



Safety Data Sheet dated 14/9/2020, version 1

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

### 1.1. Product identifier

Trade name: **PHOBI F&F+**

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

Recommended use:

Insecticide - Biocidal use

Professional use

Uses advised against:

Do not use for purposes other than those stated in "Recommended uses"

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

Company:

LODI UK

Pensnett Trading Estate 3rd Avenue

West Midlands

DY6 7FD KINGSWINFORD United Kingdom

Tel. 00 44 1384 404242

Competent person responsible for the safety data sheet:

[fds@lodi.fr](mailto:fds@lodi.fr)

### 1.4. Emergency telephone number

European Emergency phone number : 112

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

EC regulation criteria 1272/2008 (CLP)

 **Danger, Aerosols 1, Extremely flammable aerosol. Pressurized container: may burst if heated.**

 **Warning, Aquatic Acute 1, Very toxic to aquatic life.**

 **Warning, Aquatic Chronic 1, Very toxic to aquatic life with long lasting effects.**

Adverse physicochemical, human health and environmental effects:

No other hazards

### 2.2. Label elements

Hazard pictograms:



Danger

**Hazard statements:**

H222+H229 Extremely flammable aerosol. Pressurized container: may burst if heated.  
H410 Very toxic to aquatic life with long lasting effects.

**Precautionary statements:**

P103 Read label before use.  
P211 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P211 Do not spray on an open flame or other ignition source.  
P251 Do not pierce or burn, even after use.  
P273 Avoid release to the environment.  
P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.  
P501 Dispose of contents/container in accordance with applicable regulations.

**Special Provisions:**

None

Special provisions according to Annex XVII of REACH and subsequent amendments:

None

**2.3. Other hazards**

vPvB Substances: None - PBT Substances: None

Other Hazards:

No other hazards

SECTION 2: Hazards identification












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**SECTION 3: Composition/information on ingredients**
**3.1. Substances**

Not available

**3.2. Mixtures**

Hazardous components within the meaning of the CLP regulation and related classification:

Qty	Name	Ident. Number	Classification
>= 40% - < 50%	Butane	Index number: 601-004-00-0 CAS: 106-97-8 EC: 203-448-7	 2.2/1 Flam. Gas 1 H220  2.5 Press. Gas H280
>= 25% - < 30%	propane	Index number: 601-003-00-5 CAS: 74-98-6 EC: 200-827-9	 2.2/1 Flam. Gas 1 H220  2.5 Press. Gas H280
>= 5% - < 7%	HYDROCARBONS C9-C10 N-ALKANESISOALKANES, CYCLICS, <2% AROMATIC	EC: 927-241-2	 2.6/3 Flam. Liq. 3 H226  3.10/1 Asp. Tox. 1 H304 4.1/C3 Aquatic Chronic 3 H412 EUH066
>= 5% - < 7%	propan-2-ol; isopropyl alcohol; isopropanol	Index number: 603-117-00-0 CAS: 67-63-0 EC: 200-661-7	 2.6/2 Flam. Liq. 2 H225  3.3/2 Eye Irrit. 2 H319  3.8/3 STOT SE 3 H336
0.33%	Cyphenothrin	CAS: 39515-40-7 EC: 254-484-5	 3.1/4/Oral Acute Tox. 4 H302  4.1/A1 Aquatic Acute 1 H400 M=1000.

			 4.1/C1 Aquatic Chronic 1 H410 M=1000.
0.11%	reaction mass of: [2,4-dioxo-(2-propyn-1-yl)imidazolidin-3-yl]methyl(1R)-cis-chrysanthe mate; [2,4-dioxo-(2-propyn-1-yl)imidazolidin-3-yl]methyl(1R)-trans-chrysanthe mate	Index: 613-259-00-5 CAS: 72963-72-5 EC: 428-790-6	 4.1/A1 Aquatic Acute 1 H400  4.1/C1 Aquatic Chronic 1 H410  3.1/4/Oral Acute Tox. 4 H302
0.01%	Chrysanthemum cinerariaefolium, extract from open and mature flowers of Tanacetum cinerariifolium obtained with supercritical CO2 (Redefined from Pyrethrins and Pyrethroids and Chrysanthemum cinerariaefolium, ext.)	CAS: 89997-63-7 EC: 289-699-3	 3.1/4/Inhal Acute Tox. 4 H332  3.1/4/Oral Acute Tox. 4 H302  4.1/A1 Aquatic Acute 1 H400 M=100.  4.1/C1 Aquatic Chronic 1 H410 M=100.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

In case of skin contact:

Wash with plenty of water and soap.

Remove contaminated clothing, wash skin with soap and rinse thoroughly with water.

Do not use solvents or thinners.

Seek medical attention if ill effect or irritation develops

In case of eyes contact:

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Rinse the eye slowly and gently with water for 15-20 minutes

Seek medical attention if ill effect or irritation develops

In case of Ingestion:

Do not under any circumstances induce vomiting. OBTAIN A MEDICAL EXAMINATION IMMEDIATELY.

Rinse mouth

Do not induce vomiting.

Immediately consult a physician and show the label.

Allow the victim to rest.

In case of Inhalation:

Remove casualty to fresh air and keep warm and at rest.

Assure fresh air breathing

Allow the victim to rest.

Seek medical attention if breathing difficulties appear and persist.

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

None

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

Treat symptomatically.

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**SECTION 5: Firefighting measures**

**5.1. Extinguishing media**

Suitable extinguishing media:

CO2 or Dry chemical fire extinguisher.

Extinguishing media which must not be used for safety reasons:

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

Do not inhale explosion and combustion gases.

Burning produces heavy smoke.

**5.3. Advice for firefighters**

Use suitable breathing apparatus .

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Move undamaged containers from immediate hazard area if it can be done safely.

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**SECTION 6: Accidental release measures**

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

Wear personal protection equipment.

Remove all sources of ignition.

Remove persons to safety.

See protective measures under point 7 and 8.

**6.2. Environmental precautions**

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

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

Rapidly recover the product. To do so, wear a mask and protective clothing.

For cleaning up:

Clear spills immediately

**6.4. Reference to other sections**

See also section 8 and 13

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**SECTION 7: Handling and storage**

**7.1. Precautions for safe handling**

Advice on general occupational hygiene:

Wash hands after use

Do not eat, drink or smoke when using this product.

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

Do not expose to temperature exceeding 50 ° C

Avoid the accumulation of electrostatic charges

Store in a dry, well ventilated place

It is recommended to denormalize aerosols in the stock. The "spray" area should be delimited either with a metal mesh (mesh of 5cm maximum), forming a cage or using walls, to avoid projections of aerosols which may ignite the rest of the stock.

Do not smoke

To reduce the risk of falls, pallets should be positioned as close to the floor. ensure that those lower layers are not crushed (risk of leaks by compression).

Store away from: open flame, direct sunlight, sparks, heat.

Keep away from sources of ignition, heat and direct sunlight

Keep away from unguarded flame and heat sources. Avoid direct exposure to sunlight.

Keep away from unguarded flame, sparks, and heat sources. Avoid direct exposure to sunlight.

Keep away from food, drink and feed.

Incompatible materials:

None in particular.

Instructions as regards storage premises:

Cool and adequately ventilated.

### 7.3. Specific end use(s)

None in particular

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## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

butane - CAS: 106-97-8

ACGIH - STEL: 1000 ppm - Notes: (EX) - CNS impair

propane - CAS: 74-98-6

ACGIH - Notes: (D, EX) – Asphyxia

propan-2-ol; isopropyl alcohol; isopropanol - CAS: 67-63-0

ACGIH - TWA(8h): 200 ppm - STEL: 400 ppm - Notes: A4, BEI - Eye and URT irr, CNS impair

Chrysanthemum cinerariaefolium, extract - CAS: 89997-63-7

EU - TWA(8h): 1 mg/m<sup>3</sup> - Notes: DIRECTIVE 2006/15/CE DE LA COMMISSION (Pyrethre CAS : 8003-34-7)

DNEL Exposure Limit Values

propan-2-ol; isopropyl alcohol; isopropanol - CAS: 67-63-0

Worker Professional: 500 mg/m<sup>3</sup> - Exposure: Human Inhalation - Frequency: Long Term, systemic effects

Worker Professional: 888 mg/kg/24h - Exposure: Human Dermal - Frequency: Long Term, systemic effects

PNEC Exposure Limit Values

propan-2-ol; isopropyl alcohol; isopropanol - CAS: 67-63-0

Target: Fresh Water - Value: 140.9 mg/l

Target: Freshwater sediments - Value: 552 mg/kg

Target: Soil - Value: 28 mg/kg

Target: Microorganisms in sewage treatments - Value: 2251 mg/l

### 8.2. Exposure controls

Eye protection:

Not needed for normal use. Anyway, operate according good working practices.

Protection for skin:

No special precaution must be adopted for normal use.

Protection for hands:

Wearing gloves is recommended.

Butyl caoutchouc (butyl rubber).

Neoprene gloves.  
 Respiratory protection:  
 Wear appropriate respiratory apparatus  
 Thermal Hazards:  
 None  
 Environmental exposure controls:  
 None  
 Appropriate engineering controls:  
 None

**SECTION 9: Physical and chemical properties**

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

Properties	Value	Method:	Notes:
Appearance and colour:	Colorless to pale yellow liquid	--	--
Odour:	Characteristic	--	--
Odour threshold:	Not available	--	--
pH:	Not available	--	--
Melting point / freezing point:	Not available	--	--
Initial boiling point and boiling range:	Not available	--	--
Flash point:	<0 ° C	--	--
Evaporation rate:	Not available	--	--
Solid/gas flammability:	Not available	--	--
Upper/lower flammability or explosive limits:	Not available	--	--
Vapour pressure:	Not available	--	--
Vapour density:	Not available	--	--
Relative density:	Not available	--	--
Solubility in water:	Not available	--	--
Solubility in oil:	Not available	--	--
Partition coefficient (n-octanol/water):	Not available	--	--
Auto-ignition temperature:	Not available	--	--
Decomposition temperature:	Not available	--	--
Viscosity:	Not available	--	--
Explosive properties:	Not available	--	--
Oxidizing properties:	Not available	--	--

**9.2. Other information**

Properties	Value	Method:	Notes:
Miscibility:	Not available	--	--
Fat Solubility:	Not available	--	--
Conductivity:	Not available	--	--
Substance Groups relevant properties	Not available	--	--

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## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Pressurized container: may burst if heated. Extremely flammable aerosol.

### 10.2. Chemical stability

The product is stable under normal handling and storage conditions. May ignite or explode if heated. Extremely flammable aerosol

### 10.3. Possibility of hazardous reactions

None

### 10.4. Conditions to avoid

Heat. Open flame. Direct rays of the sun. Sparks. Avoid contact with hot surfaces. Remove all sources of ignition.

### 10.5. Incompatible materials

Avoid contact with combustible materials. The product could catch fire.

### 10.6. Hazardous decomposition products

None.

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## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Toxicological information of the product:

Not available

Toxicological information of the main substances found in the product:

butane - CAS: 106-97-8

a) acute toxicity:

Test: LC50 - Route: Inhalation - Species: Rat : = 658 mg/L - Duration: 4h

propan-2-ol; isopropyl alcohol; isopropanol - CAS: 67-63-0

a) acute toxicity:

Test: LD50 - Route: oral - Species: Rat : = 5840 mg/Kg

Test: LD50 - Route: dermal - Species: Rabbit : > 2000 mg/Kg

Test: LC50 - Route: Inhalation - Species: Rat : = 72.6 mg/L - Duration: 4h

Cyphenothrin - CAS: 39515-40-7

a) acute toxicity:

Test: LD50 - Route: oral - Species: Rat : = 318 mg/Kg - Source: males

Test: LD50 - Route: oral - Species: Rat : = 319 mg/Kg - Source: females

Test: LC50 - Route: Inhalation - Species: Rat : > 1.85 mg/L

Chrysanthemum cinerariaefolium, extract - CAS: 89997-63-7

a) acute toxicity:

Test: LD50 - Route: oral - Species: Rat : = 1030 mg/kg b.w/d - Notes: Nominal 57% Chrysanthemum cinerariaefolium, ext

Test: LD50 - Route: dermal - Species: Rabbit : > 2000 mg/kg b.w - Notes: nominal 57% Chrysanthemum cinerariaefolium, ext.

Test: LC50 - Route: Inhalation - Species: Rat : > 2.3 mg/L - Duration: 4h - Notes: nominal 57% Chrysanthemum cinerariaefolium, ext.

d) respiratory or skin sensitisation:

Test: Skin Sensitization - Route: dermal Non skin sensitizer - Notes: nominal 57% Chrysanthemum cinerariaefolium, ext.

f) carcinogenicity:

Test: NOAEL = 4.4 mg/kg b.w/d - Notes: nominal 57% Chrysanthemum cinerariaefolium, ext.

g) reproductive toxicity:

Test: NOAEL = 360 mg/kg b.w/d - Notes: nominal 57% Chrysanthemum cinerariaefolium, ext.

If not differently specified, the information required in Regulation (EU)2015/830 listed below must be considered as N.A.:

- a) acute toxicity;
- b) skin corrosion/irritation;
- c) serious eye damage/irritation;
- d) respiratory or skin sensitisation;
- e) germ cell mutagenicity;
- f) carcinogenicity;
- g) reproductive toxicity;
- h) STOT-single exposure;
- i) STOT-repeated exposure;
- j) aspiration hazard.

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## SECTION 12: Ecological information

### 12.1. Toxicity

Adopt good working practices, so that the product is not released into the environment.  
butane - CAS: 106-97-8

a) Aquatic acute toxicity:

Endpoint: LC50 Fish = 24.11 mg/L

Endpoint: EC50 Daphnia = 14.22 mg/L

propan-2-ol; isopropyl alcohol; isopropanol - CAS: 67-63-0

a) Aquatic acute toxicity:

Endpoint: LC50 Fish > 100 mg/L - Duration h: 96

Endpoint: EC50 Daphnia magna > 100 mg/L - Duration h: 48

Cyphenothrin - CAS: 39515-40-7

a) Aquatic acute toxicity:

Endpoint: LC50 Fish = 0.00034 mg/L - Duration h: 96

Endpoint: LC50 Daphnia = 0.00043 mg/L - Duration h: 48

Chrysanthemum cinerariaefolium, extract - CAS: 89997-63-7

a) Aquatic acute toxicity:

Endpoint: LC50 Rainbow Trout = 5.2 µg/L - Duration h: 96

Endpoint: EC50 Daphnia magna = 12 µg/L - Duration h: 48 - Notes: LOEC value of 2.0 µg.l-1 were determined (21 d study)

b) Aquatic chronic toxicity:

Endpoint: NOEC Fathead minnow = 1.9 µg/L - Notes: LOEC value of 3.0 µg.l-1 (35d study)

Endpoint: NOEC Daphnia magna = 0.86 µg/L - Notes: LOEC value of 2.0 µg.l-1 were determined

c) Bacteria toxicity:

Endpoint: NOEC Activated sludge = 0.23 µg/L - Duration h: 3

### 12.2. Persistence and degradability



propan-2-ol; isopropyl alcohol; isopropanol - CAS: 67-63-0

Biodegradability: Readily biodegradable

Chrysanthemum cinerariaefolium, extract - CAS: 89997-63-7

Biodegradability: Readily biodegradable - Notes: in presence of UV light

**12.3. Bioaccumulative potential**

Not available

**12.4. Mobility in soil**

Not available

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

vPvB Substances: None - PBT Substances: None

**12.6. Other adverse effects**

None

**SECTION 13: Disposal considerations**

**13.1. Waste treatment methods**

Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions. In so doing, comply with the local and national regulations currently in force.

Additional disposal information:

Dispose of contents/container in accordance with applicable regulations.

**SECTION 14: Transport information**

**14.1. UN number**

Not classified as dangerous in the meaning of transport regulations.

ADR-UN number: UN1950

IATA-Un number: UN1950

IMDG-Un number: UN1950

**14.2. UN proper shipping name**

ADR-Shipping Name: AEROSOLS

IATA-Technical name: AEROSOLS, FLAMMABLE

**14.3. Transport hazard class(es)**

ADR-Class: 2.1

IATA-Class: 2.1

IMDG-Class: 2.1

**14.4. Packing group**

Not available

**14.5. Environmental hazards**

Marine pollutant: Marine pollutant

**14.6. Special precautions for user**

ADR-Transport category (Tunnel restriction code): D

**14.7. Transport in bulk according to Annex II of Marpol and the IBC Code**

Not available

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## SECTION 15: Regulatory information

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

Dir. 98/24/EC (Risks related to chemical agents at work)  
Dir. 2000/39/EC (Occupational exposure limit values)  
Regulation (EC) n. 1907/2006 (REACH)  
Regulation (EC) n. 1272/2008 (CLP)  
Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013  
Regulation (EU) 2015/830  
Regulation (EU) n. 286/2011 (ATP 2 CLP)  
Regulation (EU) n. 618/2012 (ATP 3 CLP)  
Regulation (EU) n. 487/2013 (ATP 4 CLP)  
Regulation (EU) n. 944/2013 (ATP 5 CLP)  
Regulation (EU) n. 605/2014 (ATP 6 CLP)  
Regulation (EU) n. 2015/1221 (ATP 7 CLP)  
Regulation (EU) n. 2016/918 (ATP 8 CLP)  
Regulation (EU) n. 2016/1179 (ATP 9 CLP)  
Regulation (EU) n. 2017/776 (ATP 10 CLP)  
Regulation (EU) n. 2018/699 (ATP 11 CLP)

Restrictions related to the product or the substances contained according to Annex XVII

Regulation (EC) 1907/2006 (REACH) and subsequent modifications:

Restrictions related to the product:

Restriction 3

Restriction 40

Restrictions related to the substances contained:

No restriction.

Where applicable, refer to the following regulatory provisions :

Directive 2012/18/EU (Seveso III)

Regulation (EC) nr 648/2004 (detergents).

Dir. 2004/42/EC (VOC directive)

Provisions related to directive EU 2012/18 (Seveso III):

Seveso III category according to Annex 1, part 1

Product belongs to category: P3a, E1

### 15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out for the mixture.

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## SECTION 16: Other information

Full text of phrases referred to in Section 3:

H220 Extremely flammable gas.

H280 Contains gas under pressure; may explode if heated.

H226 Flammable liquid and vapour.

H304 May be fatal if swallowed and enters airways.

H412 Harmful to aquatic life with long lasting effects.

EUH066 Repeated exposure may cause skin dryness or cracking.

H225 Highly flammable liquid and vapour.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

H302 Harmful if swallowed.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

H332 Harmful if inhaled.

Hazard class and hazard category	Code	Description
Flam. Gas 1	2.2/1	Flammable gas, Category 1
Aerosols 1	2.3/1	Aerosol, Category 1
Press. Gas	2.5	Gases under pressure
Flam. Liq. 2	2.6/2	Flammable liquid, Category 2
Flam. Liq. 3	2.6/3	Flammable liquid, Category 3
Acute Tox. 4	3.1/4/Inhal	Acute toxicity (inhalation), Category 4
Acute Tox. 4	3.1/4/Oral	Acute toxicity (oral), Category 4
Asp. Tox. 1	3.10/1	Aspiration hazard, Category 1
Eye Irrit. 2	3.3/2	Eye irritation, Category 2
STOT SE 3	3.8/3	Specific target organ toxicity - single exposure, Category 3
Aquatic Acute 1	4.1/A1	Acute aquatic hazard, category 1
Aquatic Chronic 1	4.1/C1	Chronic (long term) aquatic hazard, category 1
Aquatic Chronic 3	4.1/C3	Chronic (long term) aquatic hazard, category 3

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Classification according to Regulation (EC) Nr. 1272/2008	Classification procedure
Aerosols 1, H222+H229	On basis of test data
Aquatic Acute 1, H400	Calculation method
Aquatic Chronic 1, H410	Calculation method

This document was prepared by a competent person who has received appropriate training.

Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre, Commission of the European Communities

SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van Nostrand Reinold

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This MSDS cancels and replaces any preceding release.

- ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
- ATE: Acute Toxicity Estimate
- ATEmix: Acute toxicity Estimate (Mixtures)
- CAS: Chemical Abstracts Service (division of the American Chemical Society).
- CLP: Classification, Labeling, Packaging.
- CSR: Chemical safety report
- DNEL: Derived No Effect Level.
- EC50:
- EINECS: European Inventory of Existing Commercial Chemical Substances.
- GefStoffVO: Ordinance on Hazardous Substances, Germany.
- GHS: Globally Harmonized System of Classification and Labeling of

	Chemicals.
IATA:	International Air Transport Association.
IATA-DGR:	Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
ICAO:	International Civil Aviation Organization.
ICAO-TI:	Technical Instructions by the "International Civil Aviation Organization" (ICAO).
IMDG:	International Maritime Code for Dangerous Goods.
INCI:	International Nomenclature of Cosmetic Ingredients.
KSt:	Explosion coefficient.
LC50:	Lethal concentration, for 50 percent of test population.
LD50:	Lethal dose, for 50 percent of test population.
N.A.:	Not available
PNEC:	Predicted No Effect Concentration.
RID:	Regulation Concerning the International Transport of Dangerous Goods by Rail.
STEL:	Short Term Exposure limit.
STOT:	Specific Target Organ Toxicity.
TLV:	Threshold Limiting Value.
TWA:	Time-weighted average
UN:	United Nations
WGK:	German Water Hazard Class.