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G5 : 9HM85H5 `G<99H

Sersolv® HC)

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Ü^çã } ÄÖæ^Ä-BÍ BDEFÍ

Product Use : Cleaning agent, For professional users only.

Restrictions on use : Do not use product for anything outside of the above specified uses

Manufacturer : ÜÖÜXÖÖÄPQ Ö
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Medical Emergency : ÜÖÖÖÖÖÖÖÖÖÖÖ ÖÖÖÖÖÖÖÖÖÖÖÖ

SECTION 2. HAZARDS IDENTIFICATION

Product hazard category
 Serious eye damage/eye irritation Category 2B
 Specific target organ toxicity - single exposure Category 3

Label content

Pictogram :



Signal word : Warning

Hazardous warnings : Causes eye irritation.
 May cause respiratory irritation.
 May cause drowsiness or dizziness.

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Hazardous prevention measures : Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
Wash skin thoroughly after handling.
Use only outdoors or in a well-ventilated area.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Call a POISON CENTER or doctor/ physician if you feel unwell.
If eye irritation persists: Get medical advice/ attention.
Store in a well-ventilated place. Keep container tightly closed.
Store locked up.
Dispose of contents/ container to an approved waste disposal plant.

Other hazards

Vapours are heavier than air and can cause suffocation by reducing oxygen available for breathing., Misuse or intentional inhalation abuse may cause death without warning symptoms, due to cardiac effects.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS-No.	Concentration
The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.		
trans-Dichloroethylene	156-60-5	80 - 98 %
Proprietary Fluorocarbon		2 - 20 %

SECTION 4. FIRST AID MEASURES

General advice : Never give anything by mouth to an unconscious person. Victim to lie down in the recovery position, cover and keep him warm. Give oxygen or artificial respiration if needed. When symptoms persist or in all cases of doubt seek medical advice.

Inhalation : Remove from exposure, lie down. Move to fresh air. Keep patient warm and at rest. Artificial respiration and/or oxygen may be necessary. Consult a physician.

Skin contact : Take off all contaminated clothing immediately. Wash off with warm water.

Eye contact : In case of eye contact
Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes.
Get medical attention.

Ingestion : Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Drink 1 or 2 glasses of water. If vomiting occurs, have victim lean forward to reduce the risk of aspiration. Consult a physician.

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- Most important symptoms/effects, acute and delayed : Anaesthetic effects Light-headedness irregular heartbeat with a strange sensation in the chest, heart thumping, apprehension, feeling of fainting, dizziness or weakness
- Protection of first-aiders : If potential for exposure exists refer to Section 8 for specific personal protective equipment.
- Notes to physician : Do not give adrenaline or similar drugs. Because of possible disturbances of cardiac rhythm, catecholamine drugs, such as epinephrine, that may be used in situations of emergency life support should be used with special caution.

SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Water spray, Water mist, Dry chemical, Carbon dioxide (CO2)
- Unsuitable extinguishing media : No applicable data available.
- Specific hazards : Fire or intense heat may cause violent rupture of packages. The product is not flammable. Vapours may form flammable mixture with air. Hazardous combustion products: Hydrogen fluoride Fluorinated hydrocarbons Carbonyl fluoride Carbon oxides Hydrogen chloride
- Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment. Wear neoprene gloves during cleaning up work after a fire. Exposure to decomposition products may be a hazard to health.
- Further information : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Evacuate personnel to safe areas. Cool containers/tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

SECTION 6. ACCIDENTAL RELEASE MEASURES

NOTE: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

- Safeguards (Personnel) : Evacuate personnel to safe areas. Ventilate area, especially low or enclosed places where heavy vapours might collect. In case of insufficient ventilation, wear suitable respiratory equipment. Refer to protective measures listed in sections 7 and 8.
- Environmental precautions : Prevent further leakage or spillage. Prevent spreading over a wide area (e.g. by containment or oil barriers). Do not allow contact with soil, surface or ground water. Prevent material from entering sewers, waterways, or low areas.
- Spill Cleanup : Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).
- Accidental Release Measures : No applicable data available.

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SECTION 7. HANDLING AND STORAGE

- Handling (Personnel) : Avoid contact with skin, eyes and clothing. Avoid breathing vapours or mist. Provide sufficient air exchange and/or exhaust in work rooms. For personal protection see section 8.
Handle in accordance with good industrial hygiene and safety practice. When using do not eat, drink or smoke. Do not breathe vapours or spray mist. Wash hands before breaks and immediately after handling the product.
- Handling (Physical Aspects) : Material should not be dispensed by pouring from pail/drum shipping containers containing 5 gallons or more. The use of a drum pump is recommended for dispensing from pail/drum shipping containers with 5 gallons or more, except for smaller containers where adequate ventilation can be used to manage the exposure.
- Dust explosion class : Not applicable
- Storage : Protect from contamination. Drainage facilities should be constructed for containment of small spills. Keep container tightly closed in a dry and well-ventilated place. Store in original container. Avoid freezing temperatures. If stored below -10°C (14°F), mix prior to use.
Protect from contamination. To prevent leaks or spillages from spreading, provide a suitable liquid retention system. Keep container tightly closed in a dry and well-ventilated place. Store in original container. Avoid freezing temperatures. If stored below -10°C (14°F), mix prior to use.
- Storage period : No applicable data available.
- Storage temperature : < 52 °C (< 126 °F)

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

- Engineering controls : Use sufficient ventilation to keep employee exposure below recommended limits.
- Personal protective equipment
- Respiratory protection : For rescue and maintenance work in storage tanks use self-contained breathing apparatus. Vapours are heavier than air and can cause suffocation by reducing oxygen available for breathing.
- Hand protection : Material: Solvent-resistant gloves
- Hand protection : Material: Neoprene
- Hand protection : Material: Viton[®]
Glove thickness: 0.7 mm
Wearing time: 120 min
- Eye protection : Safety glasses with side-shields Additionally wear a face shield where the possibility exists for face contact due to splashing, spraying or airborne contact with this material.

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Skin and body protection : Where there is potential for skin contact, have available and wear as appropriate, impervious gloves, apron, pants, jacket, hood and boots.

Exposure Guidelines Exposure Limit Values

trans-Dichloroethylene				
Permissible exposure limit:	(OSHA)	200 ppm	790 mg/m3	8 hr. TWA
TLV	(ACGIH)	200 ppm	TWA	

Proprietary Fluorocarbon
No applicable data available.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Physical state : liquid
Form : liquid
Color : clear, colourless

Odor : slight

Odor threshold : No applicable data available.

pH : 5 - 7

Melting point/freezing point : Freezing point
-50 °C (-58 °F)

Boiling point/boiling range : Boiling point
47 °C (117 °F)

Flash point : Tag closed cup

Method: ASTM D 56
does not flash

Evaporation rate : 8
(Butyl Acetate=1.0)

Flammability (solid, gas) : Not applicable

Upper explosion limit : 15.25 vol%
Method: ASTM E681

Lower explosion limit : 7.25 vol%
Method: ASTM E681

Vapor pressure : 44.7 kPa

Vapor density : 1.81

Density : 1.29 g/cm3 at 25 °C (77 °F)

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Specific gravity (Relative density)	: 1.29
Water solubility	: No applicable data available.
Solubility(ies)	: No applicable data available.
Partition coefficient: n-octanol/water	: No applicable data available.
Auto-ignition temperature	: No applicable data available.
Decomposition temperature	: No applicable data available.
Viscosity, kinematic	: 0.42 mm ² /s
Viscosity, dynamic	: 0.42 mPa.s

SECTION 10. STABILITY AND REACTIVITY

Reactivity	: Stable at normal ambient temperature and pressure.
Chemical stability	: The product is chemically stable. No decomposition if stored and applied as directed. No decomposition if stored and applied as directed.
Possibility of hazardous reactions	: No applicable data available.
Conditions to avoid	: Avoid open flames and high temperatures.
Incompatible materials	: Alkali metals Alkaline earth metals, Powdered metals, Powdered metal salts, Strong bases
Hazardous decomposition products	: Hazardous decomposition products formed under fire conditions.: Fluorinated hydrocarbons, Hydrogen fluoride, Carbon dioxide (CO ₂), Carbon monoxide

SECTION 11. TOXICOLOGICAL INFORMATION

Opteon™ Sion specialty fluid Inhalation 4 h LC50	: 140 mg/l , male and female, Rat
trans-Dichloroethylene Dermal LD50	: > 5,000 mg/kg , Rabbit
Oral LD50	: 7,902 mg/kg , Rat Target Organs: Central nervous system Central nervous system effects Respiratory effects
Skin irritation	: Mild skin irritation, Rabbit
Eye irritation	: Irritation to eyes, reversing within 7 days, Rabbit
Repeated dose toxicity	: Inhalation Rat - 90 d gas NOAEL: 4000, Method: OECD Test Guideline 413 No toxicologically significant effects were found.

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- Mutagenicity : Animal testing did not show any mutagenic effects.
Tests on bacterial or mammalian cell cultures did not show mutagenic effects.
- Teratogenicity : Animal testing showed effects on embryo-fetal development at levels equal to or above those causing maternal toxicity.
- Further information : Cardiac sensitisation threshold limit : 793047 mg/m3
- Proprietary Fluorocarbon
Dermal LD50 : > 5,000 mg/kg , Rat
- Oral LD50 : > 5,000 mg/kg , Rat
- Skin irritation : No skin irritation, Rabbit
- Eye irritation : No eye irritation, Rabbit
- Skin sensitization : Does not cause skin sensitisation., Mouse
- Repeated dose toxicity : Oral - gavage
Rat
- 28 d
NOAEL: 1,000 mg/kg Method: OECD Test Guideline 407
No toxicologically significant effects were found.
- Oral - gavage
Rat
- 90 d
NOAEL: 1,000 mg/kg
No toxicologically significant effects were found.
- Inhalation
Rat
- 28 d
NOAEL: 5100 ppm,
No toxicologically significant effects were found.
- Mutagenicity : Animal testing did not show any mutagenic effects.
Tests on bacterial or mammalian cell cultures did not show mutagenic effects.
- Teratogenicity : Animal testing showed no developmental toxicity.

Carcinogenicity

The carcinogenicity classifications for this product and/or its ingredients have been determined according to HazCom 2012, Appendix A.6. The classifications may differ from those listed in the National Toxicology Program (NTP) Report on Carcinogens (latest edition) or those found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs (latest edition).

None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, or OSHA, as a carcinogen.

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SECTION 12. ECOLOGICAL INFORMATION

Aquatic Toxicity

trans-Dichloroethylene

- 96 h LC50 : Lepomis macrochirus (Bluegill sunfish) 135 mg/l
72 h EC50 : Pseudokirchneriella subcapitata (green algae) 36.36 mg/l
48 h EC50 : Daphnia magna (Water flea) 220 mg/l

Proprietary Fluorocarbon

- 96 h LC50 : Oryzias latipes (Orange-red killifish) > 0.096 mg/l
No acute toxicity effects at concentrations up to the limit of aqueous solubility
72 h EC50 : Pseudokirchneriella subcapitata (green algae) > 0.000477 mg/l
No acute toxicity effects at concentrations up to the limit of aqueous solubility
48 h EC50 : Daphnia magna (Water flea) > 0.157 mg/l
No acute toxicity effects at concentrations up to the limit of aqueous solubility
Respiration inhibition : EC50 > 1000 ppm
21 d : NOEC Daphnia magna (Water flea) 0.107 mg/l OECD Test Guideline 211
No chronic toxicity effects were observed at concentrations up to the limit of aqueous solubility.

Environmental Fate

Proprietary Fluorocarbon

- Biodegradability : 39.5 % OECD Test Guideline 302
Inherently biodegradable.
Bioaccumulation : Cyprinus carpio (Carp)
Bioconcentration factor (BCF) : 1,990
The substance has the potential to bioaccumulate.

SECTION 13. DISPOSAL CONSIDERATIONS

- Waste disposal methods - Product : Can be used after re-conditioning. If recycling is not practicable, dispose of in compliance with local regulations. The product should not be allowed to enter drains, water courses or the soil.
Contaminated packaging : If recycling is not practicable, dispose of in compliance with local regulations.

SECTION 14. TRANSPORT INFORMATION

Not classified as dangerous in the meaning of transport regulations.

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SECTION 15. REGULATORY INFORMATION

TSCA	: Listed
SARA 313 Regulated Chemical(s)	: trans-Dichloroethylene
PA Right to Know Regulated Chemical(s)	: Substances on the Pennsylvania Hazardous Substances List present at a concentration of 1% or more (0.01% for Special Hazardous Substances): trans-Dichloroethylene
NJ Right to Know Regulated Chemical(s)	: Substances on the New Jersey Workplace Hazardous Substance List present at a concentration of 1% or more (0.1% for substances identified as carcinogens, mutagens or teratogens): trans-Dichloroethylene
CERCLA Reportable Quantity	: 1046 lbs Based on the percentage composition of this chemical in the product.: trans-Dichloroethylene
California Prop. 65	: Chemicals known to the State of California to cause cancer, birth defects or any other harm: none known

SECTION 16. OTHER INFORMATION

Revision Date : 03/16/2016

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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