

SAFETY DATA SHEET

Lead-Free Flux Dispensing Pen - CW8400

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Identification of the substance or preparation

Product name : Lead-Free Flux Dispensing Pen - CW8400**Product type** : Liquid.**Use of the substance/preparation** : FLUXES (FOR SOLDERING)

Company/undertaking identification

Manufacturer : ITW Chemtronics
8125 Cobb Center Drive
Kennesaw, GA 30152

Tel. 770-424-4888 or toll free 800-645-5244**Distributor** :**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**e-mail address of person responsible for this SDS** : askchemtronics@chemtronics.com**Emergency telephone number (with hours of operation)** : Chemtrec - 1-800-424-9300 or collect 703-527-3887

2. HAZARDS IDENTIFICATION

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

Classification : F; R11
Xi; R36
R42/43**Physical/chemical hazards** : Highly flammable.**Human health hazards** : Irritating to eyes. May cause sensitisation by inhalation and skin contact.**See section 11 for more detailed information on health effects and symptoms.**

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/preparation : Preparation

Ingredient name	CAS number	%	EC number	Classification
propan-2-ol	67-63-0	50 - 90	200-661-7	F; R11 [1] [2] Xi; R36 R67
rosin	8050-09-7	10 - 20	232-475-7	R43 [1] [2]
Solvent naphtha (petroleum), medium aliph.	64742-88-7	1 - 5	265-191-7	Xn; R65 [1]
See section 16 for the full text of the R-phrases declared above				

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

Occupational exposure limits, if available, are listed in section 8.

4. FIRST AID MEASURES

First-aid measures

Inhalation : Move exposed person to fresh air. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

4. FIRST AID MEASURES

- Ingestion** : Wash out mouth with water. Remove dentures if any. Move exposed person to fresh air. Keep person warm and at rest. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.
- Notes to physician** : No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

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

5. FIRE-FIGHTING MEASURES**Extinguishing media**

- Suitable** : Use dry chemical, CO₂, water spray (fog) or foam.
- Not suitable** : Do not use water jet.
- Special exposure hazards** : Highly flammable liquid and vapour. Vapour may cause flash fire. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see section 8).
- Environmental precautions** : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
- Methods for cleaning up**
- Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. Note: see section 1 for emergency contact information and section 13 for waste disposal.

7. HANDLING AND STORAGE

- Handling** : Avoid contact with eyes, skin and clothing. Use only with adequate ventilation. Keep away from heat, sparks and flame. Workers should wash hands and face before eating, drinking and smoking. Persons with a history of skin sensitization problems should not be employed in any process in which this product is used.
- Storage** : Avoid all possible sources of ignition (spark or flame).
- Packaging materials**
- Recommended** : Use original container.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

<u>Ingredient name</u>	<u>Occupational exposure limits</u>
propan-2-ol	EH40/2005 WELs (United Kingdom (UK), 8/2007). STEL: 1250 mg/m ³ 15 minute(s). STEL: 500 ppm 15 minute(s). TWA: 999 mg/m ³ 8 hour(s). TWA: 400 ppm 8 hour(s).
rosin	EU OEL (Europe, 1989). Skin sensitiser. Inhalation sensitiser. Notes: TWA: 0.05 mg/m ³ 8 hour(s).

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to European Standard EN 689 for methods for the assessment of exposure by inhalation to chemical agents and national guidance documents for methods for the determination of hazardous substances.

Exposure controls

Occupational exposure controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. 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.

Skin protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

9. PHYSICAL AND CHEMICAL PROPERTIES**General information****Appearance**

- Physical state** : Liquid.
Colour : Colourless to light yellow.
Odour : Alcohol-like.

Important health, safety and environmental information

- Boiling point** : Lowest known value: 82.5°C (180.5°F) (propan-2-ol).
Melting point : May start to solidify at the following temperature: -88.9°C (-128°F) This is based on data for the following ingredient: propan-2-ol.
Flash point : Closed cup: 17°C (62.6°F).
Explosive properties : Not considered to be a product presenting a risk of explosion.
Relative density : Only known value: 0.785 (Water = 1) (propan-2-ol).
Vapour density : Highest known value: 2.07 (Air = 1) (propan-2-ol).
Evaporation rate (butyl acetate = 1) : 1.7 (propan-2-ol) compared with butyl acetate

Other information

- Auto-ignition temperature** : Lowest known value: 399°C (750.2°F) (propan-2-ol).

10. STABILITY AND REACTIVITY

- Stability** : The product is stable.
Conditions to avoid : Avoid all possible sources of ignition (spark or flame).
Materials to avoid : Highly reactive or incompatible with the following materials:
oxidizing materials
Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11. TOXICOLOGICAL INFORMATION**Potential acute health effects**

- Inhalation** : Vapours may cause drowsiness and dizziness. May cause sensitisation by inhalation.
Ingestion : No known significant effects or critical hazards.
Skin contact : May cause skin irritation. May cause sensitisation by skin contact.
Eye contact : Irritating to eyes.

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
propan-2-ol	LD50 Dermal	Rabbit	12800 mg/kg	-
	LD50 Intraperitoneal	Rat	2735 mg/kg	-
	LD50 Intravenous	Rat	1088 mg/kg	-
	LD50 Oral	Rat	5045 mg/kg	-
	LD50 Oral	Rat	5000 mg/kg	-
	TDL _o	Rat	800 mg/kg	-
	LC50 Inhalation Gas.	Rat	16000 ppm	8 hours
	LD50 Oral	Rat	3 mg/kg	-
Rosin	LD50 Oral	Rat	3 mg/kg	-

Potential chronic health effects

- Chronic effects** : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
Carcinogenicity : No known significant effects or critical hazards.
Mutagenicity : No known significant effects or critical hazards.
Teratogenicity : No known significant effects or critical hazards.
Developmental effects : No known significant effects or critical hazards.
Fertility effects : No known significant effects or critical hazards.

Over-exposure signs/symptoms

- Inhalation** : Adverse symptoms may include the following:
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
- Ingestion** : No specific data.
- Skin** : Adverse symptoms may include the following:
irritation
redness
- Eyes** : Adverse symptoms may include the following:
irritation
watering
redness
- Target organs** : Contains material which causes damage to the following organs: eye, lens or cornea.
Contains material which may cause damage to the following organs: upper respiratory tract, skin, central nervous system (CNS).

12. ECOLOGICAL INFORMATION

- Environmental effects** : No known significant effects or critical hazards.

Aquatic ecotoxicity

Product/ingredient name	Test	Result	Species	Exposure
propan-2-ol	-	Acute LC50 11130000 ug/L Fresh water	Fish - Fathead minnow - Pimephales promelas - Juvenile (Fledgling, Hatchling, Weanling) - 4 to 8 weeks - 1.1 to 3.1 cm	96 hours
	-	Acute LC50 10400000 to 10600000 ug/L Fresh water	Fish - Fathead minnow - Pimephales promelas - 29 days - 20 mm - 0.103 g	96 hours
	-	Acute LC50 9640000 to 10000000 ug/L Fresh water	Fish - Fathead minnow - Pimephales promelas - 31 days - 20.6 mm - 0.117 g	96 hours
	-	Acute LC50 6550000 to	Fish - Fathead minnow -	96 hours

12. ECOLOGICAL INFORMATION

7450000 ug/L Fresh water	Pimephales promelas - 31 days - 17.4 mm - 0.082 g
- Acute LC50 4200000 ug/L Fresh water	Fish - 96 hours Harlequinfish, red rasbora - Rasbora heteromorpha - 1 to 3 cm
- Acute LC50 1400000 to 1950000 ug/L Marine water	Crustaceans - 48 hours Common shrimp, sand shrimp - Crangon crangon
- Acute LC50 >1400000 ug/L	Fish - Western 96 hours mosquitofish - Gambusia affinis - 20 to 30 mm

Conclusion/Summary : Not available.

Biodegradability

Conclusion/Summary : Not available.





Other adverse effects : No known significant effects or critical hazards.

13. DISPOSAL CONSIDERATIONS

Methods of disposal : Avoid contact of spilt material and runoff with soil and surface waterways. Dispose of according to all federal, state and local applicable regulations.

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	Classes	PG*	Label	Additional information
ADR/RID Class	1993	Flammable liquid, n.o.s. (propan-2-ol)	3	-		-
ADN/ADNR Class	1993	FLAMMABLE LIQUID, N.O.S.(propan-2-ol)	3	-		-
IMDG Class	1993	Flammable liquid, n.o.s. (propan-2-ol)	3	II		-Limited quantity
IATA Class	1993	Flammable liquid, n.o.s. (propan-2-ol)	3	II		-Excepted Quantity

PG* : Packing group

15. REGULATORY INFORMATION**EU regulations**

Classification and labeling have been determined according to EU Directives 67/548/EEC and 1999/45/EC (including amendments) and take into account the intended product use.

Hazard symbol or symbols :



Highly flammable, Irritant

Risk phrases

: R11- Highly flammable.
R36- Irritating to eyes.
R42/43- May cause sensitisation by inhalation and skin contact.

Safety phrases

: S24- Avoid contact with skin.
S37- Wear suitable gloves.
S51- Use only in well-ventilated areas.

Contains

: rosin

Product use

: Classification and labeling have been determined according to EU Directives 67/548/EEC and 1999/45/EC (including amendments) and take into account the intended product use.
- Industrial applications

Europe inventory

: All components are listed or exempted.

16. OTHER INFORMATION

Full text of R-phrases referred to in sections 2 and 3 - United Kingdom (UK) : R11- Highly flammable.
R65- Harmful: may cause lung damage if swallowed.
R36- Irritating to eyes.
R43- May cause sensitisation by skin contact.
R67- Vapours may cause drowsiness and dizziness.

Full text of classifications referred to in sections 2 and 3 - United Kingdom (UK) : F - Highly flammable
Xn - Harmful
Xi - Irritant

History

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Date of previous issue : No previous validation.

Version : 2

Prepared by : Not available.

☑ Indicates information that has changed from previously issued version.

Notice to reader

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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.