# SAFETY DATA SHEET

ES897BE Flux-OffR) Lead-Free

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

Identification of the substance or mixture

**Product name** : ES897BE Flux-OffR) Lead-Free

**Product type** : Aerosol.

Use of the substance/mixture : Flux remover for No Clean soldering fluxes used in lead free 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 BV

> Saffierlaan 5 VZ-2132 Hoofddorp The Netherlands

Tel: +31 88 1307 400 FAX: +31 88 1307 499

e-mail address of person responsible for this SDS

: askchemtronics@chemtronics.com

(with hours of operation)

Emergency telephone number : 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; R36/38 R67 N; R51/53

Physical/chemical hazards : Highly flammable.

**Human health hazards** : Irritating to eyes and skin. Vapours may cause drowsiness and dizziness. **Environmental hazards** Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic

environment.

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

## COMPOSITION/INFORMATION ON INGREDIENTS

Substance/preparation : Mixture

Ingredient name	CAS number	%	EC number	Classification
acetone	67-64-1	20 - 50	200-662-2	F; R11 [1] [2] Xi; R36 R66, R67
hexane, reaction mass of isomers containing < 5 % n-hexane (203-777-6)	107-83-5	15 - 35	203-523-4	F; R11 [1] [2] Xn; R65 Xi; R38 R67 N; R51/53
hexane, reaction mass of isomers containing < 5 % n-hexane (203-777-6)	96-14-0	5 - 25	202-481-4	F; R11 [1] [2] Xn; R65 Xi; R38 R67 N; R51/53
hexane, reaction mass of isomers containing < 5 % n-hexane (203-777-6)	79-29-8	5 - 25	201-193-6	F; R11 [1] [2] Xn; R65 Xi; R38 R67 N; R51/53
Carbon dioxide hexane, reaction mass of isomers containing < 5 % n-hexane (203-777-6)	124-38-9 75-83-2	5 - 10 1 - 10	204-696-9 200-906-8	Not classified. [2] F; R11 [1] [2] Xn; R65 Xi; R38 R67 N; R51/53
methanol	67-56-1	0 - 2	200-659-6	F; R11 [1] [2] T; R23/24/25, R39/23/24/25
n-hexane	110-54-3	0 - 1	203-777-6	F; R11 [1] [2]

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3. COMPOSITION/INFORMATION ON INGREDIENTS							
		Repr. Cat. 3; R62 Xn; R48/20, R65 Xi; R38 R67 N; R51/53					
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

: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. 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.

Ingestion

Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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. Continue to rinse for at least 10 minutes. Get medical attention. 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.

Notes to physician

 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 an extinguishing agent suitable for the surrounding fire.

Not suitable

None known

Special exposure hazards

: Flammable aerosol. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Gas may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back, causing fire or explosion. Bursting aerosol containers may be propelled from a fire at high speed. Runoff to sewer may create fire or explosion hazard.

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. This material is toxic to aquatic organisms. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

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. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

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## 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. In the case of aerosols being ruptured, care should be taken due to the rapid escape of the pressurised contents and propellant. If a large number of containers are ruptured, treat as a bulk material spillage according to the instructions in the clean-up section. 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). Water polluting material. May be harmful to the environment if released in large quantities.

## 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 explosionproof 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. 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.

# 7. HANDLING AND STORAGE

### Handling

: Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Pressurised container: protect from sunlight and do not expose to temperature exceeding 50°C. Do not pierce or burn, even after use. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing gas. Avoid breathing vapour or mist. Avoid release to the environment. Refer to special instructions/safety data sheet. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use non-sparking tools. Empty containers retain product residue and can be hazardous.

## Storage

Store in accordance with local regulations. Store in a segregated and approved area. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Eliminate all ignition sources. Use appropriate containment to avoid environmental contamination.

ACGIH TLV (United States, 1/2009).

TWA: 500 ppm 8 hour(s). TWA: 1760 mg/m³ 8 hour(s). STEL: 1000 ppm 15 minute(s).

## **Packaging materials**

Recommended

: Use original container.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

## **Exposure limit values**

#### Occupational exposure limits **Ingredient name** acetone EU OEL (Europe, 4/2006). Notes: Indicative Limit value: 1210 mg/m3 8 hour(s). Limit value: 500 ppm 8 hour(s) ACGIH TLV (United States, 1/2009). hexane, reaction mass of isomers containing < 5 % n-hexane (203-777-6) TWA: 500 ppm 8 hour(s). TWA: 1760 mg/m3 8 hour(s). STEL: 1000 ppm 15 minute(s). STEL: 3500 mg/m3 15 minute(s). hexane, reaction mass of isomers containing < ACGIH TLV (United States, 1/2009). 5 % n-hexane (203-777-6) TWA: 500 ppm 8 hour(s). TWA: 1760 mg/m3 8 hour(s) STEL: 1000 ppm 15 minute(s). STEL: 3500 mg/m3 15 minute(s). ACGIH TLV (United States, 1/2009). hexane, reaction mass of isomers containing < 5 % n-hexane (203-777-6) TWA: 500 ppm 8 hour(s) TWA: 1760 mg/m3 8 hour(s) STEL: 1000 ppm 15 minute(s). STEL: 3500 mg/m3 15 minute(s). EU OEL (Europe, 4/2006). Notes: Indicative Carbon dioxide Limit value: 9000 mg/m3 8 hour(s). Limit value: 5000 ppm 8 hour(s)

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5 % n-hexane (203-777-6)

hexane, reaction mass of isomers containing <

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# **EXPOSURE CONTROLS/PERSONAL PROTECTION**

STEL: 3500 mg/m3 15 minute(s).

methanol EU OEL (Europe, 4/2006). Absorbed through skin. Notes:

Indicative

Limit value: 260 mg/m3 8 hour(s). Limit value: 200 ppm 8 hour(s).

EU OEL (Europe, 4/2006). Notes: Indicative n-hexane

Limit value: 72 mg/m3 8 hour(s). Limit value: 20 ppm 8 hour(s).

procedures

Recommended monitoring : 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. If user operations generate dust, fumes, gas, vapour or mist, 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

: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

**Hand protection** 

: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary

Eye protection

: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or

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.

## PHYSICAL AND CHEMICAL PROPERTIES

## **General information**

**Appearance** 

: Liquid. [Aerosol.] **Physical state** Colour : Colourless.

**Odour** : Hydrocarbon. [Slight] Important health, safety and environmental information

**Boiling point** : 49°C (120.2°F)

: May start to solidify at the following temperature: -94.2°C (-137.6°F) This is based on **Melting point** 

data for the following ingredient: acetone. Weighted average: -120.61°C (-185.1°F)

Flash point : Closed cup: <-7°C (<19.4°F). (Tagliabue.)

Vapour pressure : Highest known value: 12.9 kPa (97 mm Hg) (at 20°C) (methanol).

Relative density : 0.71 (Water = 1) Vapour density : >1 (Air = 1)

Evaporation rate (butyl

: <1 compared with butyl acetate

acetate = 1)

**Other information** 

**Auto-ignition temperature** : Lowest known value: 277.85°C (532.1°F) (3-methylpentane).

## 10. STABILITY AND REACTIVITY

**Stability** : The product is stable

Conditions to avoid Avoid all possible sources of ignition (spark or flame).

Materials to avoid : No specific data.

**Hazardous decomposition** 

products

: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

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# 11. TOXICOLOGICAL INFORMATION

Potential acute health effects

**Inhalation**: Vapours may cause drowsiness and dizziness.

**Ingestion** : Irritating to mouth, throat and stomach.

Skin contact : Irritating to skin.

Eye contact : Irritating to eyes.

**Acute toxicity** 

n-hexane

Product/ingredient name	Result	Species	Dose	Exposure
acetone	LD50	Rat	5500 mg/kg	-

Intravenous
LD50 Oral Rat 5800 mg/kg LDLo Dermal Rabbit 20 mL/kg LDLo Rat 500 mg/kg -

LDLo Rat 500 mg/kg
Intraperitoneal
TDLo Oral Rat 5 mL/kg

LC50 Inhalation Rat 50100 mg/m3 8 hours Vapour

Carbon dioxide LC50 Inhalation Rat 470000 ppm 30 minutes

Gas.

methanol LD50 Dermal Rabbit 15800 mg/kg - LD50 Rat 7529 mg/kg -

| Intraperitoneal | LD50 | Rat | 2131 mg/kg | Intravenous | LD50 | Oral | Rat | 5600 mg/kg |

TDLo Rat 3490 mg/kg - Intraperitoneal TDLo Rat 3000 mg/kg -

Intraperitoneal
TDLo Oral Rat 8 g/kg TDLo Oral Rat 3 g/kg TDLo Oral Rat 3500 mg/kg -

LC50 Inhalation Rat 64000 ppm 4 hours Gas.

LD50 Oral Rat 25 g/kg -LDLo Rat 9100 mg/kg -

Intraperitoneal
TDLo Oral Rat 20000 mg/kg -

LC50 Inhalation Rat 627000 mg/m3 3 minutes Vapour

LC50 Inhalation Rat 48000 ppm 4 hours Gas.

Potential chronic health effects

Chronic effects : No known significant effects or critical hazards.

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.

Over-exposure signs/symptoms

**Fertility effects** 

**Inhalation** : Adverse symptoms may include the following:

nausea or vomiting

respiratory tract irritation coughing 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: the nervous system,

: No known significant effects or critical hazards.

eye, lens or cornea

Contains material which may cause damage to the following organs: gastrointestinal tract, cardiovascular system, upper respiratory tract, skin, central nervous system

(CNS).

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# 12. ECOLOGICAL INFORMATION

**Environmental effects** 

: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

# **Aquatic ecotoxicity**

Aquatic ecotoxicity				
Product/ingredient name acetone	Test -	Result Acute LC50 6900	•	<b>Exposure</b> 48 hours
		mg/L Fresh water Acute LC50 5.54	flea - Daphnia magna Fish - Rainbow	96 hours
	-	to 6.33 ml/L Fresh water	trout,donaldson trout - Oncorhynchus	90 Hours
	-	Acute LC50 13300000 ug/L Fresh water	mykiss - 1 g Daphnia - Water flea - Daphnia magna - <24 hours	48 hours
	-	Acute LC50 12600000 ug/L Fresh water	Daphnia - Water flea - Daphnia magna - <24 hours	48 hours
	-	Acute LC50 12100000 ug/L Fresh water	Daphnia - Water flea - Daphnia magna - <24 hours	48 hours
	-	Acute LC50 11000000 to 11300000 ug/L Marine water	Fish - Bleak - Alburnus alburnus - 8 cm	96 hours
	-	Acute LC50 10700000 ug/L Fresh water	Fish - Fathead minnow - Pimephales promelas - 25 mm	96 hours
	-	Acute LC50 9218000 to 14400000 ug/L Fresh water	Daphnia - Water flea - Daphnia magna - Neonate - <12 hours	48 hours
	-	Acute LC50 9100000 to 9482000 ug/L Fresh water	Fish - Fathead minnow - Pimephales promelas - 2 to 3 months - 19 mm - 0.06 g	96 hours
	-	Acute LC50 8800000 ug/L Fresh water	Daphnia - Water flea - Daphnia pulex - <24 hours	48 hours
	-	Acute LC50 8300000 ug/L Fresh water	Fish - Bluegill - Lepomis macrochirus - 5.3 to 7.2 cm - 3.5 to 3.9 g	96 hours
	-	Acute LC50 8120000 to 8760000 ug/L Fresh water	Fish - Fathead minnow - Pimephales promelas - 33 days - 22.6 mm - 0.159 g	96 hours
	-	Acute LC50 8098000 to 8640000 ug/L Fresh water	Daphnia - Water flea - Ceriodaphnia dubia - Neonate - <12 hours	48 hours
	-	Acute LC50 7810000 ug/L Fresh water	Daphnia - Water flea - Daphnia cucullata - 11 days	48 hours
	-	Acute LC50 7550000 ug/L Fresh water	Crustaceans - Aquatic sowbug - Asellus aquaticus	48 hours
	-	Acute LC50 7460000 ug/L Fresh water	Daphnia - Water flea - Daphnia cucullata - 11 days	48 hours
	-	Acute LC50 7280000 to 7880000 ug/L Fresh water	Fish - Fathead minnow - Pimephales promelas - 28 days - 19.2 mm - 0.076 g	96 hours
	-	Acute LC50 6210000 to	Fish - Fathead minnow -	96 hours

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12. ECOLOGICAL INFORMATI	ON			
		7030000 ug/L Fresh water	Pimephales promelas - 32 days - 18 mm - 0.087 g	
	-	Acute LC50 >100000 ug/L Fresh water	Fish - Fathead minnow - Pimephales promelas - Juvenile (Fledgling, Hatchling,	96 hours
			Weanling) - 0.2 to 0.5 g	
	-	Acute LC50 10000 ug/L Fresh water	magna	48 hours
methanol	-	Acute EC50 22200 to 23400 mg/L Fresh water	Daphnia - Water flea - Daphnia obtusa - Neonate - <24 hours	48 hours
	-	Acute EC50 24500000 to 29350000 ug/L Fresh water	Daphnia - Water flea - Daphnia magna - LARVAE - <24 hours	48 hours
	-	Acute EC50 13000000 to 13400000 ug/L Fresh water	Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss - Juvenile (Fledgling, Hatchling, Weanling) - 0.813 g	96 hours
	-	Acute EC50 12700000 to 13700000 ug/L Fresh water	Fish - Bluegill - Lepomis macrochirus - Juvenile (Fledgling, Hatchling, Weanling) - 3.07 g	96 hours
	-	Acute EC50 >10000000 ug/L Fresh water	Daphnia - Water flea - Daphnia magna - 6 to 24 hours	48 hours
	-	Acute LC50 15500 mg/L Fresh water	Fish - Bluegill - Lepomis macrochirus	96 hours
	-	Acute LC50 3289 to 4395 mg/L Fresh water	Daphnia - Water flea - Daphnia magna - Neonate - <24 hours	48 hours
	-	Acute LC50 19 to 20 ml/L Fresh water	Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss - 0.8 g	96 hours
	-	Acute LC50 >28000000 ug/L Marine water	Fish - Bleak - Alburnus alburnus - 8 cm	96 hours
	-	Acute LC50 28000000 ug/L Marine water	Fish - Bleak - Alburnus alburnus - 8 to 10 cm	96 hours
	-	Acute LC50 20100000 to 20700000 ug/L Fresh water	Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss - Juvenile (Fledgling, Hatchling, Weanling) - 0.813 g	96 hours
	-	Acute LC50 15400000 to 17600000 ug/L Fresh water	Fish - Bluegill - Lepomis macrochirus - Juvenile (Fledgling, Hatchling, Weanling) - 3.07	96 hours

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12. ECOLOGICAL INFORMATION Acute LC50 Fish - Hooknose - 96 hours 10000000 to Agonus 33000000 ug/L cataphractus -Marine water Adult Acute LC50 Crustaceans -48 hours 2500000 ug/L Common shrimp, Marine water sand shrimp -Crangon crangon - Adult Acute LC50 Fish - Fathead 96 hours >100000 ug/L minnow -Fresh water Pimephales promelas Juvenile (Fledgling, Hatchling, Weanling) - 0.2 to 0.5 g Acute LC50 Fish -96 hours 113000 ug/L Mozambique tilapia - Tilapia Fresh water mossambica - 99 mm - 10 g

n-hexane

Acute LC50 2500 Fish - Fathead 96 hours to 2980 ug/L minnow -

> Fresh water Pimephales promelas - 31 days - 20.4 mm -0.123 g

Conclusion/Summary

**Biodegradability** 

: Not available. : Not available.

Conclusion/Summary Other adverse effects

: No known significant effects or critical hazards.

# 13. DISPOSAL CONSIDERATIONS

**Methods of disposal** 

: The generation of waste should be avoided or minimised wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Do not puncture or incinerate container.

**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	1950	AEROSOLS	2	-		Tunnel code (D)
ADN/ADNR Class	1950	AEROSOLS	2	-		-
IMDG Class	1950	AEROSOLS	2.1	-		-
IATA Class	1950	Aerosols, flammable	2.1	-	2	-

PG\*: Packing group

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## 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, Dangerous for the environment

: R11- Highly flammable. Risk phrases

R36/38- Irritating to eyes and skin.

R67- Vapours may cause drowsiness and dizziness.

R51/53- Toxic to aquatic organisms, may cause long-term adverse effects in the

aquatic environment.

: S2- Keep out of the reach of children. Safety phrases

S23- Do not breathe [\*\*\*] S29- Do not empty into drains.

S46- If swallowed, seek medical advice immediately and show this container or label.

S51- Use only in well-ventilated areas.

S61- Avoid release to the environment. Refer to special instructions/safety data sheet.

**Contains** 

hexane, reaction mass of isomers containing < 5 % n-hexane (203-777-6) hexane, reaction mass of isomers containing < 5 % n-hexane (203-777-6) hexane, reaction mass of isomers containing < 5 % n-hexane (203-777-6)

**Product use** : Consumer applications, Used by spraying. **Europe inventory** : All components are listed or exempted.

Other EU regulations

Additional warning phrases : Pressurised container: protect from sunlight and do not expose to temperature exceeding 50°C. Do not pierce or burn, even after use. Do not spray on a naked flame or any incandescent material. Keep away from sources of ignition - No smoking. Keep out of the reach of children. Repeated exposure may cause skin dryness or cracking. Vapours may cause drowsiness and dizziness. Do not breathe spray. Use only in well-ventilated areas.

# 16. OTHER INFORMATION

**Full text of R-phrases** referred to in sections 2 and

3 - Europe

: R11- Highly flammable.

R62- Possible risk of impaired fertility.

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 swallowed.

R48/20- Harmful: danger of serious damage to health by prolonged exposure through

inhalation.

R65- Harmful: may cause lung damage if swallowed.

R36- Irritating to eyes. R38- Irritating to skin.

R36/38- Irritating to eyes and skin.

R66- Repeated exposure may cause skin dryness or cracking.

R67- Vapours may cause drowsiness and dizziness.

R51/53- Toxic to aquatic organisms, may cause long-term adverse effects in the

aquatic environment.

**Full text of classifications** referred to in sections 2 and : F - Highly flammable

Repr. Cat. 3 - Toxic to reproduction category 3

T - Toxic Xn - Harmful Xi - Irritant

N - Dangerous for the environment

**History** 

3 - Europe

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revision

Date of previous issue : No previous validation.

: 9 Version

Prepared by : Not available.

✓ Indicates information that has changed from previously issued version.

## **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.

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