

SAFETY DATA SHEET.

Issuing date 29-Sep-2015

Revision Date 08-May-2018

Version 1.01

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product name THE DEFENDER

Recommended use of the chemical and restrictions on use

Product Type

Extremely flammable aerosol

Synonyms

None

Supplier's details

Recommended Use

Dry Rust Preventative.

Uses advised against

No information available

Manufactured By:

Nanoplas Inc.
2950 Prairie St., SW
Grandville, MI 49418

Emergency telephone number

Chemical Emergency Phone Number

Chemtrec 1-800-424-9300

Company Emergency Phone Number

616-452-3707

2. HAZARDS IDENTIFICATION

Classification

Serious eye damage/eye irritation	Category 2B
Aspiration toxicity	Category 1
Flammable aerosols	Category 1
Gases under pressure	Compressed Gas

GHS Label elements, including precautionary statements

Emergency Overview

DANGER

Hazard Statements

Causes eye irritation
May be fatal if swallowed and enters airways
Extremely flammable aerosol
Contains gas under pressure; may explode if heated



Appearance opaque

Physical state Aerosol

Odor Solvent

Precautionary Statements - Prevention

Wash hands and face thoroughly after handling
Keep away from heat/sparks/open flames/hot surfaces. — No smoking
Do not spray on an open flame or other ignition source
Pressurized container: Do not pierce or burn, even after use

Precautionary Statements - Response

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
Do NOT induce vomiting

Precautionary Statements - Storage

Store locked up
Protect from sunlight. Store in a well-ventilated place
Do not expose to temperatures exceeding 122°F (50°C)

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

None

Other information

- Toxic to aquatic life with long lasting effects

0.17979% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %*
PROPANE/ISOBUTANE/N-BUTANE	68476-86-8	90-100
PETROLEUM DISTILLATES	64742-47-8	1-10

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

First aid measures for different exposure routes

General advice	Avoid contact with eyes, skin, and clothing. Avoid breathing, vapors, mist, or gas.
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes. Consult a physician if irritation persists.
Skin contact	Wash off immediately with soap and plenty of water. Get medical attention immediately if symptoms occur.
Inhalation	Move to fresh air. If not breathing, give artificial respiration. If breathing has stopped, contact emergency medical services immediately.
Ingestion	Do NOT induce vomiting. Call a physician immediately. Never give anything by mouth to an unconscious person. Risk of product entering the lungs on vomiting after ingestion.

Most important symptoms/effects, acute and delayed

Main Symptoms	Causes skin and eye irritation. Inhalation causing Central Nervous System effects. Ingestion causing lung damage.
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Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician	Treat symptomatically.
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5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

water fog. Dry chemical. Carbon dioxide (CO₂). Cool containers / tanks with water spray.

Unsuitable Extinguishing Media Do not use a solid water stream as it may scatter and spread fire.

Specific hazards arising from the chemical

Extremely Flammable/Flammable . Keep product and empty container away from heat and sources of ignition. Flammable. Keep product and empty container away from heat and sources of ignition.

Explosion Data

Sensitivity to Mechanical Impact none.

Sensitivity to Static Discharge Yes.

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Use shielding to protect fire-fighters from bursting containers.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Use with adequate ventilation to keep the exposure levels below the OELS.

Environmental precautions

Environmental precautions Report spills as required by local and federal regulations.

Methods and materials for containment and cleaning up

Methods for Containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Contain liquid and collect with an inter,non-combustible material.

7. HANDLING AND STORAGE**Precautions for safe handling**

Advice on safe handling Avoid contact with eyes. Avoid breathing vapors or mists. Contents under pressure. Do not puncture or incinerate cans. Do not stick pin or any other sharp object into opening on top of can. Avoid skin contact. Use with adequate ventilation. Keep container away from heat, flames, and all other sources of ignition. Keep can away from all sources of electricity such as electric motors and batteries. Do not spray on hot surfaces.

Conditions for safe storage, including any incompatibilities

Technical measures/Storage conditions Keep containers tightly closed in a cool, well-ventilated place.

Incompatible products Store away from strong acids, alkalis, or oxidizing agents.

Aerosol Level 3

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Control parameters****Exposure Guidelines**

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
PROPANE/ISOBUTANE/N-BUTANE 68476-86-8	74-98-6: TWA: 1000 ppm 106-97-8: STEL: 1000 ppm 75-28-5: STEL: 1000 ppm	74-98-6: TWA: 1000 ppm TWA: 1800 mg/m ³ (vacated) TWA: 1000 ppm (vacated) TWA: 1800 mg/m ³ 106-97-8: (vacated) TWA: 800 ppm (vacated) TWA: 1900 mg/m ³	74-98-6: IDLH: 2100 ppm TWA: 1000 ppm TWA: 1800 mg/m ³ 106-97-8: TWA: 800 ppm TWA: 1900 mg/m ³ 75-28-5: TWA: 800 ppm TWA: 1900 mg/m ³

ACGIH: (American Conference of Governmental Industrial Hygienists)

OSHA: (Occupational Safety & Health Administration)

NIOSH IDLH: Immediately Dangerous to Life or Health

Other Exposure Guidelines Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Exposure controls

Engineering Measures Ventilation systems. Use adequate ventilation to keep the exposure levels below the OELs.

Individual protection measures, such as personal protective equipment

Eye/Face Protection Safety glasses with side-shields.

Skin and body protection	Chemical resistant apron. Protective gloves.
Respiratory protection	If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.
Hygiene measures	Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical and chemical properties

Physical state	Aerosol	Odor	Solvent
Appearance	opaque	Odor Threshold	No information available
Color	dark green		
<u>Property</u>	<u>Values</u>	<u>Remarks • Methods</u>	
pH	No information available		
Melting/freezing point	No information available		
Boiling point/boiling range	No information available		
Flash Point	-104.4 °C / -156 °F	Based on propellant	
Evaporation rate	No information available		
Flammability (solid, gas)	No information available		
Flammability Limits in Air			
upper flammability limit	No information available		
lower flammability limit	No information available		
Vapor pressure	No information available		
Vapor density	No information available		
Specific Gravity	0.574		
Water solubility	Practically insoluble		
Partition coefficient: n-octanol/water	No information available		
Autoignition temperature	No information available		
Decomposition temperature	No information available		
Viscosity	No information available		
Explosive properties	No information available		

Other information

VOC Content(%)	99.18
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10. STABILITY AND REACTIVITY

Reactivity

Stable under recommended storage conditions

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

None under normal processing.

Conditions to Avoid

Extremes of temperature and direct sunlight.

Incompatible Materials

Store away from strong acids,alkalis, or oxidizing agents.

Hazardous Decomposition Products

Carbon oxides. Fumes. Hydrocarbons.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information	Product does not present an acute toxicity hazard based on known information
Inhalation	Exposure to high vapour concentrations may cause nervous systems effects such as headache, nausea, and dizziness.
Eye contact	May cause irritation.
Skin contact	None known.
Ingestion	Not acutely toxic. Aspiration into the lungs during swallowing may be harmful.

Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
PETROLEUM DISTILLATES 64742-47-8	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 5.2 mg/L (Rat) 4 h

Information on toxicological effects

Symptoms	Symptoms of overexposure may be headache, dizziness, tiredness, nausea, and vomiting. Causes eye and skin irritation. May cause respiratory system irritation. Aspiration into the lungs during swallowing may cause serious lung damage which may be harmful. May cause mild irritation to eyes. Not acutely toxic. Aspiration into the lungs during swallowing may cause serious lung damage which may be fatal.
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Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation	No information available.
Eye damage/irritation	May cause slight irritation.
Sensitization	No information available.
Germ Cell Mutagenicity	No information available.
Carcinogenicity	There are no known carcinogenic chemicals in this product.
Reproductive toxicity	The ingredients are not reproductive hazards.
Specific target organ systemic toxicity (single exposure)	None known.
Specific target organ systemic toxicity (repeated exposure)	None known.
Chronic toxicity	Intentional misuse by deliberately concentrating and inhaling contents may be harmful or fatal. Chronic hydrocarbon abuse has been associated with irregular heart rhythms and potential cardiac arrest.
Target Organ Effects	Central nervous system, Central Vascular System (CVS), Eyes, Respiratory system, Skin, Kidney, Peripheral Nervous System (PNS).
Aspiration hazard	May be fatal if swallowed and enters airways.

Numerical measures of toxicity - Product Information

Unknown Acute Toxicity	0.17979% of the mixture consists of ingredient(s) of unknown toxicity
The following values are calculated based on chapter 3.1 of the GHS document .	
ATEmix (oral)	17255 mg/kg
ATEmix (dermal)	2315 mg/kg
ATEmix (inhalation-dust/mist)	6.3 mg/l
ATEmix (inhalation-vapor)	55096 mg/l

12. ECOLOGICAL INFORMATION

Ecotoxicity

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to microorganisms	Toxicity to daphnia and other aquatic invertebrates
PROPANE/ISOBUTANE/N-BUTANE 68476-86-8	-	-	-	-
PETROLEUM DISTILLATES 64742-47-8	-	45 mg/L LC50 Pimephales promelas 96h flow-through 2.2 mg/L LC50 Lepomis macrochirus 96h static 2.4 mg/L LC50 Oncorhynchus mykiss 96h static	-	-

Persistence and degradability

No information available.

Bioaccumulation

Chemical Name	log Pow
PROPANE/ISOBUTANE/N-BUTANE 68476-86-8	<=2.8

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS**Waste treatment****Waste Disposal Methods**

Dispose of in accordance with federal, state, and local regulations.

Contaminated packaging

Do not re-use empty containers.

14. TRANSPORT INFORMATION**DOT Ground**CONSUMER COMMODITY ORM-D
or
LIMITED QUANTITY**IATA**

UN1950, AEROSOLS, FLAMMABLE, 2.1,LTD.QTY.

IMDG

UN1950, AEROSOLS, 2.1,LTD.QTY.

15. REGULATORY INFORMATION**International Inventories**

Chemical Name	TSCA	DSL/NDSL	EINECS/ELI NCS	ENCS	IECSC	KECL	PICCS	AICS
PROPANE/ISOBUTANE/N-BUTANE	X	X	X	Not listed	X	X	X	X
PETROLEUM DISTILLATES	X	X	X	Not listed	X	X	X	X

Legend:**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory**DSL/NDL** - Canadian Domestic Substances List/Non-Domestic Substances List**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances**ENCS** - Japan Existing and New Chemical Substances**CHINA** - China Inventory of Existing Chemical Substances**KECL** - Korean Existing and Evaluated Chemical Substances**PICCS** - Philippines Inventory of Chemicals and Chemical Substances**AICS** - Australian Inventory of Chemical Substances**U.S. Federal Regulations****SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	Yes
Sudden Release of Pressure Hazard	Yes
Reactive Hazard	no

Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

U.S. State Regulations**California Proposition 65**

This product does not contain any known Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

EPA Pesticide Registration Number Not applicable

Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all the information required by the CPR.

WHMIS Hazard Class

B1 Flammable gas

B5 Flammable aerosol

D2B Toxic materials



16. OTHER INFORMATION

<u>NFPA</u>	Health Hazard 2	Flammability 4	Instability 0	Physical and chemical hazards -
<u>HMIS</u>	Health Hazard 2	Flammability 4	Physical Hazard 1	Personal protection B

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Revision Note

No information available

Disclaimer

The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of Safety Data Sheet