



**ZOBELE  
GROUP**

## Safety Data Sheet

### IC-REFL-MAT-BULK-THERMACELL BIG MAT



N

Safety Data Sheet dated 24/1/2011, version 1

#### 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

##### 1.1 Product Identifier

Mixture identification:

Trade name: IC-REFL-MAT-BULK-THERMACELL BIG MAT

Trade code: ZSDS10155

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

Recommended use:

Solid insecticide

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

Company:

ZOBELE HOLDING S.p.A

Via Fersina 4

38123 - Trento (Italy)

ZOBELE HOLDING S.p.A - Phone n.0461/303700 (Working hours)

Competent person responsible for the safety data sheet:

info@zobe.com

##### 1.4 Emergency telephone number

ZOBELE HOLDING S.p.A - Phone n.0461/303700 (Working hours)

#### 2. HAZARDS IDENTIFICATION

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

Directive criteria, 67/548/CE, 99/45/EC and following amendments thereof:

Properties / Symbols:

N Dangerous for the environment

R Phrases:

R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

EC regulation criteria 1272/2008 (CLP):

None

Adverse physicochemical, human health and environmental effects:

No other hazards

##### 2.2 Label elements



N

Symbols:

N Dangerous for the environment

## Safety Data Sheet

### IC-REFL-MAT-BULK-THERMACELL BIG MAT

R Phrases:

R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S Phrases:

S2 Keep out of the reach of children.

S29 Do not empty into drains.

S61 Avoid release to the environment. Refer to special instructions/Safety data sheets.

Symbols:

None

Hazard Statements:

None

Precautionary Statements:

None

Special Provisions:

None

2.3 Other hazards

Other Hazards:

No other hazards

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### 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

N.A.

3.2 Mixtures

Hazardous components within the meaning of EEC directive 67/548 and CLP regulation and corresponding classification:

22 % d-Allethrin;(Pynamin forte); (RS)-3-allyl-2-methyl-4-oxocyclopent-2-enyl (1R)-cis,trans-2,2-dimethyl-3-(2-methylprop-1-enyl)cyclopropanecarboxylate

CAS: 231937-89-6 EC: 209-542-4

Xn,N; R20/22-50/53

8.4 % Distillates (petroleum), hydrotreated light

N.67/548/CEE: 649-422-00-2 CAS: 64742-47-8 EC: 265-149-8

Xn; R65-66

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### 4. FIRST AID MEASURES

4.1 Description of first aid measures

In case of skin contact:

Wash with plenty of water and soap.

In case of eyes contact:

In case of Ingestion:

## Safety Data Sheet

### IC-REFL-MAT-BULK-THERMACELL BIG MAT

In case of Inhalation:

4.2 Most important symptoms and effects, both acute and delayed  
None

4.3 Indication of any immediate medical attention and special treatment needed  
Treatment:  
None

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#### 5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media:  
Water.

Carbon dioxide (CO<sub>2</sub>).

Extinguishing media which must not be used for safety reasons:  
None in particular.

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 fire-fighters

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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#### 6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment.

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.

Retain contaminated washing water and dispose it.

In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

Suitable material for taking up: absorbing material, organic, sand

6.3 Methods and material for containment and cleaning up

Wash with plenty of water.

6.4 Reference to other sections

See also section 8 and 13

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#### 7. HANDLING AND STORAGE

7.1 Precautions for safe handling:

Avoid contact with skin and eyes, inhalation of vapours and mists.

Don't use empty container before they have been cleaned.

Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.

Contaminated clothing should be changed before entering eating areas.

Do not eat or drink while working.

See also section 8 for recommended protective equipment.

7.2 Conditions for safe storage, including any incompatibilities

## Safety Data Sheet

### IC-REFL-MAT-BULK-THERMACELL BIG MAT

Keep away from food, drink and feed.

Incompatible materials:

None in particular.

Instructions as regards storage premises:

Adequately ventilated premises.

#### 7.3 Specific end use(s)

None in particular

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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters

d-Allethrin;(Pynamin forte); (RS)-3-allyl-2-methyl-4-oxocyclopent-2-enyl

(1R)-cis,trans-2,2-dimethyl-3-(2-methylprop-1-enyl)cyclopropanecarboxylate - Index: NA,

CAS: 231937-89-6, EC No: 209-542-4

TLV TWA - TLV STEL- VLE 8h- VLE short: None.

Distillates (petroleum), hydrotreated light - Index: 649-422-00-2, CAS: 64742-47-8, EC No: 265-149-8

TLV TWA - TLV STEL- VLE 8h- VLE short: None.

### 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:

Not needed for normal use.

Respiratory protection:

Not needed for normal use.

Thermal Hazards:

None

Environmental exposure controls:

None

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

Appearance and colour: Blue cardboard insecticide mat weighing about 2203mg

Odour: Characteristic

Odour threshold: N.A.

pH: N.A.

Melting point / freezing point: N.A.

Initial boiling point and boiling range: N.A.

Solid/gas flammability: N.A.

Upper/lower flammability or explosive limits: N.A.

Vapour density: N.A.

Flash point: N.A.

Evaporation rate: N.A.

Vapour pressure: N.A.

Relative density: N.A.

Solubility in water: Partially miscible

Lipid solubility: Partially miscible

Partition coefficient (n-octanol/water): N.A.

## Safety Data Sheet

### IC-REFL-MAT-BULK-THERMACELL BIG MAT

Auto-ignition temperature:	N.A.
Decomposition temperature:	N.A.
Viscosity:	N.A.
Explosive properties:	N.A.
Oxidizing properties:	N.A.
9.2 Other information	
Miscibility:	N.A.
Fat Solubility:	N.A.
Conductivity:	N.A.
Substance Groups relevant properties	N.A.

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#### 10. STABILITY AND REACTIVITY

- 10.1 Reactivity
  - Stable under normal conditions
- 10.2 Chemical stability
  - Stable under normal conditions
- 10.3 Possibility of hazardous reactions
  - None
- 10.4 Conditions to avoid:
  - Stable under normal conditions.
- 10.5 Incompatible materials:
  - None in particular.
- 10.6 Hazardous decomposition products:
  - None.

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#### 11. TOXICOLOGICAL INFORMATION

- 11.1 Information on toxicological effects
    - There is no toxicological data available on the mixture. Consider the individual concentration of each component to assess toxicological effects resulting from exposure to the mixture.
- Toxicological information on main components of the mixture:

##### IC-REFL-MAT-BULK-THERMACELL BIG MAT

d-Allethrin;(Pynamin forte); (RS)-3-allyl-2-methyl-4-oxocyclopent-2-enyl  
(1R)-cis,trans-2,2-dimethyl-3-(2-methylprop-1-enyl)cyclopropanecarboxylate - Index: N.A.,  
CAS: 231937-89-6, EC No: 209-542-4

EYE RBT Non-irritant  
IHL RAT LC50 >3,875 mg/l  
ORL RAT LD50 900 mg/Kg  
SKN GPG Non-sensitiser  
SKN RBT Non-irritant  
SKN RBT LD50 2260 mg/Kg

Distillates (petroleum), hydrotreated light - Index: 649-422-00-2, CAS: 64742-47-8, EC No:  
265-149-8

Acute:  
Inhalation: Vapor concentrations above recommended exposure levels may be irritating to the eyes and the respiratory tract, may cause headaches and dizziness, could be anesthetic and may have other central nervous system effects.

## Safety Data Sheet

### IC-REFL-MAT-BULK-THERMACELL BIG MAT

#### Skin Contact:

Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.

low order of toxicity.

Eye Contact: Will cause eye discomfort, but will not injure eye tissue.

Ingestion: Small amounts of liquid aspirated into the respiratory system during ingestion or from vomiting may cause bronchopneumonia or pulmonary edema.

Minimal toxicity.

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## 12. ECOLOGICAL INFORMATION

### 12.1 Toxicity

Adopt good working practices, so that the product is not released into the environment.

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

d-Allethrin;(Pynamin forte); (RS)-3-allyl-2-methyl-4-oxocyclopent-2-enyl

(1R)-cis,trans-2,2-dimethyl-3-(2-methylprop-1-enyl)cyclopropanecarboxylate - Index: NA,

CAS: 231937-89-6, EC No: 209-542-4

Test: LC50 Species: Daphnia Duration h: N.A. mg/l: 0.047

### 12.2 Persistence and degradability

None

### 12.3 Bioaccumulative potential

N.A.

### 12.4 Mobility in soil

N.A.

### 12.5 Results of PBT and vPvB assessment

List of substances dangerous for the environment and corresponding classification:

20% - 25% d-Allethrin;(Pynamin forte); (RS)-3-allyl-2-methyl-4-oxocyclopent-2-enyl

(1R)-cis,trans-2,2-dimethyl-3-(2-methylprop-1-enyl)cyclopropanecarboxylate

CAS: 231937-89-6 EC: 209-542-4

R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

LC50 (Daphnia): 0.047 mg/l

### 12.6 Other adverse effects

None

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## 13. DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

Recover if possible. In so doing, comply with the local and national regulations currently in force.

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## 14. TRANSPORT INFORMATION

### 14.1 UN number:

ADR-UN number: 3077

IATA-Un number: 3077

IMDG-Un number: 3077

## Safety Data Sheet

### IC-REFL-MAT-BULK-THERMACELL BIG MAT

- 14.2 UN proper shipping name:  
ADR-Shipping Name: Environmentally hazardous substance, solid, N.O.S ( d-Allethrin ). Limited quantity  
IATA-Technical name: Environmentally hazardous substance, solid, N.O.S ( d-Allethrin ). Limited quantity  
IMDG-Technical name: Environmentally hazardous substance, solid, N.O.S ( d-Allethrin ). Limited quantity
- 14.3 Transport hazard class(es):  
ADR-Class: 9  
IATA-Class: 9  
IMDG-Class: 9
- 14.4 Packing Group:  
ADR-Packing Group: III  
IATA-Packing group: III  
IMDG-Packing group: III
- 14.5 Environmental hazards  
Marine pollutant: Marine pollutant
- 14.6 Special Precautions for User  
IMDG-Technical name: Environmentally hazardous substance, solid, N.O.S ( d-Allethrin ). Limited quantity
- 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code  
Environmental Pollutant:

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## 15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture  
Dir. 67/548/EEC (Classification, packaging and labelling of dangerous substances). Dir. 99/45/EEC (Classification, packaging and labelling of dangerous preparations). Dir. 98/24/EC (Risks related to chemical agents at work). Dir. 2000/39/EC (Occupational exposure limit values); Dir. 2006/8/CE. Regulation (CE) n. 1907/2006 (REACH), Regulation (CE) n.1272/2008 (CLP), Regulation (CE) n.790/2009.

Where applicable, refer to the following regulatory provisions :

Directive 82/501/EEC ('Activities linked to risks of serious accidents') and subsequent amendments.

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

1999/13/EC (VOC directive)

15.2 Chemical Safety Assessment

No

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## 16. OTHER INFORMATION

Text of phrases referred to under heading 3:

R20/22 Harmful by inhalation and if swallowed.

R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R65 Harmful: may cause lung damage if swallowed.

R66 Repeated exposure may cause skin dryness or cracking.

This safety data sheet has been completely updated in compliance to Regulation 453/2010/EU.  
This document was prepared by a competent person who has received appropriate training.

## Safety Data Sheet

### IC-REFL-MAT-BULK-THERMACELL BIG MAT

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

CCNL - Appendix 1

Insert further consulted bibliography

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.



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## SAFETY DATA SHEET

## C15 Energy Cell

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### 1 - IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Identification of the substance or preparation:

Name: Gas cartridge

Product code: C15

Company/undertaking identification:

Registered company name:

Address:

Telephone:

Email :

Emergency telephone:

Association/Organisation: Swedish Match

Other emergency telephone numbers:(+31-653545373

Use of the substance/preparation: C15 , small gas containing Receptacle to be used as Gas Cartridge or Energy cell.

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### 2 - HAZARDS IDENTIFICATION

The gas cartridge contains Liquefied Petroleum Gases. Cartridge may burst individually when exposed to high temperatures such as open flame (Cf. SP 104 § 3.2.3).

Energy cells as such do not present a health hazard.

Risk of explosion of individual Energy cell when submitted to unforeseeable abnormal shock, unforeseeable abnormal friction.

**The gas, when released from the cartridge outside the appliance and without burning (improper usage of the C15) does have the following identified hazards:**

EU classification: Extremely Flammable  
Carcinogenic, Category 1  
Mutagenic, Category 2

Human health hazards: Exposure to high vapour concentrations can lead to nausea, headache, dizziness, and in extreme cases, loss of consciousness and death in oxygen deficient environments. Prolonged exposure to vapour may affect the central nervous system.

Safety hazards: Contact with liquid LPG can cause cold burns.  
Extremely flammable liquefied gas, readily explodes in the presence of source of ignition or flame impingement on containers. The vapour is heavier than air, spreads along the ground and distant ignition is possible.

Environmental hazards: No specific hazards under normal use conditions. Liquefied Petroleum Gases are very volatile liquids which on loss of containment will react rapidly with hydroxyl radicals and ozone.

Preparation classification:



R12: Extremely flammable

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### 3 - COMPOSITION/INFORMATION ON INGREDIENTS

Full text of risk phrases appearing in section 3: see section 16.

Hazardous substances present on their own:

C15 Cartridges contain a preparation of Liquefied Petroleum Gasses.

This preparation has 100% maxi of Butane( 60% n-Butane + 40% iso-Butane), 1% maxi of Propane, 150 ppm maxi Sulfur

Other substances representing a hazard:

CAS: 68476-85-7 EC: 270-704-2 Petroleum gases, liquefied

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### 4 - FIRST AID MEASURES

As a general rule, in case of doubt or if symptoms persist, always call a doctor.

In case of hazardous burning on a person, put out the fire and pour water over the burning parts for a longer period. Do not use fats on the burning parts. Do not remove the clothes in the burning region.

**In the event of exposure by inhalation:**

Remove the affected person to fresh air. Keep warm and at rest. If the casualty is stupor, some physical restraint may be necessary to prevent injury. If breathing but unconscious, place in the recovery position. If breathing has stopped, apply artificial respiration. If heartbeats absent, give external cardiac compression.) Monitor breathing and pulse. OBTAIN MEDICAL ATTENTION IMMEDIATELY.

**In the event of splashes or contact with eyes:**

DO NOT DELAY. Flush eye with copious quantities of water to normalize temperature. Cover eye with a sterile dressing. OBTAIN MEDICAL ATTENTION IMMEDIATELY.

**In the event of splashes or contact with skin:**

Drench affected parts with water to normalize temperature. Remove contaminated clothing, rings, watches, etc., if possible, but do not attempt to do so if they are adhering to the skin. Do not attempt to reheat the affected parts rapidly - reheat slowly. Cover with a sterile dressing. Do not apply ointments or powders. Note that contaminated clothing may be a fire hazard. Contaminated clothing should be soaked with water before being removed. It must be laundered before reuse.

**In the event of swallowing:**

In the unlikely event of ingestion, obtain medical attention immediately.

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### 5 - FIRE-FIGHTING MEASURES

For extinguishing use Carbon dioxide dry chemical or water spray.

Special protective equipment for fire-fighters:

Protection from bursting C15 Cartridge is required if it's subjected to high temperature or open flames.

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## 6 - ACCIDENTAL RELEASE MEASURES

### Personal precautions:

Gas cartridges should only be used for the purpose and as refill for the appliance as mentioned on the consumer packing. Follow the written instructions.  
Consult the safety measures listed under headings 7 and 8.

### Environmental precautions:

LPG will evaporate as soon as it is released from the cartridge

Dispose of waste recovered in accordance with applicable regulations (see heading 13).

Methods for cleaning up: n.a.

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## 7 - HANDLING AND STORAGE

The regulations relating to storage premises apply to workshops where the product is handled.

### Handling:

Do not puncture or put in fire.

Do not expose the Gas Cartridge to heat or high temperature (Cf. SP 104 § 3.2.3).

Avoid direct contact with acid and solvents.

Do not put the Gas Cartridge in full sunlight.

### Fire prevention:

Avoid the storage of Gas Cartridges close to highly flammable materials.

No smoking and open fire during handling and storage.

### Recommended equipment and procedures:

For personal safety, see §8.

Be sure the Gas Cartridge is detached from any portable appliance when not in use.

### Prohibited equipment and procedures:

Do not store the Gas Cartridge at high temperature or close to a heat source

### Storage:

Gas cartridges should be stored in the original packing.

It is suitable to store the Gas Cartridge between -10 and + 50°C in dry and well ventilated places.

Do not store the Gas Cartridge in full sunlight.

### Specific use(s):

Containers for Gas Cartridges shall be well ventilated.

Cartons of Gas Cartridges are conform to UN 2037.

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## 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

No specific personal protective equipment.

Gas cartridges should only be used for the purpose and as refill for the appliance as mentioned on the consumer packing. Follow the written instructions.

Protection from bursting Gas Cartridges is required if they are subjected to high temperature or open flame.

For further information, see § 11 of S.D.S. - Toxicological information.

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## 9 - PHYSICAL AND CHEMICAL PROPERTIES

General information for the LPG inside the Cartridge:

<i>PHYSICAL STATE:</i>	Liquefied Petroleum Gases under pressure
<i>COLOR AND ODOR:</i>	Colorless with faint disagreeable odor.
<i>CHANGE IN PHYSICAL STATE:</i>	Boiling point at 1 atm: -1°C.
<i>FLASH POINT:</i>	- 40 °C
<i>AUTOIGNITION TEMPERATURE:</i>	Minimum temperature at 1 atm: 410°C.
<i>FLAMMABLE LIMITS IN THE AIR:</i>	Lower limit at 20°C, 1 atm: 1.44 Vol%.
<i>EXPLOSION PROPERTIES:</i>	Upper limit at 20°C, 1 atm: 8.5 Vol%.
<i>VAPOUR PRESSURE:</i>	circa 345 kPa at 20 °C
<i>VAPOUR DENSITY (air=1):</i>	circa 2 at 15 °C
<i>DENSITY(liquid phase):</i>	563 kg.m-3.
<i>SOLUBILITY:</i>	insoluble in water

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## 10 - STABILITY AND REACTIVITY

The liquid gas kept inside the Gas Cartridge is stable at the handling and storage conditions recommended per § 7 of the safety data sheet,

Materials to avoid:

Instabilities mainly characterized by burst may occur when the Energy cell is exposed to excessive heat.

Hazardous decomposition products: CO<sub>2</sub>, CO or open flame.

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## 11 - TOXICOLOGICAL INFORMATION

No acute toxicity nor local effect. Used Specification: Butadien < 0,1%

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## 12 - ECOLOGICAL INFORMATION

The by-products from degradation of Gas Cartridges are CO<sub>2</sub> and H<sub>2</sub>O.

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## 13 - DISPOSAL CONSIDERATIONS

Damaged Gas Cartridges are to be returned to distributor or manufacturer.

Empty Gas Cartridges may be disposed at suitable landfill or conformed to the local legislation.

Do not incinerate or puncture.

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## 14 - TRANSPORT INFORMATION

**UN Number: 2037**

Class: 2, 5F ;2(D)

INTERNATIONAL REGULATIONS: **LAND:** RID, RTMD, DoT 49 CFR, ADR  
**AIR:** IATA-DGR, Icao-it.  
**SEA:** OMI, IMDG.



## 15 - REGULATORY INFORMATION

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R12 Extremely flammable.

**EU Safety Phrases:**

S2 Keep out of the reach of children.

S9 Keep container in a well-ventilated place.

S16 Keep away from sources of ignition – No Smoking.

S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S53 Avoid exposure – obtain special instructions before use.

**Other information:** C15 gas cartridge contains liquid petroleum gases. As such it's currently exempt from the health labelling provisions of European Commission Directive 67/548/EEC.

**Particular provisions:**

Extremely Flammable

Content under pressure

Do puncture or put in a fire.

Keep away from extreme heat

Never expose to heat above 50°C or to prolonged sunlight.

Be sure the Gas Cartridge is detached from any portable appliance when not in use.

Keep away from small children.

Misuse may cause serious injury.

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## 16 - OTHER INFORMATION

Since the user's working conditions are not known by us, the information supplied on this safety data sheet is based on our current level of knowledge and on national and community regulations. The product must not be used for any purposes other than those specified under heading 1 without first obtaining written handling instructions.

It is at all times the responsibility of the user to take all necessary measures to comply with legal requirements and local regulations.

The information given on this safety data sheet must be regarded as a description of the safety requirements relating to our product and not a guarantee of its properties

Each individual Gas Cartridges is tested in compliance to Swedish Match SP 104.

It should be pointed out that the product is not a chemical product as per definition § 3-11 of ISO 11014-1, but only one part of it, is a chemical product.

The Gas Cartridge is designed to bring a safety use of the dangerous chemical product, after careful reading of the safety notice.

However, this Safety Data Sheet has been written as if Gas Cartridges were chemical products.

Section 9 does not apply to the Gas Cartridge but to the chemical product confined hermetically in a reservoir equipped with a controlled evaporation system.

The purpose of this Safety Data Sheet is to help the receiver with the use of this product.

This list of information is not exhaustive and do not keep the receiver from making sure that other relevant obligations might specifically be attributed to his concern.

For Europe, within the REACH regulation, the Gas Cartridge is seen as an article containing LPG.

LPG, being a liquefied prepartate of natural gases, is exempted for REACH as long as the Gas Cartridge is used in the intended manor: Gas should only be released from the Cartridge when placed with unique fitting in an Appliance designed to open it.