

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03.

Issue date 06/09/2018

Reviewed on 06/09/2018

1 Identification

- **Product Identifier**
- **Trade Name:** FLUOSOLV CX-500
- **Product Number:** FX-CX500
- **Relevant identified uses of the substance or mixture and uses advised against:**
Specialty Fluorinated Solvent Blend
- **Product Description:** Vapor Degreasing Solvent Blend
- **Application of the substance / the mixture:** Defluxing and degreasing solvent for vapor-degreaser
- **Details of the Supplier of the Safety Data Sheet:**
- **Manufacturer/Supplier:**
NuGeneration Technologies, LLC (dba NuGenTec)
1155 Park Ave, Emeryville, CA 94608
fluosolv@nugentec.com
For Product Info call 1-(800) 409-3142
www.fluosolv.com
www.nugentec.com/fluosolv
- **Emergency telephone number:**
PERS Emergency Response: Domestic and Canada - 1-800-633-8253, International 1-801-629-0667

2 Hazard(s) Identification

- **Classification of the substance or mixture:**
Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.
- **Label elements:**
- **GHS label elements**
The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms:** Non-Regulated Material
- **Signal word:** Non-Regulated Material
- **Hazard statements:**
H412 Harmful to aquatic life with long lasting effects.
- **Precautionary statements:**
P273 Avoid release to the environment.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
- **Unknown acute toxicity:**
This value refers to knowledge of known, established toxicological or ecotoxicological values.
0 % of the mixture consists of component(s) of unknown toxicity.
- **Classification system:** NFPA/HMIS Definitions: 0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme
- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**



(Contd. on page 2)

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· **Hazard(s) not otherwise classified (HNOC):** None

3 Composition/Information on Ingredients

· **Non-hazardous components:**

Proprietary Fluorinated Fluid	>60%
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· **Chemical characterization: Mixtures**

· **Description:** Mixture of substances listed below with non-hazardous additions.

· **Dangerous Components:**

CAS: 156-60-5	trans-dichloroethylene	<40%
RTECS: KV 9400000	 Flam. Liq. 2, H225;  Acute Tox. 4, H332; Aquatic Chronic 3, H412	

· **Additional information:**

The exact percentages of the ingredients of this mixture are considered to be proprietary and are withheld in accordance with the provisions of paragraph (i) of §1910.1200 of 29 CFR 1910.1200 Trade Secrets.

4 First-Aid Measures

· **Description of first aid measures**

· **General information:**

Take affected persons out of danger area and lay down.

Symptoms of poisoning may occur after exposure to dust, fumes or particulates; seek medical attention if feeling unwell.

· **After inhalation:**

Consult a doctor for complaints.

Supply fresh air. If required, provide artificial respiration. Consult doctor if symptoms persist.

In case of unconsciousness place patient stably in side position for transportation.

· **After skin contact:** If skin irritation occurs, consult a doctor.

· **After eye contact:**

Rinse opened eye for several minutes under running water.

If eye irritation occurs, consult a doctor.

· **After swallowing:** If swallowed and symptoms occur, consult a doctor.

· **Information for doctor**

· **Most important symptoms and effects, both acute and delayed:** Breathing difficulty

· **Indication of any immediate medical attention and special treatment needed:**

Do not administer preparations of the adrenalin-ephedrine-group.

5 Fire-Fighting Measures

· **Extinguishing media**

· **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.

· **For safety reasons unsuitable extinguishing agents:** No further relevant information.

· **Special hazards arising from the substance or mixture:** No further relevant information available.

· **Advice for firefighters**

· **Special protective equipment for firefighters:**

Mouth respiratory protective device.

(Contd. on page 3)

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As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent) and full protective gear to prevent contact with skin and eyes.

6 Accidental Release Measures

- **Personal precautions, protective equipment and emergency procedures:** Not required.
- **Environmental precautions:**
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/surface or ground water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (i.e. sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to section 13.
Ensure adequate ventilation.
Dispose of the collected material according to regulations.
- **Reference to other sections:**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.
- **Protective Action Criteria for Chemicals**

· PAC-1:		
156-60-5	trans-dichloroethylene	280 ppm
· PAC-2:		
156-60-5	trans-dichloroethylene	1,000 ppm
· PAC-3:		
156-60-5	trans-dichloroethylene	1,700 ppm

7 Handling and Storage

- **Handling**
- **Precautions for safe handling:**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:** Store in a cool, dry place.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **Specific end use(s):** No further relevant information available.

8 Exposure Controls/Personal Protection

- **Additional information about design of technical systems:** No further data; see section 7.

(Contd. on page 4)

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OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03.

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· **Control parameters:**

· **Components with occupational exposure limits:**

156-60-5 trans-dichloroethylene

PEL Long-term value: 790 mg/m³, 200 ppm

REL Long-term value: 790 mg/m³, 200 ppm

TLV Long-term value: 793 mg/m³, 200 ppm

Fluosolv CX-500 (Calculated Allowable Exposure Limits)

AEL 776 ppm

· **Additional information:** The lists that were valid during the creation of this SDS were used as basis.

· **Exposure controls:**

· **Personal protective equipment**

· **General protective and hygienic measures:**

The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed.

Wash hands before breaks and at the end of work.

· **Breathing equipment:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure, use respiratory protective device that is independent of circulating air.

Use suitable respiratory protective device in case of insufficient ventilation.

· **Protection of hands:** Not required.

· **Material of gloves:** Not applicable.

· **Penetration time of glove material:** Not applicable.

· **Eye protection:**



Goggles recommended during refilling.

· **Limitation and supervision of exposure into the environment:**

Keep away from drains, surface and ground waters.

Avoid release into the environment.

9 Physical and Chemical Properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form: Liquid

Color: Colorless

· **Odour:** Weak, characteristic

· **Odor threshold:** Not determined.

· **pH-value:** not applicable

· **Change in condition**

· **Melting point/Melting range:** not applicable

· **Boiling point/Boiling range:** 39 °C (102.2 °F)

(Contd. on page 5)

US

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· Flash point:	None
· Flammability (solid, gaseous):	Not applicable.
· Ignition temperature:	Not applicable
· Decomposition temperature:	Nat Applicable
· Auto igniting:	Product is not self-igniting.
· Danger of explosion:	Product does not present an explosion hazard.
· Explosion limits:	
Lower:	5.4 Vol %
Upper:	9.4 Vol %
· Vapor pressure @ 20 °C (68 °F):	693 hPa (519.8 mm Hg)
· Density @ 20 °C (68 °F):	1.23 g/cm ³ (10.2644 lbs/gal)
· Relative density:	Not determined.
· Vapor density:	Not determined.
· Evaporation rate:	Not determined.
· Solubility in / Miscibility with:	
Water @ 20 °C (68 °F):	100 ppm (max)
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
Dynamic @ 20 °C (68 °F):	0.46 mPas
Kinematic:	Not determined.
· Solvent content:	
VOC content:	388 g/l (per SCAQMD methodology) 300.0 g/l / 2.50 lb/gl
· Other information:	No further relevant information available.

10 Stability and Reactivity

- **Reactivity:** No further relevant information available.
- **Chemical stability:** Stable under normal conditions.
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
- **Possibility of hazardous reactions:** No dangerous reactions known.
- **Conditions to avoid:** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

US

(Contd. on page 6)

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11 Toxicological Information

· **Information on toxicological effects:**

· **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**

156-60-5 trans-dichloroethylene

Oral LD50 770 mg/kg (Rat)

· **Primary irritant effect:**

· **On the skin:** No irritating effect.

· **On the eye:** Mild irritant effect.

· **Additional toxicological information:**

There is no data available for this product

The product shows the following dangers according to internally approved calculation methods for preparations:

· **Carcinogenic categories:**

· **IARC (International Agency for Research on Cancer):**

None of the ingredients are listed.

· **NTP (National Toxicology Program):**

None of the ingredients are listed.

· **OSHA-Ca (Occupational Safety & Health Administration):**

None of the ingredients are listed.

12 Ecological Information

· **Toxicity:**

· **Aquatic toxicity:**

Avoid release into the environment. Runoff from fire control or dilution water may cause pollution.

· **Persistence and degradability:** No further relevant information available.

· **Behavior in environmental systems:**

· **Bioaccumulative potential:** No further relevant information available.

· **Mobility in soil:** No further relevant information available.

· **Ecotoxicological effects:**

· **Remark:** Harmful to fish

· **Additional ecological information:**

· **General notes:**

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

Harmful to aquatic organisms

· **Results of PBT and vPvB assessment:**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

· **Other adverse effects:** No further relevant information available.

US

(Contd. on page 7)

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13 Disposal Considerations

- **Waste treatment methods**
- **Recommendation:**
 Contact manufacturer for recycling information.
 Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
 Observe all federal, state and local environmental regulations when disposing of this material.
- **Uncleaned packaging**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport Information

· UN-Number:	
· DOT, ADR/ADN, ADN, IMDG, IATA	Non-Regulated Material
· UN proper shipping name:	
· DOT, ADR/ADN, ADN, IMDG, IATA	Non-Regulated Material
· Transport hazard class(es):	
· DOT, ADR/ADN, ADN, IMDG, IATA	
· Class:	Non-Regulated Material
· Packing group:	
· DOT, ADR/ADN, IMDG, IATA	Non-Regulated Material
· Environmental hazards:	Not applicable.
· Special precautions for user:	Not applicable.
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:	Not applicable.
· UN "Model Regulation":	Non-Regulated Material

15 Regulatory Information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture:**
- **SARA (Superfund Amendments and Reauthorization):**

- **Section 355 (extremely hazardous substances):**

None of the ingredients are listed.

- **Section 313 (Specific toxic chemical listings):**

None of the ingredients are listed.

- **TSCA (Toxic Substances Control Act):**

156-60-5 trans-dichloroethylene

- **California Proposition 65:**

- **Chemicals known to cause cancer:**

None of the ingredients are listed.

(Contd. on page 8)

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· Chemicals known to cause reproductive toxicity for females:

None of the ingredients are listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients are listed.

· Chemicals known to cause developmental toxicity:

None of the ingredients are listed.

· New Jersey Right-to-Know List:

None of the ingredients are listed.

· New Jersey Special Hazardous Substance List:

None of the ingredients are listed.

· Pennsylvania Right-to-Know List:

156-60-5 trans-dichloroethylene

· Pennsylvania Special Hazardous Substance List:

156-60-5 trans-dichloroethylene

E

· Carcinogenic categories:

· EPA (Environmental Protection Agency):

156-60-5 trans-dichloroethylene

II

· TLV (Threshold Limit Value established by ACGIH):

None of the ingredients are listed.

· NIOSH-Ca (National Institute for Occupational Safety and Health):

None of the ingredients are listed.

· GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

· Hazard pictograms: Non-Regulated Material

· Signal word: Non-Regulated Material

· Hazard statements:

H412 Harmful to aquatic life with long lasting effects.

· Precautionary statements:

P273 Avoid release to the environment.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· National regulations:

None of the ingredients are listed.

· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other Information

The information and recommendations in this safety data sheet are, to the best of our knowledge, accurate as of the date of issue. Nothing herein shall be deemed to create warranty, expressed or implied, and shall not establish a legally valid contractual relationship. It is the responsibility of the user to determine applicability of this information and the suitability of the material or product for any particular purpose.

· Date of preparation / last revision: 06/09/2018 / 1

(Contd. on page 9)

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· Abbreviations and acronyms:

- ADR: The European Agreement concerning the International Carriage of Dangerous Goods by Road
- ADN: The European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
- IMDG: International Maritime Code for Dangerous Goods
- DOT: US Department of Transportation
- IATA: International Air Transport Association
- ACGIH: American Conference of Governmental Industrial Hygienists
- EINECS: European Inventory of Existing Commercial Chemical Substances
- ELINCS: European List of Notified Chemical Substances
- CAS: Chemical Abstracts Service (division of the American Chemical Society)
- NFPA: National Fire Protection Association (USA)
- HMIS: Hazardous Materials Identification System (USA)
- VOC: Volatile Organic Compounds (USA, EU)
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent
- PBT: Persistent, Bioaccumulative and Toxic
- vPvB: very Persistent and very Bioaccumulative
- NIOSH: National Institute for Occupational Safety and Health
- OSHA: Occupational Safety & Health Administration
- TLV: Threshold Limit Value
- PEL: Permissible Exposure Limit
- REL: Recommended Exposure Limit
- Flam. Liq. 2: Flammable liquids – Category 2
- Acute Tox. 4: Acute toxicity – Category 4
- Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

· * Data compared to the previous version altered.

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