

SAFETY DATA SHEET

Flux-Off Water Soluble

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

Identification of the substance or preparation**Product name** : Flux-Off Water Soluble**Synonyms** : ES830BE**Use of the substance/preparation** : CLEANING PRODUCTS**Company/undertaking identification****Manufacturer** : ITW Chemtronics
8125 Cobb Center Drive
Kennesaw, GA 30152**Supplier** : [
[
[
[**Importer** : ITW Contamination Control
Skejby Nordlandsvej 307
DK-8200 Aarhus N
Denmark
Tel +45 87 400 220
Fax +45 87 400 222
Email: info@itw-cc.com**Emergency telephone number** : Chemtrec - 1-800-424-9300 or collect 703-527-3887

2. Composition/information on ingredients

Substance/Preparation : Preparation

Ingredient Name	CAS number	%	EC Number	Classification
propan-2-ol	67-63-0	60-80	200-661-7	F; R11 Xi; R36 R67
butane	106-97-8	10-15	203-448-7	F+; R12
Propane	74-98-6	10-15	200-827-9	F+; R12
Propyl acetate	109-60-4	1-3	203-686-1	F; R11 Xi; R36 R66, 67
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+; R12**Physical/chemical Hazards** : Extremely flammable.**Human health hazards** : Irritating to eyes.
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** : In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Obtain medical attention.**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 CO₂.
- Special exposure hazards** : Highly flammable liquid and vapour. Vapour may cause flash fire. Vapours may accumulate in low or confined areas, travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard.
Not available.
- Hazardous thermal decomposition products** : These products are carbon oxides (CO, CO₂).
- 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** : Avoid contact with eyes. Keep container closed. Use only with adequate ventilation. Keep away from heat, sparks and flame. To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Wash thoroughly after handling.
- Storage** : Store in a segregated and approved area. Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame).
- Packaging materials**
- Recommended** : Use original container.
- Specific uses** :

8. Exposure controls/personal protection

<u>Ingredient Name</u>	<u>Occupational Exposure Limits</u>
propan-2-ol	ACGIH TLV (United States, 2000). STEL: 400 ppm 15 minute(s). TWA: 200 ppm 8 hour(s).
butane	ACGIH TLV (United States, 2000). TWA: 1900 mg/m ³ 8 hour(s). TWA: 800 ppm 8 hour(s).
Propane	Simple asphyxiant.
Propyl acetate	ACGIH TLV (United States, 2000). STEL: 1040 mg/m ³ 15 minute(s). STEL: 250 ppm 15 minute(s). TWA: 835 mg/m ³ 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** : Use appropriate respiratory protection if there is the potential to exceed the exposure limit(s).
- Hand protection** : Use latex 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** : Additional body garments should be used based upon the task being performed (e.g., sleevelets, apron, gauntlets, disposable suits).

9. Physical and chemical properties

General information

Appearance

- Physical state : Liquid.
 Colour : Colourless.
 Odour : Alcohol-like.

Important health, safety and environmental information

- pH : Not available.
 Boiling point : 82°C (179.6°F)
 Melting point : May start to solidify at -88.83°C (-127.9°F) based on data for: propan-2-ol. Weighted average: -88.99°C (-128.2°F)
 Flash point : Closed cup: 12°C (53.6°F). (Tagliabue.)
 Explosive properties : Not considered as a product presenting risks of explosion.
 Oxidising properties : Not available.
 Vapour pressure : 4.3989 kPa (33 mm Hg) (at 20°C)
 Relative density : Weighted average: 0.79 g/cm³
 Solubility : Easily soluble in cold water, hot water, methanol, diethyl ether, n-octanol and acetone.
 Vapour density : >1 (Air = 1)
 Evaporation rate (butyl acetate = 1) : <1

Other information

- Auto-ignition temperature : The lowest known value is 399.05°C (750.3°F) (propan-2-ol).

10. Stability and reactivity

- Stability : The product is stable.
 Hazardous Decomposition Products : These products are carbon oxides (CO, CO₂).

11. Toxicological information

Potential Acute Health Effects

- Inhalation : Irritant
 Ingestion : No specific hazard.
 Skin Contact : No specific hazard.
 Eye contact : Irritating to eyes.

Acute toxicity

<u>Ingredient Name</u>	<u>Test</u>	<u>Result</u>	<u>Route</u>	<u>Species</u>
propan-2-ol	LD50	5045 mg/kg	Oral	Rat
	LD50	6410 mg/kg	Oral	Rabbit
	LD50	3600 mg/kg	Oral	Mouse
	LD50	12800 mg/kg	Dermal	Rabbit
	LDLo	1537 mg/kg	Oral	Dog
	LDLo	3570 mg/kg	Oral	human
	LDLo	5272 mg/kg	Oral	man
Propyl acetate	LD50	9370 mg/kg	Oral	Rat
	LD50	6640 mg/kg	Oral	Rabbit
	LD50	8300 mg/kg	Oral	Mouse

- Carcinogenicity : ClassifiedNone.

Over-exposure signs/symptoms

- Target Organs : Contains material which causes damage to the following organs: lungs, the nervous system, upper respiratory tract, skin, central nervous system (CNS), eye, lens or cornea.

12. Ecological information

Ecotoxicity Data

<u>Ingredient Name</u>	<u>Species</u>	<u>Period</u>	<u>Result</u>	
propan-2-ol	Pimephales promelas (EC50)	48 hour(s)	10000 mg/l	
	Lepomis macrochirus (LC50)	96 hour(s)	>1400 mg/l	
	Pimephales promelas (LC50)	96 hour(s)	6550 mg/l	
	Pimephales promelas (LC50)	96 hour(s)	9640 mg/l	
	Pimephales promelas (LC50)	96 hour(s)	10400 mg/l	
	Pimephales promelas (LC50)	96 hour(s)	11130 mg/l	
	Propyl acetate	Pimephales promelas (EC50)	48 hour(s)	66 mg/l
		Pimephales promelas (LC50)	96 hour(s)	60 mg/l





- Other adverse effects : Not available.

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	UN1950	Aerosol.Flammable	ADR Class: Flammab gas.	II		-
ADN Class	UN1950	Aerosol. Flammable	ADN Class: Flammab gas.	II		-
IMDG Class	UN1950	Aerosol. Flammable	IMDG Class 2.1: Flammab gas.	II		-
IATA-DGR Class	UN1950	Aerosol. Flammable	IATA Class 2.1: Flammab gas.	II		-

15. Regulatory information

EU Regulations

Hazard symbol(s) :



Extremely flammable

Risk phrases : R12- Extremely flammable.

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 : butane 203-448-7

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

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 : R12- Extremely flammable.
R11- Highly flammable.
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+ - Extremely flammable
F - Highly flammable
Xi - Irritant

HISTORY

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Flux-Off Water Soluble

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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 1.02

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