(COMMISSION REGULATION (EU) No 2015/830)

Version 1 Product name C-300 Issue date 23-Dec-2018 Revision date 23-Dec-2018

#### **SECTION 1: Identification of the substance /mixture and of the company/undertaking**

# 1.1. Product identifier Product name C-300 REACH registration number No information available 1.2. Relevant identified uses of the substance or mixture and uses advised against Recommended use Recommended use Cleaner and Lubricant. Uses advised against No information available 1.3. Details of the supplier of the safety data sheet Supplier Address Antari Lighting And Effects LTD No. 8, Lane 231, Nankan road section 1, Luchu, Taoyuan county, Taiwan

+886-3-332-5829
bruce@antari.com.tw

#### 1.4. Emergency telephone number

#### 2.1. Classification of the substance or mixture Classification according to Regulation (EC) No. 1272/2008 [CLP] Gases under pressure Liquefied gas - (H280)

#### 2.2. Label elements

Symbols/Pictograms



Signal word Hazard statements Precautionary statements

H280 - Contains gas under pressure; may explode if heated P410 + P403 - Protect from sunlight. Store in a well-ventilated place

#### 2.3. Other hazards

No information available.

### **SECTION 3: Composition/information on ingredients**

3.1. Mixture

Chemical name	EC No	CAS No	Weight-%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
1,1,1,2-Tetrafluoroethane	212-377-0	811-97-2	91.8	Liq. Gas (H280)
White mineral oil	232-455-8	8042-47-5	8.2	Not classified

#### **SECTION 4: First aid measures**

#### 4.1. Description of first aid measures

#### **General advice**

Remove contaminated clothing and shoes. If symptoms persist, call a physician.

#### Inhalation

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.

#### Skin contact

Get medical attention if irritation develops and persists.

#### Eye contact

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.

#### Ingestion

If swallowed, call a poison control center or physician immediately.

- **4.2. Most important symptoms and effects, both acute and delayed** No information available.
- **4.3. Indication of any immediate medical attention and special treatment needed** Treat symptomatically.

#### SECTION 5: Firefighting measures

5.1. Extinguishing media Suitable extinguishing media

Carbon dioxide (CO2). Extinguishing powder. Water spray (fog). Alcohol resistant foam. No information available.

Unsuitable extinguishing media

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

Thermal decomposition can lead to release of irritating and toxic gases and vapors.

#### 5.3. Advice for firefighters

Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.

#### **SECTION 6: Accidental release measures**

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

Evacuate personnel to safe areas. Ensure adequate ventilation, especially in confined areas. Avoid contact with eyes and skin. Avoid breathing dust/fume/gas/mist/vapors/spray. Use personal protective equipment as required.

#### 6.2. Environmental precautions

Local authorities should be advised if significant spillages cannot be contained. Prevent entry into waterways, sewers, basements or confined areas.

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

Allow substance to evaporate. Ventilate affected area.

#### 6.4. Reference to other sections

See Section 7 for more information See section 8 for more information See section 13 for more information

#### **SECTION 7: Handling and storage**

#### 7.1. Precautions for safe handling

Handle in accordance with good industrial hygiene and safety practice. Ensure adequate ventilation, especially in confined areas. Do not breathe dust/fume/gas/mist/vapors/spray. Avoid contact with skin and eyes.

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

Keep container tightly closed in a dry and well-ventilated place. Store in accordance with local regulations.

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

Apart from the uses mentioned in SECTION 1.2 no other specific uses are stipulated.

#### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

Chemical name	Australia	Austria	Belgium	Denmark	European Union
1,1,1,2-Tetrafluoroethane (CAS #: 811-97-2)	1000 ppm 4240 mg/m <sup>3</sup>	STEL 4000 ppm STEL 16800 mg/m <sup>3</sup> TWA: 1000 ppm TWA: 4200 mg/m <sup>3</sup>	-	-	-

Chemical name	Latvia	France	Finland	Germany	Italy
1,1,1,2-Tetrafluoroethane (CAS #: 811-97-2)		-	-	STEL 8000 ppm STEL 33600 mg/m <sup>3</sup> TWA: 1000 ppm TWA: 4200 mg/m <sup>3</sup>	-
White mineral oil (CAS #: 8042-47-5)		-	-	TWA: 5 mg/m <sup>3</sup> Ceiling / Peak: 20 mg/m <sup>3</sup>	-

Chemical name	Poland	Portugal	Spain	Switzerland	Netherlands
1,1,1,2-Tetrafluoroethane	-	-	-	TWA: 1000 ppm	-
(CAS #: 811-97-2)				TWA: 4200 mg/m <sup>3</sup>	

Chemical name	Norway	United Kingdom	ACGIH TLV	OSHA PEL	NIOSH IDLH
1,1,1,2-Tetrafluoroethane	-	TWA: 1000 ppm	-	-	-
(CAS #: 811-97-2)		TWA: 4200 mg/m <sup>3</sup>			

#### Derived No Effect Level (DNEL)

No information available

#### Predicted No Effect Concentration (PNEC)

No information available

#### 8.2. Exposure controls

#### Engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands thoroughly after handling.

#### Personal protective equipment

Eye/face protection	Wear safety glasses with side shields (or goggles).
Hand protection	Wear protective gloves.
Skin and body protection	Suitable protective clothing.
Respiratory protection	In case of insufficient ventilation, wear suitable respiratory equipment.

#### **Environmental exposure controls**

Avoid release to the environment.

# **SECTION 9: Physical and chemical properties**

9.1. Information on basic physical and chemical properties				
Appearance	Liquefied gas			
Color	Colorless			
Odor	Slightly ethereal			
Odor threshold	Not determined			
рН	Not determined			
Melting point/freezing point	Not determined			
Boiling point / boiling range	Not determined			
Flash point	Not determined			
Evaporation rate	Not determined			
Flammability (solid, gas)	Not determined			
Explosive limits	Not determined			
Flammability limit in air	Not determined			
Vapor pressure	Not determined			
Vapor density	Not determined			
Density	Not determined			
Relative density	Not determined			
Partition coefficient (LogPow)	Not determined			
Autoignition temperature	Not determined			
Decomposition temperature	Not determined			
Kinematic viscosity	Not determined			
Dynamic viscosity	Not determined			
Explosive properties	Not determined			
Oxidizing properties	Not determined			

**9.2. Other information** No information available

# **SECTION 10: Stability and reactivity**

#### 10.1. Reactivity

No information available.

#### 10.2. Chemical stability

Stable under normal conditions.

**10.3. Possibility of hazardous reactions** None under normal processing.

# 10.4. Conditions to avoid

Heat, flames and sparks.

#### **10.5. Incompatible materials** Strong oxidizing agents. Alkali metals.

10.6. Hazardous decomposition products

# None under normal use conditions.

# **SECTION 11: Toxicological information**

11.1. Information on toxicological effects Acute toxicity

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
1,1,1,2-Tetrafluoroethane (CAS #: 811-97-2)	-	-	1500000 mg/m <sup>3</sup> /4h (Rat)
White mineral oil (CAS #: 8042-47-5)	> 5000 mg/kg (Rat)	-	-

#### Skin corrosion/irritation

Non-irritating to the skin.

#### Serious eye damage/eye irritation

No eye irritation.

#### Sensitization

No sensitization responses were observed.

#### Germ cell mutagenicity

No information available.

#### Carcinogenicity

No information available

#### Reproductive toxicity

No information available.

#### STOT - single exposure

No information available.

#### STOT - repeated exposure

No information available.

#### Aspiration hazard

No information available.

#### **SECTION 12: Ecological information**

#### 12.1. Toxicity

Chemical name	Algae/Aquatic plants EC50	Fish LC50	Crustacea EC50
1,1,1,2-Tetrafluoroethane (CAS	142 mg/L/96h (green	450 mg/L/96h (Oncorhynchus	980 mg/L/48h (Daphnia magna)
#: 811-97-2)	algae)(weight of evidence)	mykiss)	
White mineral oil (CAS #:	-	10000: 96 h Lepomis	-
8042-47-5)		macrochirus mg/L LC50	

#### 12.2. Persistence and degradability

No information available.

#### 12.3. Bioaccumulative potential

Chemical name	Partition coefficient (LogPow)
White mineral oil (CAS #: 8042-47-5)	6

#### 12.4. Mobility in soil

No information available.

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

PBT/vPvB assessment information is not available as chemical safety assessment not conducted.

#### 12.6. Other adverse effects

No information available.

#### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

Waste from residues/unused Di products ar Contaminated packaging Im

Disposal should be in accordance with applicable regional, national and local laws and regulations. Improper disposal or reuse of this container may be dangerous and illegal.

**SECTION 14: Transport information** 

14.1. UN number	3159
14.2. UN proper shipping name	1,1,1,2-TETRAFLUOROETHANE(REFRIGERANT GAS R 134a)
14.3. Transport hazard class(es)	2.2
14.4. Packing group	None
14.5. Environmental hazards	Not marine pollutant
14.6. Special precautions for user	No information available
14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code	Does not apply

## SECTION 15: Regulatory information

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

Component	EINECS/ELINCS	SVHC candidates	RESTRICTIONS - REACH TITLE VIII
1,1,1,2-Tetrafluoroethane 811-97-2 ( 91.8 )	X	-	-
White mineral oil 8042-47-5 ( 8.2 )	X	-	-

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Take note of Directive 94/33/EC on the protection of young people at work

Take note of Directive 92/85/EC on the protection of pregnant and breastfeeding women at work

#### International inventories

Component	TSCA	DSL/NDSL	ENCS	IECSC	KECL	PICCS	AICS
1,1,1,2-Tetrafluoroeth	Х	Х	Х	Х	Х	Х	Х
ane							
811-97-2 ( 91.8 )							
White mineral oil	Х	Х	Х	Х	Х	Х	Х
8042-47-5 (8.2)							

"-" Not Listed

"X" Listed

#### 15.2. Chemical safety assessment

No information available.

#### SECTION 16: Other information

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

Issue date

23-Dec-2018

Revision date	23-Dec-2018
Revision note	Not applicable

#### Key or legend to abbreviations and acronyms used in the safety data sheet

TWA - TWA (Time Weighted Average)
STEL - STEL (Short Term Exposure Limit)
Ceiling - Maximum limit value
TSCA - Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European INventory of Existing Commercial chemical Substances/European LIst of Notified Chemical Substances
ENCS - Japanese Existing and New Chemical Substances
IECSC - Chinese Inventory of Existing Chemical Substances
KECL - Korea Existing Chemicals List
PICCS - The Philippine Inventory of Chemicals and Chemical Substances
AICS - The Australian Inventory of Chemical Substances

#### Key literature references and sources for data

ECHA: http://echa.europa.eu/ IFA GESTIS: http://gestis-en.itrust.de/nxt/gateway.dll?f=templates\$fn=default.htm\$vid=gestiseng:sdbeng HSDB: http://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm

#### Full text of H-Statements referred to under section 3

H280 - Contains gas under pressure; may explode if heated

#### Disclaimer

The information provided in this Safety Data Sheet 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 guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered 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 materials or in any process, unless specified in the text.

----- End of Safety Data Sheet ------