

Safety Data Sheet (SDS)

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

Issue date 10/24/2015

Reviewed on 10/24/2015

* 1 Identification

· **Product Identifier**

· **Trade name: NuFlo CSI-2**

· **Product Number:** ofc-csi2

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

· **Product Description** PC14 Metal surface treatment products, including galvanic and electroplating products

· **Details of the Supplier of the Safety Data Sheet:**

· **Manufacturer/Supplier:**

NuGenTec Oilfield Chemicals

1155 Park Avenue, Emeryville, CA 94608

ofcadmin@nugentec.com

888-996-8436 or 707-891-3012 for product information

www.nugentec.com/oilfield

· **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:**



GHS08 Health hazard

Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.



GHS05 Corrosion

Skin Corr. 1C H314 Causes severe skin burns and eye damage.

Eye Dam. 1 H318 Causes serious eye damage.

· **Label elements:**

· **GHS label elements**

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

· **Hazard pictograms:**



GHS05 GHS08

· **Signal word:** Danger

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

Solvent naphtha (petroleum), medium aliph.
sodium 4(or 5)-methyl-1H-benzotriazolide

· **Hazard statements:**

Causes severe skin burns and eye damage.

May be fatal if swallowed and enters airways.

· **Precautionary statements:**

Do not breathe dusts or mists.

Wear eye protection / face protection.

Wash thoroughly after handling.

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

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If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Specific treatment (see supplementary first aid instructions on this Safety Data Sheet).

IF SWALLOWED: Immediately call a POISON CENTER/ doctor.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Wash contaminated clothing before reuse.

If swallowed: Rinse mouth. Do NOT induce vomiting.

Store locked up.

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

· **Unknown acute toxicity:**

30 % of the mixture consists of component(s) of unknown toxicity.

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



· **HMS-ratings (scale 0 - 4)**



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

* 3 Composition/Information on Ingredients

	Solvent naphtha (petroleum), medium aliph. ⚠ Flam. Liq. 3, H226; ⚠ Asp. Tox. 1, H304	60-90%
CAS: 1984-06-1 RTECS: RH 0787000	sodium octanoate ⚠ Skin Irrit. 2, H315	15-35%
	Proprietary Blend of Polymers and Polyacrylates	5-10%
CAS: 64665-57-2	sodium 4(or 5)-methyl-1H-benzotriazolide ⚠ Skin Corr. 1C, H314; ⚠ Eye Dam. 1, H318; ⚠ Acute Tox. 4, H302	2-12%

· **Chemical characterization: Mixtures**

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

· **Dangerous Components:** Non-Regulated Material

* 4 First-Aid Measures

· **Description of first aid measures:**

· **General information:** Immediately remove any clothing soiled by the product.

· **After inhalation:** In case of unconsciousness place patient stably in side position for transportation.

· **After skin contact:**

Immediately wash with water and soap and rinse thoroughly.

If skin irritation occurs, consult a doctor.

· **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.

· **After swallowing:** Drink copious amounts of water and provide fresh air. Immediately call a doctor.

· **Information for doctor:**

· **Most important symptoms and effects, both acute and delayed:** No further relevant information available.

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- **Indication of any immediate medical attention and special treatment needed:**
No further relevant information available.

* 5 Fire-Fighting Measures

- **Extinguishing media:**
- **Suitable extinguishing agents:**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture:** No further relevant information available.
- **Advice for firefighters:**
- **Protective equipment:**
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:**
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:** Dilute with plenty of water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (i.e. sand, diatomite, acid binders, universal binders, sawdust).
Use neutralizing agent.
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.

* 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 the original container.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** No further relevant information available..
- **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:**
- **Components with occupational exposure limits:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists that were valid during the creation of this SDS were used as basis.

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- **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.
 Immediately remove all soiled and contaminated clothing and wash before reuse.
 Wash hands before breaks and at the end of work.
 Avoid contact with the eyes.
 Avoid contact with the eyes and skin.
- **Breathing equipment:** Not required.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
 Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Select glove material based on penetration times, rates of diffusion and degradation.

- **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:**



Tightly sealed goggles

*** 9 Physical and Chemical Properties**

- **Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**

Form:	Liquid
Color:	Pale yellow
- **Odor:** Vinegar
- **Odor threshold:** Not determined.
- **pH-value @ 20 °C (68 °F):** 10.2
- **Change in condition**

Melting point/Melting range:	Not determined.
Boiling point/Boiling range:	153 °C (307 °F)
- **Flash point:** None
- **Flammability (solid, gaseous):** Not applicable.

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- **Ignition temperature:** 265 °C (509 °F)
- **Decomposition temperature:** Not determined.
- **Auto igniting:** Product is not self-igniting.
- **Danger of explosion:** Product does not present an explosion hazard.
- **Explosion limits:**
 - Lower:** 0.6 Vol %
 - Upper:** 6.5 Vol %
- **Vapor pressure @ 20 °C (68 °F):** 6.6 hPa (5 mm Hg)
- **Density @ 20 °C (68 °F):** 1.07 g/cm³ (8.929 lbs/gal)
- **Relative density:** Not determined.
- **Vapor density:** Not determined.
- **Evaporation rate:** Not determined.
- **Solubility in / Miscibility with:**
 - Water:** Fully miscible.
- **Partition coefficient (n-octanol/water):** Not determined.
- **Viscosity:**
 - Dynamic @ 20 °C (68 °F):** 3 mPas
 - Kinematic:** Not determined.
- **Solvent content:**
 - Organic solvents:** 65.0 %
 - VOC content:** 65.0 %
 - Solids content:** 20.0 %
- **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.

* 11 Toxicological Information

- **Information on toxicological effects:**
- **Acute toxicity:**

LD/LC50 values that are relevant for classification:		
Solvent naphtha (petroleum), medium aliph.		
Oral	LD50	>6500 mg/kg (rat)
Dermal	LD50	>3000 mg/kg (rab)
Inhalative	LC50/4 h	>14 mg/l (rat)
	LC50/48 hrs	800 mg/l (daphnia)

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Trade name: NuFlo CSI-2

64665-57-2 sodium 4(or 5)-methyl-1H-benzotriazolid		
Oral	LD50	1980 mg/kg (rat)
Dermal	LD50	>2000 mg/kg (rabbit)
Inhalative	LC50/96 hours	25 mg/l (Trout)
		122 mg/l (Zebra fish)

- **Primary irritant effect:**
- **On the skin:** Strong caustic effect on skin and mucous membranes.
- **On the eye:**
Strong irritant with the danger of severe eye injury.
Corrosive effect.
Causes serious eye irritation.
- **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
Corrosive
Irritant
Swallowing will lead to a corrosive effect on mouth and throat and to the danger of perforation of esophagus and stomach.

· **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:
64665-57-2 sodium 4(or 5)-methyl-1H-benzotriazolid
EC50 26.2 mg/l (Green algae)
280 mg/l (daphnia)
280 mg/l (Water flea)

- **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.
- **Additional ecological information:**
- **General notes:**
Generally not hazardous for water.
Must not reach bodies of water or drainage ditch undiluted or unneutralized.
- **Results of PBT and vPvB assessment:**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects:** No further relevant information available.

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* 13 Disposal Considerations

- **Waste treatment methods:**
- **Recommendation:**
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 packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

* 14 Transport Information

- **UN-Number:**
- **DOT, ADR, ADN, IMDG, IATA** Non-Regulated Material
- **UN proper shipping name:**
- **DOT, ADR, ADN, IMDG, IATA** Non-Regulated Material
- **Transport hazard class(es):**
- **DOT, ADR, ADN, IMDG, IATA**
- **Class:** Non-Regulated Material
- **Packing group:**
- **DOT, ADR, 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):**

Solvent naphtha (petroleum), medium aliph.

1984-06-1 sodium octanoate

64665-57-2 sodium 4(or 5)-methyl-1H-benzotriazolide

· **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.

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<ul style="list-style-type: none"> · Chemicals known to cause developmental toxicity:
None of the ingredients are listed.

<ul style="list-style-type: none"> · Carcinogenic categories:
<ul style="list-style-type: none"> · EPA (Environmental Protection Agency):
None of the ingredients are listed.

<ul style="list-style-type: none"> · TLV (Threshold Limit Value established by ACGIH):
None of the ingredients are listed.

<ul style="list-style-type: none"> · 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:**



GHS05 GHS08

- **Signal word:** Danger

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

Solvent naphtha (petroleum), medium aliph.
sodium 4(or 5)-methyl-1H-benzotriazole

- **Hazard statements:**

Causes severe skin burns and eye damage.
May be fatal if swallowed and enters airways.

- **Precautionary statements:**

Do not breathe dusts or mists.
Wear eye protection / face protection.
Wash thoroughly after handling.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Specific treatment (see supplementary first aid instructions on this Safety Data Sheet).
IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
Wash contaminated clothing before reuse.
If swallowed: Rinse mouth. Do NOT induce vomiting.
Store locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations.

<ul style="list-style-type: none"> · National regulations:
The product is subject to be classified according with the latest version of the regulations on hazardous substances.

<ul style="list-style-type: none"> · State Right to Know: 		
	Solvent naphtha (petroleum), medium aliph. ⚠ Flam. Liq. 3, H226; ⚠ Asp. Tox. 1, H304	60-90%
CAS: 1984-06-1 RTECS: RH 0787000	sodium octanoate ⚠ Skin Irrit. 2, H315	15-35%

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Trade name: NuFlo CSI-2

	Proprietary Blend of Polymers and Polyacrylates	5-10%
CAS: 64665-57-2	sodium 4(or 5)-methyl-1H-benzotriazolidine	2-12%
	⚠ Skin Corr. 1C, H314; Eye Dam. 1, H318; ⚠ Acute Tox. 4, H302	
All 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:** 10/24/2015 / 4

· **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
- Skin Corr. 1C: Skin corrosion/irritation, Hazard Category 1C
- Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1
- Asp. Tox. 1: Aspiration hazard, Hazard Category 1

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

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