

# SAFETY DATA SHEET

ES897BE Flux-Off(R) Lead-Free

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

### Identification of the substance or mixture

**Product name** : ES897BE Flux-Off(R) 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 NetherlandsTel: +31 88 1307 400  
FAX: +31 88 1307 499**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; R36/38  
R67  
N; R51/53**Physical/chemical hazards** : Highly flammable.**Human health hazards** : Irritating to eyes and skin. Vapors 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.

## 3. 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	124-38-9	5 - 10	204-696-9	Not classified. [2]
hexane, reaction mass of isomers containing < 5 % n-hexane (203-777-6)	75-83-2	1 - 10	200-906-8	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**

See Section 16 for the full text of the R-phrases declared above.				Repr. Cat. 3; R62 Xn; R48/20, R65 Xi; R38 R67 N; R51/53
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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.

## 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 pressurized 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 spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor 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 spilled 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 explosion-proof equipment. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Approach 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 spilled 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. Pressurized container: protect from sunlight and do not expose to temperatures 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 vapor 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.
- Packaging materials**
- Recommended** : Use original container.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

<u>Ingredient name</u>	<u>Occupational exposure limits</u>
acetone	<b>TRGS900 AGW (Germany, 7/2008).</b> PEAK: 2400 mg/m <sup>3</sup> 15 minute(s). PEAK: 1000 ppm 15 minute(s). TWA: 1200 mg/m <sup>3</sup> 8 hour(s). TWA: 500 ppm 8 hour(s).
hexane, reaction mass of isomers containing < 5 % n-hexane (203-777-6)	<b>TRGS900 AGW (Germany, 7/2008).</b> TWA: 720 mg/m <sup>3</sup> 8 hour(s). PEAK: 1440 mg/m <sup>3</sup> 15 minute(s). TWA: 200 ppm 8 hour(s). PEAK: 400 ppm 15 minute(s).
hexane, reaction mass of isomers containing < 5 % n-hexane (203-777-6)	<b>TRGS900 AGW (Germany, 7/2008).</b> TWA: 720 mg/m <sup>3</sup> 8 hour(s). PEAK: 1440 mg/m <sup>3</sup> 15 minute(s). TWA: 200 ppm 8 hour(s). PEAK: 400 ppm 15 minute(s).
hexane, reaction mass of isomers containing < 5 % n-hexane (203-777-6)	<b>TRGS900 AGW (Germany, 7/2008).</b> TWA: 720 mg/m <sup>3</sup> 8 hour(s). PEAK: 1440 mg/m <sup>3</sup> 15 minute(s). TWA: 200 ppm 8 hour(s). PEAK: 400 ppm 15 minute(s).
Carbon dioxide	<b>TRGS900 AGW (Germany, 7/2008).</b> PEAK: 18200 mg/m <sup>3</sup> 15 minute(s). PEAK: 10000 ppm 15 minute(s). TWA: 9100 mg/m <sup>3</sup> 8 hour(s). TWA: 5000 ppm 8 hour(s).

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

hexane, reaction mass of isomers containing < 5 % n-hexane (203-777-6)	<b>TRGS900 AGW (Germany, 7/2008).</b> TWA: 720 mg/m <sup>3</sup> 8 hour(s). PEAK: 1440 mg/m <sup>3</sup> 15 minute(s). TWA: 200 ppm 8 hour(s). PEAK: 400 ppm 15 minute(s).
methanol	<b>TRGS900 AGW (Germany, 7/2008). Absorbed through skin.</b> PEAK: 1080 mg/m <sup>3</sup> 15 minute(s). PEAK: 800 ppm 15 minute(s). TWA: 270 mg/m <sup>3</sup> 8 hour(s). TWA: 200 ppm 8 hour(s).
n-hexane	<b>TRGS900 AGW (Germany, 7/2008).</b> PEAK: 1440 mg/m <sup>3</sup> 15 minute(s). PEAK: 400 ppm 15 minute(s). TWA: 180 mg/m <sup>3</sup> 8 hour(s). TWA: 50 ppm 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. If user operations generate dust, fumes, gas, vapor 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, vapor 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 dusts.

**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. [Aerosol.]  
**Color** : Colorless.  
**Odor** : Hydrocarbon. [Slight]

**Important health, safety and environmental information**

- Boiling point** : 49°C (120.2°F)  
**Melting point** : May start to solidify at the following temperature: -94.2°C (-137.6°F) This is based on data for the following ingredient: 2-Propanone. Weighted average: -120.61°C (-185.1°F)  
**Flash point** : Closed cup: <-7°C (<19.4°F). (Tagliabue.)  
**Vapor pressure** : Highest known value: 12.9 kPa (97 mm Hg) (at 20°C) (Methanol).  
**Relative density** : 0.71 (Water = 1)  
**Vapor density** : >1 (Air = 1)

**Evaporation rate (butyl acetate = 1)** : <1 compared with butyl acetate

**Other information**

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

**10. STABILITY AND REACTIVITY**

<b>Stability</b>	: The product is stable.
<b>Conditions to avoid</b>	: Avoid all possible sources of ignition (spark or flame).
<b>Materials to avoid</b>	: No specific data.
<b>Hazardous decomposition products</b>	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

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

<b>Inhalation</b>	: Vapors may cause drowsiness and dizziness.
<b>Ingestion</b>	: Irritating to mouth, throat and stomach.
<b>Skin contact</b>	: Irritating to skin.
<b>Eye contact</b>	: Irritating to eyes.

**Acute toxicity**

Product/ingredient name	Result	Species	Dose	Exposure
2-Propanone	LD50	Rat	5500 mg/kg	-
	Intravenous			
	LD50 Oral	Rat	5800 mg/kg	-
	LDLo Dermal	Rabbit	20 mL/kg	-
	LDLo	Rat	500 mg/kg	-
	Intraperitoneal			
Carbon dioxide	TDLo Oral	Rat	5 mL/kg	-
	LC50 Inhalation Vapor	Rat	50100 mg/m3	8 hours
Methanol	LC50 Inhalation Gas.	Rat	470000 ppm	30 minutes
	LD50 Dermal	Rabbit	15800 mg/kg	-
Hexane	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 Gas.	Rat	64000 ppm	4 hours
Hexane	LD50 Oral	Rat	25 g/kg	-
	LDLo	Rat	9100 mg/kg	-
	Intraperitoneal			
	TDLo Oral	Rat	20000 mg/kg	-
	LC50 Inhalation Vapor	Rat	627000 mg/m3	3 minutes
LC50 Inhalation Gas.	Rat	48000 ppm	4 hours	

**Potential chronic health effects**

<b>Chronic effects</b>	: No known significant effects or critical hazards.
<b>Carcinogenicity</b>	: No known significant effects or critical hazards.
<b>Mutagenicity</b>	: No known significant effects or critical hazards.
<b>Teratogenicity</b>	: No known significant effects or critical hazards.
<b>Developmental effects</b>	: No known significant effects or critical hazards.
<b>Fertility effects</b>	: No known significant effects or critical hazards.

**Over-exposure signs/symptoms**

<b>Inhalation</b>	: Adverse symptoms may include the following: nausea or vomiting respiratory tract irritation coughing headache drowsiness/fatigue dizziness/vertigo
<b>Ingestion</b>	: No specific data.
<b>Skin</b>	: Adverse symptoms may include the following: irritation redness
<b>Eyes</b>	: Adverse symptoms may include the following: irritation watering redness

**11. TOXICOLOGICAL INFORMATION**

**Target organs** : Contains material which causes damage to the following organs: the nervous system, 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).

**12. ECOLOGICAL INFORMATION**

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

**Aquatic ecotoxicity**

Product/ingredient name	Test	Result	Species	Exposure
2-Propanone	-	Acute LC50 6900 mg/L Fresh water	Daphnia - Water flea - Daphnia magna	48 hours
	-	Acute LC50 5.54 to 6.33 ml/L Fresh water	Fish - Rainbow trout, donaldson trout - Oncorhynchus mykiss - 1 g	96 hours
	-	Acute LC50 13300000 ug/L Fresh water	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

## 12. ECOLOGICAL INFORMATION

	-	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 7030000 ug/L Fresh water	Fish - Fathead minnow - Pimephales promelas - 32 days - 18 mm - 0.087 g	96 hours
	-	Acute LC50 >100000 ug/L Fresh water	Fish - Fathead minnow - Pimephales promelas - Juvenile (Fledgling, Hatchling, Weanling) - 0.2 to 0.5 g	96 hours
	-	Acute LC50 10000 ug/L Fresh water	Daphnia - Water flea - Daphnia 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



**12. ECOLOGICAL INFORMATION**

	-	Acute LC50 15400000 to 17600000 ug/L Fresh water	Fish - Bluegill - Lepomis macrochirus - Juvenile (Fledgling, Hatchling, Weanling) - 3.07 g	96 hours
	-	Acute LC50 10000000 to 33000000 ug/L Marine water	Fish - Hooknose - Agonus cataphractus - Adult	96 hours
	-	Acute LC50 2500000 ug/L Marine water	Crustaceans - Common shrimp, sand shrimp - Crangon crangon - Adult	48 hours
	-	Acute LC50 >100000 ug/L Fresh water	Fish - Fathead minnow - Pimephales promelas - Juvenile (Fledgling, Hatchling, Weanling) - 0.2 to 0.5 g	96 hours
Hexane	-	Acute LC50 113000 ug/L Fresh water	Fish - Mozambique tilapia - Tilapia mossambica - 99 mm - 10 g	96 hours
	-	Acute LC50 2500 to 2980 ug/L Fresh water	Fish - Fathead minnow - Pimephales promelas - 31 days - 20.4 mm - 0.123 g	96 hours

**Conclusion/Summary** : Not available.

**Biodegradability**

**Conclusion/Summary** : Not available.

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




**AOX** : The product does not contain organically bound halogens which could lead to an AOX value in waste water.

**13. DISPOSAL CONSIDERATIONS**

**Methods of disposal** : The generation of waste should be avoided or minimized 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
<b>ADR/RID Class</b>	1950	AEROSOLS	2	-		<b>Tunnel code</b> (D)
<b>ADN/ADNR Class</b>	1950	AEROSOLS	2	-		-
<b>IMDG Class</b>	1950	AEROSOLS	2.1	-		-

**Date of issue/Date of revision** : 8/16/2011.

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**14. TRANSPORT INFORMATION**

<b>IATA Class</b>	1950	Aerosols, flammable	2.1	-		-
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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, Dangerous for the environment

Risk phrases

- : R11- Highly flammable.
- R36/38- Irritating to eyes and skin.
- R67- Vapors may cause drowsiness and dizziness.
- R51/53- Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety phrases

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

- : acetone
- 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** : Pressurized container: protect from sunlight and do not expose to temperatures 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. Vapors may cause drowsiness and dizziness. Do not breathe spray. Use only in well-ventilated areas.

Hazardous incident ordinance

- : Applicable. Category: 9b Dangerous for the environment.

Hazard class for water

- : 2 Appendix No. 4

Technical instruction on air quality control

- : TA-Luft Number 5.2.5: 46-100%
- TA-Luft Class I - Number 5.2.5: 0-3%

**16. OTHER INFORMATION**

Full text of R-phrases

referred to in sections 2 and 3 - Germany

- : 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- Vapors 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 3 - Germany

- : F - Highly flammable
- Repr. Cat. 3 - Toxic to reproduction category 3
- T - Toxic
- Xn - Harmful
- Xi - Irritant
- N - Dangerous for the environment

**History**

Date of printing

- : 8/16/2011.

Date of issue/Date of revision

- : 8/16/2011.

Date of previous issue

- : No previous validation.

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- : 8/16/2011.

## 16. OTHER INFORMATION

**Version** : 3  
**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.