

## **Safety Data Sheet**

Date of Revise: 2020/3/19

### **Section 1. Identification of the substance/mixture and of the company/undertaking**

#### **1.1. Product identifier**

**Product Identity** PUFF DINO DRY FILM LUBRICANT  
**Alternate Names** DB198

#### **1.2. Relevant identified uses of the substance or mixture and uses advised against**

**Intended use** See Technical Data Sheet.

#### **1.3. Details of the supplier of the safety data sheet**

**Company Name** PUFFDINO TRADE CO., LTD.  
No.25, Gongyequ 23rd Rd, Nantun Dist, Taichung City 40850, Taiwan  
**Telephone** +886-4-23503555  
**Fax** +886-4-23501867

#### **1.4. Emergency telephone number**

**Emergency phone #** +886-4-23503555

### **Section 2. Hazard identification**

#### **2.1. Classification of the substance or mixture**

##### **Classification according to Regulation (EC) No 1272/2008**

Flammable aerosols 1	H222 Extremely flammable aerosol H229 Pressurized container: may burst if heated
Gases under pressure	H280 Contains gas under pressure; may explode if heated
Flammable liquids 2	H225 Highly flammable liquid and vapor
Skin corrosion/irritation 2	H315 Causes skin irritation
Reproductive toxicity 2	H361f Suspected of damaging fertility.
Specific target organ toxicity - single exposure 3	H336 May cause drowsiness or dizziness
STOT RE 2	H373 May cause damage to organs through prolonged or repeated exposure.
Hazardous to the aquatic environment, chronic toxicity 2	H411 Toxic to aquatic life with long lasting effects.

#### **2.2. Label elements**

##### **According to Regulation (EC) No 1272/2008**



## Danger

### Precautionary Statements - Prevention:

- P201 Obtain special instructions before use.
- P202 Do not handle until all safety precautions have been read and understood.
- P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
- P211 Do not spray on an open flame or other ignition source.
- P233 Keep container tightly closed.
- P251 Pressurized container: Do not pierce or burn, even after use.
- P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
- P264 Wash thoroughly after handling.
- P270 Do not eat, drink or smoke when using this product.
- P271 Use only outdoors or in a well-ventilated area.
- P273 Avoid release to the environment.
- P280 Wear protective gloves/eye protection/face protection.

### Precautionary Statements - Response:

- P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
- P304+312 IF INHALED: Call a POISON CENTER or doctor / physician if you feel unwell.
- P308+313 IF exposed or concerned: Get medical advice / attention.
- P313 Get medical advice/attention.
- P314 Get Medical advice / attention if you feel unwell.
- P321 Specific treatment (see information on this label).
- P332+313 If skin irritation occurs: Get medical advice/attention.
- P362 Take off contaminated clothing and wash before reuse.
- P391 Collect spillage.

### Precautionary Statements - Storage:

- P403+233 Store in a well-ventilated place. Keep container tightly closed.
- P405 Store locked up.
- P410+403 Protect from sunlight. Store in a well-ventilated place.
- P410+412 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.

### Precautionary Statements - Disposal:

- P501 Dispose of contents/container in accordance with local/national regulations.
- See Technical Data Sheet.

### 2.3. Other hazards

This product contains no PBT/vPvB chemicals.

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## Section 3. Composition/information on ingredients

### 3.2. Mixtures

If the product contains substances that present a hazard according to Regulation (EC) No. 1272/2008 [CLP/GHS] (as amended by (EU) 2015/830), they are listed below.

Ingredient/Chemical Designations	Weight %	EC No. 1272/2008 Classification*
Hexane <b>CAS Number:</b> 110-54-3	25 - 35	Flam. Liq. 2;H225 Repr. 2;H361f

<b>EC No.</b> 203-777-6 <b>Index No.:</b> 601-037-00-0		Asp. Tox. 1;H304 STOT RE 2;H373 Skin Irrit. 2;H315 STOT SE 3;H336 Aquatic Chronic 2;H411
Poly(tetrafluoroethene) <b>CAS Number:</b> 9002-84-0 <b>EC No.</b> -- <b>Index No.:</b> --	1 - 5	Not Classified
L.P.G. (liquified petroleum gas) <b>CAS Number:</b> 68476-85-7 <b>EC No.</b> 270-704-2 <b>Index No.:</b> --	40 - 45	Press. Gas;H280 Flam. Gas 1;H220
Dimethyl ether <b>CAS Number:</b> 115-10-6 <b>EC No.</b> 204-065-8 <b>Index No.:</b> 603-019-00-8	18 - 20	Flam. Gas 1;H220

\*The full texts of the phrases are shown in Section 16.

## Section 4. First aid measures

### 4.1. Description of first aid measures

<b>General</b>	In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.
<b>Inhalation</b>	Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give artificial respiration. If unconscious, place in the recovery position and obtain immediate medical attention. Give nothing by mouth.
<b>Eye contact</b>	Irrigate copiously with clean water for at least 15 minutes, holding the eyelids apart and seek medical attention.
<b>Skin contact</b>	Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin cleanser.
<b>Ingestion</b>	If swallowed obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.

### 4.2. Most important symptoms and effects, both acute and delayed

#### Overview

See section 2 for further details.

### 4.3. Indication of any immediate medical attention and special treatment needed

<b>Notes to physician</b>	Treat symptomatically.
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## Section 5. Fire-fighting measures

### 5.1. Extinguishing media

Recommended extinguishing media; alcohol resistant foam, CO<sub>2</sub>, powder, water spray.

### 5.2. Special hazards arising from the substance or mixture

Contains gas under pressure; may explode if heated

Hazardous decomposition: Carbon Dioxide, Carbon Monoxide

Keep away from heat/sparks/open flames/hot surfaces - No smoking.

Keep container tightly closed.

Use explosion-proof electrical/ventilating/light/equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Avoid breathing dust/fume/gas/mist/vapors/spray.

### **5.3. Advice for fire-fighters**

Cool closed containers exposed to fire by spraying them with water. Do not allow run off water and contaminants from firefighting to enter drains or water ways.

Put on appropriate personal protective equipment (see section 8).

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## **Section 6. Accidental release measures**

### **6.1. Personal precautions, protective equipment and emergency procedures**

Put on appropriate personal protective equipment (see section 8).

### **6.2. Environmental precautions**

Do not allow spills to enter drains or waterways.

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

### **6.3. Methods and material for containment and cleaning up**

Small Spill: Absorb spill with vermiculite or other inert material, then place in a container for chemical waste.

Large Spill: Flush spill area with water spray. Prevent runoff from entering drains, sewers, or streams. Dike for late disposal.

### **6.4 Reference to other sections**

See Section 1 for emergency contact information.

See Section 8 for information on appropriate personal protective equipment.

See Section 13 for additional waste treatment information.

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## **Section 7. Handling and storage**

### **7.1. Precautions for safe handling**

Store in cool, dry ventilated area. Avoid excessive heat. Always keep containers tightly closed when not in use.

Avoid contact with eyes. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

See section 2 for further details. - [Prevention]:

### **7.2. Conditions for safe storage, including any incompatibilities**

Incompatible materials: Strong acids and oxidizing agents

See section 2 for further details. - [Storage]:

### **7.3. Specific end use(s)**

No available information

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## **Section 8. Exposure controls/personal protection**

### **8.1. Control parameters**

## Exposure

CAS No.	Ingredient	Source	Value
110-54-3	Hexane	OSHA	TWA 500 ppm (1800 mg/m <sup>3</sup> )
		ACGIH	TWA: 20 ppm
		NIOSH	TWA 50 ppm (180 mg/m <sup>3</sup> )
9002-84-0	Poly(tetrafluoroethene)	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
68476-85-7	L.P.G. (liquefied petroleum gas)	OSHA	TWA 1000 ppm (1800 mg/m <sup>3</sup> )
		ACGIH	Ensure Minimal Oxygen Content (ACGIH appendix F)
		NIOSH	TWA 1000 ppm (1800 mg/m <sup>3</sup> )
115-10-6	Dimethyl ether	OSHA	No Established Limit
		ACGIH	TWA: 1000 ppm
		NIOSH	No Established Limit

### 8.2. Exposure controls

<b>Respiratory</b>	If workers are exposed to concentrations above the exposure limit they must use the appropriate, certified respirators.
<b>Eyes</b>	Protective safety glasses recommended
<b>Skin</b>	Avoid skin contact. Protective gloves recommended.
<b>Engineering Controls</b>	Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and any vapor below occupational exposure limits suitable respiratory protection must be worn.
<b>Other Work Practices</b>	Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

See section 2 for further details.

## Section 9. Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

<b>Appearance</b>	White Liquid
<b>Odor</b>	No available information
<b>Odor threshold</b>	No available information
<b>pH</b>	No available information
<b>Melting point / freezing point</b>	No available information
<b>Initial boiling point and boiling range</b>	No available information
<b>Flash Point</b>	-60°C (-76°F) Test method: Closed cup
<b>Evaporation rate (Ether = 1)</b>	No available information
<b>Flammability (solid, gas)</b>	Gas
<b>Upper/lower flammability or explosive limits</b>	<b>Lower Explosive Limit:</b> 1.8% <b>Upper Explosive Limit:</b> 8.4%
<b>Vapor pressure</b>	2.1 atm (21.1°C)
<b>Vapor Density (Air=1)</b>	No available information

<b>Relative density</b>	No available information
<b>Solubility in Water</b>	insoluble
<b>Partition coefficient n-octanol/water (Log Kow)</b>	No available information
<b>Auto-ignition temperature</b>	287°C
<b>Decomposition temperature</b>	No available information
<b>Viscosity</b>	No available information

9.2. Other information

No other relevant information.

Section 10. Stability and reactivity

10.1. Reactivity

Hazardous Polymerization will not occur.

10.2. Chemical stability

Stable under normal circumstances.

10.3. Possibility of hazardous reactions

No available information

10.4. Conditions to avoid

Do not expose to heat or store at temperature above 120°F.

10.5. Incompatible materials

Strong acids and oxidizing agents

10.6. Hazardous decomposition products

Oxides of Carbon

Section 11. Toxicological information

11.1. Information on toxicological effects

Product

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

Classification	Category	Hazard Description
Acute toxicity (oral)	--	Not Applicable
Acute toxicity (dermal)	--	Not Applicable
Acute toxicity (inhalation)	--	Not Applicable
Skin corrosion/irritation	2	Causes skin irritation.
Serious eye damage/irritation	--	Not Applicable
Respiratory sensitization	--	Not Applicable
Skin sensitization	--	Not Applicable
Germ cell mutagenicity	--	Not Applicable
Carcinogenicity	--	Not Applicable
Reproductive toxicity	2	Suspected of damaging fertility.
STOT-single exposure	3	May cause drowsiness or dizziness.
STOT-repeated exposure	2	May cause damage to organs through prolonged or repeated

		exposure.
Aspiration hazard	--	Not Applicable

## Components

### Acute toxicity

Component	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapor LC50, mg/L/4hr	Inhalation Dust/Mist LC50, mg/L/4hr	Inhalation Gas LC50, ppm
Hexane - (110-54-3)	25,000.00, Rat - Category: NA	3,000.00, Rabbit - Category: 5	No data available	No data available	48,000.00, Rat - Category: NA
Poly(tetrafluoroethene) - (9002-84-0)	No data available	No data available	No data available	No data available	No data available
L.P.G. (liquified petroleum gas) - (68476-85-7)	No data available	No data available	No data available	No data available	No data available
Dimethyl ether - (115-10-6)	No data available	No data available	308.00, Rat - Category: NA	No data available	No data available

### Carcinogen Data

CAS No.	Component	Source	Value
110-54-3	Hexane	OSHA	Regulated Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No
9002-84-0	Poly(tetrafluoroethene)	OSHA	Regulated Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No
68476-85-7	L.P.G. (liquified petroleum gas)	OSHA	Regulated Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No
115-10-6	Dimethyl ether	OSHA	Regulated Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No

## Section 12. Ecological information

### 12.1. Toxicity

No additional information provided for this product. See Section 3 for chemical specific data.

### Aquatic Ecotoxicity

Component	96 hr LC50 fish, mg/L	48 hr EC50 crustacea, mg/L	ErC50 algae, mg/L	3hr IC50 Bacteria, mg/L
L.P.G. (liquified petroleum gas) - (68476-85-7)	Not Available	Not Available	Not Available	Not Available

Hexane - (142-82-5)	12.51, Oncorhynchus mykiss	21.85, Daphnia magna	9.285 (72 hr), Pseudokirchneriella subcapitata	Not Available
Poly(tetrafluoroethylene) - (9002-84-0)	Not Available	Not Available	Not Available	Not Available
Dimethyl ether - (115-10-6)	1,783.04, Fish	755.549, Daphnia sp	154.917 (96 hr), Algae	Not Available

#### 12.2. Persistence and degradability

There is no data available on the preparation itself.

#### 12.3. Bioaccumulative potential

No available information

#### 12.4. Mobility in soil

No available information

#### 12.5. Results of PBT and vPvB assessment

This product contains no PBT/vPvB chemicals.

#### 12.6. Other adverse effects

No available information

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### Section 13. Disposal considerations

#### 13.1. Waste treatment methods

Observe all federal, state and local regulations when disposing of this substance.

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### Section 14. Transport information

	ADR/RID (Land transport)	IMDG (Sea Transportation)	ICAO-TI/IATA-DGR (Air transport)	ADN (Inland waterway transport)
<b>14.1. UN number</b>	1950	1950	1950	Not Applicable
<b>14.2. UN proper shipping name</b>	Aerosols, flammable (each not exceeding 1 L capacity)	Aerosols, flammable (each not exceeding 1 L capacity)	Aerosols, flammable (each not exceeding 1 L capacity)	Not Applicable
<b>14.3. Transport hazard class(es)</b>	2.1	Not Applicable <b>Sub Class:</b> Not Applicable	Not Applicable	Not Applicable
<b>14.4. Packing group</b>	Not Applicable	Not Applicable	Not Applicable	Not Applicable
<b>14.5. Environmental hazards</b>	Not Applicable	Marine Pollutant: No	Not Applicable	Not Applicable

#### 14.6. Special precautions for user

No further information

#### 14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not Applicable



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## Section 15. Regulatory information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### EU Legislation

REGULATION (EU) 2015/830 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

#### US federal regulations

The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented.

**Toxic Substance Control Act (TSCA):** All components of this material are either listed or exempt from listing on the TSCA Inventory.

**SARA 302:** No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA (311/312) REPORTABLE GHS HAZARD CLASSES:** Flammable (gases, aerosols, liquids, or solids), Gas under Pressure, Simple Asphyxiant

**SARA (313) TOXIC RELEASE INVENTORY:** This material contains no chemicals subject to the supplier notification requirements of the SARA 313 Toxic Release Program.

#### National Legislation

None noted.

#### Taiwan (R.O.C) Legislation

Occupational Safety and Health Act, Toxic Chemical Substance Control Act, Standards of Permissible Exposure Limits of Airborne Hazardous Substances in Workplace, Regulations for the Labeling and Hazard Communication of Hazardous Chemicals, Regulations Governing Designating and Handling of Priority Management Chemicals, Methods and Facilities Standards for the Storage, Clearance and Disposal of Industrial Waste, Public Hazardous Substances & Flammable Pressurized Gases Establishment Standards & Safety Control Regulations.

### 15.2. Chemical Safety Assessment

No Chemical Safety Assessment has been carried out.

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## Section 16. Other information

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

The full text of the phrases appearing in section 3 is:

H220 Extremely flammable gas.

H225 Highly flammable liquid and vapor.

H280 Contains gas under pressure; may explode if heated.

H304 May be fatal if swallowed and enters airways.

H315 Causes skin irritation.

H336 May cause drowsiness and dizziness.

H361f Suspected of damaging fertility.

H373 May cause damage to organs through prolonged or repeated exposure.

H411 Toxic to aquatic life with long lasting effects.

**This is the first version in the GHS SDS format. Listings of changes from previous versions in other formats are not applicable.**

The information contained herein is based on the present state of our knowledge. It characterizes the product with regard to the appropriate safety precautions. It does not represent a guarantee of the properties of the product.

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