: Short term exposure. Vapour is irritating to nose and throat and may cause nausea, vomiting, difficulty breathing, headache, drowsiness, symptoms of drunkenness, and lung congestion. **Long term Exposure.** Possible lung and respiratory tract damage. May trigger pre-existing respiratory complaints. Repeated overexposure may cause progressive and potentially irreversible damage to the peripheral nervous system, particularly in arms and legs.

Skin Contact: Short term exposure. Defatting and drying of Skin **Long term exposure.** Prolonged use may cause irritation, redness and dermatitis.

Eye Contact: Short term exposure. Will cause strong irritation but will not injure eye tissue.. **Long-term exposure.** Not know.

Ingestion: Short term exposure. Headaches, nausea, and severe abdominal pain may result. Vomiting may cause product to be aspirated into the lungs possibly resulting in chemical pneumonitis. **Long-term exposure.** May cause cancer

Carcinogen Status

NOHSC	Yes
NTP	Not Classified
IARC	Not Classified

3. COMPOSITION / INFORMATION ON INGREDIENTS

CHEMICAL ENTITY	CAS No	PROPORTION W/W %
LPG	68476-85-7	10-30%
Heptane	142-82-5	10-30%
Petroleum Distillates	8002-05-9	10-30%
Other ingredients determined not to be hazardous		to 100%

4. FIRST AID MEASURES

Poison Information Centres in each State capital city can provide additional assistance for Scheduled Poisons: Phone (Australia 13 1126).

Inhalation: Remove victim from exposure. Remove contaminated clothing and loosen remaining clothing. Perform artificial respiration if needed. Allow patient to assume most comfortable position and keep warm. Seek medical attention.

Skin Contact: Remove contaminated clothing. Wash contaminated skin for at least 15-20mins with of water, or until no evidence of the chemical remains. If swelling, redness, blistering, or irritation occurs seek medical advice. Wash clothing before re-use.

Eye Contact: Immediately irrigate with copious quantities of water for at least 15 minutes. Eyelids to be held open. If present, remove contact lenses. Seek medical attention.

Ingestion: Immediately rinse mouth with water. Do NOT induce vomiting. Seek urgent medical attention.

Material Safety Data Sheet

Notes to Physician: Treat symptomatically. Excessive exposure to propellant may aggravate Respiratory, Cardiovascular or Pulmonary illnesses due to replacement of oxygen in the air by inert gases.

5. FIRE FIGHTING MEASURES

Flash Point: 65°C

Fire and Explosion Hazard: Flammable Aerosol. Vapour may form explosive mixtures with air. Closed containers exposed to heat may violently explode.

Specific Hazards: Sealed containers may explode in a large fire.

Fire Fighting: Move containers from fire area if it can be done without risk. Cover exposed liquid with foam. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas. **Suitable Extinguishing Media:** Use foam, CO₂ or dry chemical powder to extinguish surrounding fire.

Hazardous Decomposition in Products: On burning may emit fumes including carbon monoxide, carbon dioxide, and partially burned hydrocarbons. Fire fighters to wear self-contained breathing apparatus if risk of exposure to vapour or products of combustion.

Hazchem Code: 3WE

6. ACCIDENTAL RELEASE MEASURES

Flammable liquid. Remove all ignition sources. Stop leak if possible without personal risk. Wear protective equipment to prevent personal injury (see section 8). **Small leaks (1-2cans)** Remove all ignition sources. Cover with an absorbent material (soil, sand or other inert material). Collect and seal in properly labelled containers for disposal. Hose down area with large amounts of dilute detergent. Caution, Slip Hazard. **Large spills (>2 Cans) Remove all ignition sources. Consider evacuation of area.** Prevent run off into drains and waterways. Dam material. Cover with foam to prevent ignition then apply absorbent material. Collect and seal in properly labelled containers for disposal. Hose down area with large amounts of dilute detergent. Keep unnecessary people away, isolate hazard area and deny entry. If contamination of sewers or waterways has occurred, advise local emergency services.

7. HANDLING AND STORAGE

Store in a well-ventilated area away from heat and ignition sources. Store in a cool, dry place and out of direct sunlight. Store away from foodstuffs, strong oxidizing agents, and strong acids. Store in original containers. Do not store in plastic containers. Keep containers closed when not in use – check regularly for leaks. This material is a Class 2.1 Flammable Aerosol and must be stored, maintained and used in accordance with the relevant regulations. Handle using good industrial hygiene practices (see section 8 on personal protection).

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits: No value has been assigned for this specific material by NOHSC. However exposure limits for ingredients are shown below

Material Safety Data Sheet

Ingredient	TWA	STEL	Notices
LPG	1000ppm	---	
Heptane	85ppm	440ppm	
Petroleum Distillates	85ppm	440ppm	

TWA – the Time-Weighted Average airborne concentrations over an eight hour working day, for a five day week over an entire working life.

STEL (Short Term Exposure Limit) – the average airborne concentration over a 15 minute period which should not be exceeded at any time during a normal eight hour work day. According to current knowledge, these concentrations should neither impair the health of, nor cause undue discomfort to, nearly all workers.

Sk Notice – absorption through the skin may be a significant source of exposure. The exposure standard is invalidated if such contact should occur.

Sen Notice- Sensitiser. The substance can cause a specific immune response in some people. An affected individual may subsequently react to minute levels of that substance.

These exposure standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. Exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

Biological Limit Value: No biological limit allocated

Engineering Controls: Use only in well ventilated areas. Exhaust ventilation may be required to prevent build-up of flammable vapours and to maintain air concentrations below Exposure Standards. Flameproof equipment is necessary in any area where product is being used. Product transfer and storage equipment must be earthed. Keep containers closed when not in use.

Personal Protection Equipment

Respirator Type (AS 1716): If inhalation risk exists, wear organic vapour respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716.

Eye Protection: Safety glasses with side shields or goggles should be worn as described in Australian Standard AS/NZS 1337 – Eye Protectors for Industrial Applications.

Glove Type: Impervious PVC or rubber gloves should be worn.

Clothing: Suitable protective clothing should be worn eg: cotton overalls buttoned at neck and wrist.

Work/Hygienic Practices: Always wash hands before smoking, eating, drinking or using the toilet.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Aerosol		Water Solubility	Immiscible
Colour	Brown		Vapour Pressure	124 mmHg
Odour	Petroleum		Vapour Density	>1 (air =1)
Boiling Point	Unknown		Evaporation Rate	5 (butyl acetate=1)
Melting Point	Unknown		% Volatiles	100%
Freezing Point	Unknown		Flash Point	65 °C
Specific Gravity	0.90g/ml (water =1)		Flammability Limits	LEL 1.1 %- UEL 7.5 %
Ph (neat)	NA		Ignition Temperature	Unknown

Material Safety Data Sheet

10. STABILITY AND REACTIVITY

Reactivity: Stable at normal temperatures and pressure.

Conditions to Avoid: Temperatures above 48°C
Avoid contact with incompatible materials.

Incompatibilities: Strong Oxidising Agents, Strong Acids
Explosive reactions may occur with strong oxidising agents.
Violent heat producing reactions may occur with strong acids.

Hazardous Decomposition: Thermal decomposition products include, sulphur dioxide, carbon dioxide, carbon monoxide, and Nitrous oxides.

Polymerisation: Will not polymerise.

11. TOXICOLOGICAL INFORMATION

Defense Aerosol

Local Effects: Irritant: Inhalation, skin, eyes, and ingestion.

Target Organs: Lungs, Blood, CNS, and Kidneys and Liver.

Classification of Hazardous Ingredients

Ingredients	R Phrases
LPG	R12, R45
Heptane	R11, R65, R38, R67
Petroleum Distillates	R11, R45

Individual Ingredient Information

LPG

Irritation Data: No known applicable information

Toxicity Data: No known applicable information

Local Effects: Irritant: inhalation, skin, eyes

Acute Toxicity Level: Toxic by inhalation at concentrations well above TWA

Target Organs: Respiratory System, Central Nervous System.

Mutagenic Data: No known applicable information

Reproduction Effects Data: No known applicable information

Heptane

Material Safety Data Sheet

Irritation Data: No known applicable information

Toxicity Data: Lowest published lethal dose 75000mg/m³/2hours inhalation mouse. LD50 rat inhalation 103gm/m³/4hours

Local Effects: Irritant: inhalation, skin, eyes

Acute Toxicity Level: Lowest published toxic concentration, inhalation humans, 1000ppm/6mins; hallucinations distorted perception.

Target Organs: Respiratory System, Central Nervous System.

Mutagenic Data: No known applicable information

Reproduction Effects Data: No known applicable information

Petroleum

Irritation Data: Eye rabbit 100mg mild

Toxicity Data: Lowest published toxic dose in humans 57mg/kg. However Repeated overexposure may cause progressive and potentially irreversible damage to the peripheral nervous system, particularly in arms and legs

Local Effects: Irritation eyes, nose throat; dizziness, drowsiness, headache, nausea; dried cracked skin; chemical pneumonitis.

Acute Toxicity Level: Toxic by inhalation at concentrations above TWA

Target Organs: Respiratory System, Central Nervous System, Eyes, Skin.

Mutagenic Data: No known applicable information

Reproduction Effects Data: No known applicable information

12. ECOLOGICAL INFORMATION

General Statement: It is expected that this product will have adverse ecological effects. It is recommended that extreme caution be taken to avoid discharge to waterways, grasslands and other areas with local fauna and flora.

Ecotoxicity: No specific information available for this product however it is expected that this product is toxic to aquatic life and continuous exposure is likely to result in adverse effects in these organisms.

Persistence and Degradability: No specific information available for this product, however it is expected that this product will persist in the environment and not rapidly degrade.

Mobility: No specific information available for this product.

13. DISPOSAL CONSIDERATIONS

Refer to State/Territory Land Waste Management Authority for disposal, show this MSDS for their consideration. Empty containers not to be recycled or used for any other purpose. Dispose in accordance with local regulations.

Material Safety Data Sheet

14. TRANSPORTATION INFORMATION

UN No	1950
Proper Shipping Name	Flammable Aerosol.
ADG Code	Class 2.1
Sub Risk	Class 6.1
Packing Group	II
Special Precautions	None
Hazchem Code	3WE
EPG	2A1
Segregations	Yes

15. REGULATORY INFORMATION

SUSDP: Not Scheduled

AICS: All of the constituents of this material are listed on the ACIS.

16. OTHER INFORMATION

Issue Date: August, 2010

Reason(s) For Issue: Updated format to comply with NOHSC: 2011(2003).

Labelling Details

First line of Label must read: CAUTION Flammable Aerosol

Other statements to include

R10	Flammable Liquid
R45	May cause cancer
R38	Irritating to skin
R43	May cause sensitisation by skin contact
R65	Harmful: May cause lung damage if swallowed.
S1/2	Keep locked up and out of reach of children.
S36/37/39	Wear Suitable protective clothing, gloves and eye/face protection
S45	In case of accident or if you feel unwell, seek medical advice immediately (show the label wherever possible).

Abbreviations & Acronyms

SUSPD: Standard for the Uniform Scheduling of Drugs and Poisons

ADG: Australian Code for the Transport of Dangerous Goods by Road and rail

N.O.S. Not Otherwise Specified

CAS No: Chemical Abstracts Service Registry Number

UN No: United Nations Number

R-Phrases: Risk Phrases

S-Phrases: Safety Phrases

HAZCHEM Code: Hazardous Chemical emergency action code

NOHSC: National Occupational Health and Safety Commission

IARC: International Agency for Research into Cancer

ACIS: Australian Inventory of Chemical Substances

NTP: National Toxicology Program (USA)

Literary references:

Product name: Defense Aerosol

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Version: III

Page 7 of 8

Material Safety Data Sheet

Approved Criteria for Classifying Hazardous Substances [NOHSC: 1008(41999)]
National Code of Practice for the Preparation of Material Safety Data Sheets 2nd Edition [NOHSC: 2011(2003)]
Exposure Standards for Atmospheric Contaminants in the Occupational Environment
Guidance Note [NOHSC: 3008(1995)] National Exposure Standards [NOHSC: 10005(1999)]
List of Designated Hazardous Substances [NOHSC: 10005(1999)]
Standard for the Uniform Scheduling of Drugs and Poison No. 17
The Australian Code for the Transport of Dangerous Goods by Road and Rail EDITION 6

Disclaimer

This MSDS summarises at the date of issue our best knowledge of the health and safety hazard information of the product and in particular how to safely handle and use the product in the workplace.

Since Minehan Agencies Pty Ltd cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, review this MSDS in the context of how the user intends to handle and use the product in the workplace i.e. a risk analysis.

If clarification or further information is needed to ensure that an appropriate assessment can be made, the user should contact Minehan Agencies Pty Ltd.