

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 04/28/2023

Reviewed on 04/28/2023

1 Identification

· **Product Identifier**

· **Trade Name:** FluoSolv Eleven-X

· **Product Number:** FX-ElevenX

· **Relevant identified uses of the substance or mixture and uses advised against:**

For professional use only

· **Product Description:** Injection Molding Cleaning Solvent.

· **Application of the substance / the mixture:**

Injection Molding Cleaning - For use on hot molds during inline cleaning, and on cold molds during offline cleaning.

· **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: US and Canada - 1-800-633-8253, International 1-801-629-0667

2 Hazard(s) Identification

· **Classification of the substance or mixture:**



Acute Toxicity - Oral 4 H302 Harmful if swallowed.

Acute Toxicity - Inhalation 4 H332 Harmful if inhaled.

· **Label elements:**

· **Hazard pictograms:**



· **Signal word:** Warning

· **Hazard-determining components of labeling:**

trans-dichloroethylene

· **Hazard statements:**

H302+H332 Harmful if swallowed or if inhaled.

· **Precautionary statements:**

P261 Avoid breathing dust/fume/gas/mist/vapors/spray.

P264 Wash thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P271 Use only outdoors or in a well-ventilated area.

P301+P312 If swallowed: Call a poison center/doctor if you feel unwell.

(Contd. on page 2)

US

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 04/28/2023

Reviewed on 04/28/2023

Trade Name: FluoSolv Eleven-X

P330 Rinse mouth.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
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.

· **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)**



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

3 Composition/Information on Ingredients

· **Non-hazardous components:**

Proprietary Fluorinated Fluid	Proprietary%
Proprietary Fluorinated Fluid	Proprietary%

· **Chemical characterization: Substance**

· **Description:** Mixture: consisting of the following components.

· **Dangerous Components:**

CAS: 156-60-5	trans-dichloroethylene	Proprietary%
RTECS: KV 9400000	⚠ Flammable Liquids 2, H225; ⚠ Acute Toxicity - Inhalation 4, H332	

· **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 into the fresh air.

· **After inhalation:**

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

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

· **After skin contact:**

Generally, the product does not irritate the skin.

(Contd. on page 3)

US

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 04/28/2023

Reviewed on 04/28/2023

Trade Name: FluoSolv Eleven-X

Wash with soap and water.

If skin irritation occurs, consult a doctor.

· **After eye contact:**

Rinse opened eye for at least 15 minutes under running water. If symptoms persist, consult a doctor.

· **After swallowing:**

Rinse out mouth and then drink plenty of water.

Do not induce vomiting without medical advice.

If vomiting does occur, repeat fluid administration

· **Information for doctor**

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

No further relevant information available.

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

No further relevant information available.

5 Fire-Fighting Measures

· **Extinguishing media**

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

· **For safety reasons unsuitable extinguishing agents:** Water with full jet

· **Special hazards arising from the substance or mixture:**

Thermal decomposition can lead to the release of irritating gases and vapor.

If incinerated, product will release the following toxic fumes: Oxides of Carbon, Hydrogen Chloride gas and Hydrogen Fluoride gas.

· **Advice for firefighters** Use water spray to cool unopened containers.

· **Special protective equipment for firefighters:**

Mouth respiratory protective device.

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:**

Mount respiratory protective device.

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation.

Keep people at a distance and stay upwind.

Keep away from ignition sources

Do not breathe vapor.

Avoid contact with skin, eyes and clothing.

· **Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (i.e. sand, diatomite, acid binders, universal binders, sawdust).

Dispose of 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.

(Contd. on page 4)

US

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 04/28/2023

Reviewed on 04/28/2023

Trade Name: FluoSolv Eleven-X

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

· **PAC-1:**

· **PAC-2:**

· **PAC-3:**

None of the ingredients are listed.

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:**

Protect against electrostatic charges.

Keep ignition sources away - Do not smoke.

Fumes can combine with air to form an explosive mixture.

· **Conditions for safe storage, including any incompatibilities**

Store away from strong oxidizing agents and strong bases.

· **Storage**

· **Requirements to be met by storerooms and receptacles:** No special requirements.

· **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.

· **Control parameters:**

All ventilation should be designed in accordance with OSHA standard (29 CFR 1910.94). Use mechanical (general) ventilation for storage areas. Use appropriate ventilation as required to keep Exposure Limits in Air below TLV & PEL limits.

· **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

· **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.

(Contd. on page 5)

US

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 04/28/2023

Reviewed on 04/28/2023

Trade Name: FluoSolv Eleven-X

Keep away from foodstuffs, beverages and feed.
Wash hands before breaks and at the end of work.

· **Breathing equipment:**



Suitable respiratory protective device recommended.

· **Protection of hands:**



Protective gloves

· **Material of gloves:**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material:**

The exact break-through time has to be determined and observed by the manufacturer of the protective gloves.

· **Eye protection:**



Goggles recommended during refilling.

· **Body protection:** Not required.

9 Physical and Chemical Properties

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

· **General Information**

· **Appearance:**

Form:

Liquid

Color:

Colorless

· **Odor:**

Weak, characteristic

· **Odor threshold:**

Not determined.

· **pH-value:**

Not applicable.

· **Change in condition**

Melting point/Melting range:

Not determined.

Boiling point/Boiling range:

47-53 °C (116.6-127.4 °F)

· **Flash point:**

None

· **Flammability (solid, gaseous):**

Not applicable.

(Contd. on page 6)

US

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 04/28/2023

Reviewed on 04/28/2023

Trade Name: FluoSolv Eleven-X

· Auto igniting:	Not applicable
· Decomposition temperature:	≥ 200 deg C (392 deg F)
· Ignition temperature:	Product is not self-igniting.
· Danger of explosion:	Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
· Explosion limits: Lower: Upper:	≥7 Vol % ≤15 Vol %
· Vapor pressure @ 20 °C (68 °F):	≤350 hPa (≤262.5 mm Hg)
· Density @ 20 °C (68 °F):	1.270 g/cm ³ (10.5982 lbs/gal)
· Relative density:	Not determined.
· Vapor density:	3.1 (Air=1)
· Evaporation rate:	<1 (n-Butyl Acetate =1)
· Solubility in / Miscibility with: Water:	Not miscible or difficult to mix.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity: Dynamic: Kinematic:	Not determined. Not determined.
· Solvent content: VOC content:	1200 g/l
· 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:** Strong oxidizing agents and strong bases.
- **Hazardous decomposition products:**
Carbon Oxides, Hydrogen Chloride gas and Hydrogen Fluoride gas.

US

(Contd. on page 7)

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 04/28/2023

Reviewed on 04/28/2023

Trade Name: FluoSolv Eleven-X

11 Toxicological Information

· **Information on toxicological effects:**

· **Acute toxicity:**

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

156-60-5 trans-dichloroethylene

Oral	LD50	7,902 mg/kg (Rat)
Dermal	LD50	>5,000 mg/kg (Rabbit)
Inhalative	LC50/4 h	95.4 mg/l (Rat)

· **Primary irritant effect:**

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

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

· **Additional toxicological information:**

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

Harmful

· **Carcinogenic categories:**

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

Group 1 - Carcinogenic to humans

Group 2A - Probably carcinogenic to humans

Group 2B - Possibly carcinogenic to humans

Group 3 - Not classifiable as to its carcinogenicity to humans

Group 4 - Probably not carcinogenic to humans

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:** The hazards for the aquatic environment are unknown.

· **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

(Contd. on page 8)

US

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 04/28/2023

Reviewed on 04/28/2023

Trade Name: FluoSolv Eleven-X

· **Additional ecological information:**

· **General notes:**

Do not allow undiluted product or product that has not been neutralized to reach ground water, water course or sewage system.

Harmful to aquatic organisms

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

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

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

13 Disposal Considerations

· **Waste treatment methods**

· **Recommendation:**

Must not be disposed of together with household waste. Do not allow product to reach sewage system. Observe all federal, state and local environmental regulations when disposing of this material.

· **Uncleaned packaging**

· **Recommendation:** Dispose of as unused product.

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:**

No further relevant information available.

(Contd. on page 9)

US

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 04/28/2023

Reviewed on 04/28/2023

Trade Name: FluoSolv Eleven-X

· **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

Proprietary Fluorinated Fluid

· **California Proposition 65:**

· **Chemicals known to cause cancer:**

None of the ingredients are listed.

· **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:**



(Contd. on page 10)

US

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 04/28/2023

Reviewed on 04/28/2023

Trade Name: FluoSolv Eleven-X

- **Signal word:** Warning
- **Hazard-determining components of labeling:**
trans-dichloroethylene
- **Hazard statements:**
H302+H332 Harmful if swallowed or if inhaled.
- **Precautionary statements:**
 - P261 Avoid breathing dust/fume/gas/mist/vapors/spray.*
 - P264 Wash thoroughly after handling.*
 - P270 Do not eat, drink or smoke when using this product.*
 - P271 Use only outdoors or in a well-ventilated area.*
 - P301+P312 If swallowed: Call a poison center/doctor if you feel unwell.*
 - P330 Rinse mouth.*
 - P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.*
 - P501 Dispose of contents/container in accordance with local/regional/national/international regulations.*
- **National regulations:**
 - The product is not subject to be labelled according with the prevailing version of the regulations on hazardous substances.*
- **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.

- **Contact:**
- **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*
 - 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*
 - Flammable Liquids 2: Flammable liquids – Category 2*

(Contd. on page 11)

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev
03.

Issue date 04/28/2023

Reviewed on 04/28/2023

Trade Name: FluoSolv Eleven-X

Acute Toxicity - Inhalation 4: Acute toxicity – Category 4

*** Data compared to the previous version altered.**

SDS created by MSDS Authoring Services www.msdsauthoring.com +1-877-204-9106

US