

# SAFETY DATA SHEET

## Flux-Off Lead-Free

### 1. Identification of the substance/preparation and of the company/undertaking

**Identification of the substance or preparation**

**Product name** : Flux-Off Lead-Free  
**Synonyms** : ES897BE  
**Use of the substance/preparation** : CLEANING PRODUCTS  
**Company/undertaking identification**  
**Manufacturer** : ITW Chemtronics  
8125 Cobb Center Drive  
Kennesaw, GA 30152  
**Supplier** :  
  
**Importer** : ITW Chemtronics  
Rocol House  
Swillington Leeds  
LS26 8BS  
United Kingdom  
+44 (0) 1132322625  
**Emergency telephone number** : Chemtrec - Call Collect 703-527-3887

### 2. Composition/information on ingredients

**Substance/Preparation** : Preparation

Ingredient Name	CAS number	%	EC Number	Classification
Hydrocarbons, C <sub>&gt;=5</sub> , C5-6 rich Acetone	68476-50-6 67-64-1	20-50 20-50	270-690-8 200-662-2	Xn; R65 F; R11 Xi; R36 R66, 67
CARBON DIOXIDE Methanol	124-38-9 67-56-1	5-10 1-2	204-696-9 200-659-6	F; R11 T; R23/24/25, 39/23/24/25
See Section 16 for the full text of the R Phrases declared above				

\* Occupational Exposure Limit(s), if available, are listed in Section 8

### 3. Hazards identification

The preparation is classified as dangerous according to Directive 1999/45/EC and its amendments.

**Classification** : F; R11  
R66, 67**Physical/chemical Hazards** : Highly flammable.**Human health hazards** : Repeated exposure may cause skin dryness or cracking.  
Vapours may cause drowsiness and dizziness.

See Section 11 for more detailed information on health effects and symptoms.

### 4. First aid measures

**First aid measures**

**Inhalation** : If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if symptoms appear.

**Ingestion** : Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately.

**Skin Contact** : Wash with soap and water. Get medical attention if irritation develops.

**Eye contact** : In case of contact, immediately flush eyes with a copious amount of water for at least 15 minutes. Obtain medical attention immediately.

**Specific treatments** :

See Section 11 for more detailed information on health effects and symptoms.

## 5. Fire-fighting measures

- Extinguishing media** : In case of fire, use water spray (fog), foam, dry chemical, or C&D
- Special exposure hazards** : Highly flammable liquid and vapour. Pressurized container: protect from sunlight and do not expose to temperature exceeding 50°C. Do not pierce or burn, even after use. Vapour may cause flash fire.  
Not available.
- Hazardous thermal decomposition products** : These products are carbon oxides (CO, C<sub>2</sub>H<sub>4</sub>).
- Special protective equipment for fire-fighters** : Fire-fighters should wear self-contained positive pressure breathing apparatus (SCBA) and full turnout gear.

## 6. Accidental release measures

- Personal Precautions** : Immediately contact emergency personnel. Eliminate all ignition sources. Keep unnecessary personnel away. Use suitable protective equipment (Section 8). Follow all fire fighting procedures (Section 5). Do not touch or walk through spilled material.
- Environmental precautions and cleanup methods** : Minimize contact of spilled material with soils to prevent runoff to surface waterways. See Section 13 for Waste Disposal Information.  
If emergency personnel are unavailable, contain spilled material. For small spills add absorbent (soil may be used in the absence of other suitable materials) and use a non-sparking or explosion proof means to transfer material to a sealed, appropriate container for disposal. For large spills dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Place spilled material in an appropriate container for disposal.

**Note:** See section 8 for personal protective equipment and section 13 for waste disposal.

## 7. Handling and storage

- Handling** : Keep away from heat. Keep away from sources of ignition - No smoking. Keep in a cool, well-ventilated place. Avoid contact with eyes, skin and clothing. Do not breathe gas/fumes/vapour/spray.
- Storage** : Keep container in a cool, well-ventilated area. Do not puncture, incinerate or store the container at temperatures above 49°C (120°F) or in direct sunlight.
- Packaging materials**
- Recommended** : Use original container.
- Specific uses** :

## 8. Exposure controls/personal protection

<u>Ingredient Name</u>	<u>Occupational Exposure Limits</u>
Acetone	<b>EU OEL (Europe, 2000). Notes: Indicative</b> TWA: 1210 mg/m <sup>3</sup> 8 hour(s). TWA: 500 ppm 8 hour(s).
CARBON DIOXIDE	<b>80/1107/EEC (Europe, 1996).</b> TWA: 9000 mg/m <sup>3</sup> 8 hour(s). TWA: 5000 ppm 8 hour(s).
Methanol	<b>EU OEL (Europe, 1991). Notes: Indicative</b> TWA: 260 mg/m <sup>3</sup> 8 hour(s). TWA: 200 ppm 8 hour(s).

### Exposure controls

- Occupational exposure controls** : Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapours below their respective occupational exposure limits. Ensure that eyewash stations and safety showers are close to the workstation location.
- Respiratory protection** : A respirator is not needed under normal and intended conditions of product use.
- Hand protection** : Use chemical resistant, impervious gloves.
- Eye protection** : Safety glasses. Goggles, face shield, or other full-face protection if potential exists for direct exposure to aerosols or splashes.
- Skin protection** : No special protective clothing is required.

## 9. Physical and chemical properties

### General information

#### Appearance

- Physical state** : Liquid.
- Colour** : Colourless.
- Odour** : Hydrocarbon. (Slight.)
- Odour threshold** : The lowest known value is 100 ppm (Methanol)

### Important health, safety and environmental information

- pH** : Not available.
- Boiling point** : 49°C (120.2°F)
- Melting point** : May start to solidify at -94.2°C (-137.6°F) based on data for: Acetone. Weighted average: -94.34°C (-137.8°F)
- Flash point** : Closed cup: <-29°C (Tagliabue.)

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Flammability (solid, gas)	: Not applicable.
Explosive properties	: Not considered as a product presenting risks of explosion.
Oxidising properties	: Not available.
Vapour pressure	: The highest known value is 12.9 kPa (97 mm Hg) (at 20°C) (Methanol).
Relative density	: Weighted average: 0.85 g/cm <sup>3</sup>
Solubility	: Easily soluble in cold water, hot water.
Vapour density	: >1 (Air = 1)
Evaporation rate (butyl acetate = 1)	: <1 compared to Butyl acetate.

### Other information

Auto-ignition temperature	: The lowest known value is 464.05°C (867.3°F) (Methanol).
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## 10. Stability and reactivity

Stability	: The product is stable.
Hazardous Decomposition Products	: These products are carbon oxides (CO, CO <sub>2</sub> ).

## 11. Toxicological information

### Potential Acute Health Effects

Inhalation	: Inhalation causes headaches, dizziness, drowsiness, and nausea, and may lead to unconsciousness.
Ingestion	: ASPIRATION HAZARD.
Skin Contact	: Slightly irritating to the skin.
Eye contact	: May cause slight transient irritation.

### Acute toxicity

<u>Ingredient Name</u>	<u>Test</u>	<u>Result</u>	<u>Route</u>	<u>Species</u>
Acetone	LD50	5800 mg/kg	Oral	Rat
	LD50	5340 mg/kg	Oral	Rabbit
Methanol	LD50	5628 mg/kg	Oral	Rat
	LD50	14200 mg/kg	Oral	Rabbit
	LD50	7300 mg/kg	Oral	Mouse
	LD50	15800 mg/kg	Dermal	Rabbit
	LDLo	143 mg/kg	Oral	human
	LDLo	428 mg/kg	Oral	human
	LDLo	6422 mg/kg	Oral	man
	LDLo	393 mg/kg	Dermal	Monkey
	LC50	64000 (4 hour(s))	Inhalation	Rat

Carcinogenicity	: NO KNOWN EFFECT.
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### Over-exposure signs/symptoms

Target Organs	: Contains material which causes damage to the following organs: the nervous system, gastrointestinal tract, upper respiratory tract, skin, central nervous system (CNS), eye, lens or cornea.
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Other adverse effects	: Not available.
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## 12. Ecological information

### Ecotoxicity Data

<u>Ingredient Name</u>	<u>Species</u>	<u>Period</u>	<u>Result</u>
Acetone	Daphnia magna (EC50)	48 hour(s)	23.5 mg/l
	Pimephales promelas (EC50)	48 hour(s)	8990 mg/l
	Daphnia magna (EC50)	48 hour(s)	13500 mg/l
	Pimephales promelas (LC50)	96 hour(s)	>100 mg/l
	Daphnia magna (LC50)	96 hour(s)	>100 mg/l
	Oncorhynchus mykiss (LC50)	96 hour(s)	5540 mg/l
Methanol	Daphnia magna (EC50)	48 hour(s)	>10000 mg/l
	Oncorhynchus mykiss (EC50)	48 hour(s)	13200 mg/l
	Lepomis macrochirus (EC50)	48 hour(s)	16000 mg/l
	Pimephales promelas (LC50)	96 hour(s)	>100 mg/l
	Daphnia magna (LC50)	96 hour(s)	>100 mg/l
	Lepomis macrochirus (LC50)	96 hour(s)	15400 mg/l

Mobility	:
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Other adverse effects	: Not available.
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## 13. Disposal considerations

Methods of disposal	: Avoid contact of spilled material and runoff with soil and surface waterways. Dispose of according to all federal, state and local applicable regulations.
Waste Classification	: Not applicable.
European Waste Catalogue (EWC)	: Not available.
Hazardous Waste	: The classification of the product may meet the criteria for a hazardous waste

## 14. Transport information

### International transport regulations

Regulatory information	UN number	Proper shipping name	Class	Packing group	Label	Additional Information
ADR/RID Class	1950	Aerosol.Flamammable.	2	-		-
ADN Class	1950	Aerosol. Flammable.	ADN Class: Flammab liquid with a flash point lower than 21°C (70°F).	-		-
IMDG Class	1950	Aerosol. Flammable.	2.1	-		-
IATA-DGR Class	1950	Aerosol. Flammable.	2.1	-		-

## 15. Regulatory information

### EU Regulations

Hazard symbol(s)

:



Highly flammable

Risk phrases

:

R11- Highly flammable.  
R66- Repeated exposure may cause skin dryness or cracking.  
R67- Vapours may cause drowsiness and dizziness.

Safety Phrases

:

S16- Keep away from sources of ignition - No smoking.  
S51- Use only in well-ventilated areas.  
S23- Do not breathe gas/fumes/vapour/sprayS2- Keep out of the reach of children.

Contains

:

Hydrocarbons, C<sub>5</sub>-5, C<sub>5</sub>-6 rich 270-690-8

Product Use

:

Classification and labelling have been performed according to EU directives 67/548/EEC, 1999/45/EC, including amendments and the intended use.  
- Industrial applications, Used by Spraying.

Restrictions on the Marketing and Use Directive

:

EC Statistical Classification (Tariff Code)

: 32089091

## 16. Other information

Full text of R phrases referred to in Sections 2 and 3 - Europe

:

R11- Highly flammable.  
R23/24/25- Toxic by inhalation, in contact with skin and if swallowed.  
R39/23/24/25- Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowec  
R65- Harmful: may cause lung damage if swallowed.  
R36- Irritating to eyes.  
R66- Repeated exposure may cause skin dryness or cracking.  
R67- Vapours may cause drowsiness and dizziness.

Full text of classifications referred to in Sections 2 and 3 - Europe

:

F - Highly flammable  
Xn - Harmful  
Xi - Irritant

### HISTORY

Date of printing

: 3/7/2005.

Date of issue

: 3/4/2005.

Date of previous issue

: No Previous Validation.

Version

: 1

**Flux-Off Lead-Free**

Prepared by \_\_\_\_\_ :

Notice to Reader

*To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.*

*Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.*

Version 1

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