

# SAFETY DATA SHEET

## SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

<u>TRADE NAME (AS LABELED):</u>	<b>CLEAR SOLV</b>
<u>CHEMICAL NAME/CLASS:</u>	Industrial Solvent
<u>PRODUCT USE:</u>	Industrial use, anti-foaming agent
<u>SUPPLIER/MANUFACTURER'S NAME:</u>	<b>Clear Solutions USA</b>
<u>ADDRESS:</u>	47 North Ski Court Gilbert, AZ 85233
<u>EMERGENCY PHONE:</u>	1-800-424-9300 ( <b>CHEMTREC</b> )
<u>BUSINESS PHONE:</u>	480/631-0996

## SECTION 2: HAZARDS IDENTIFICATION

<u>SKIN SENSITIZATION:</u>	Category 1B
<u>ACUTE AQUATIC TOXICITY:</u>	Category 1
<u>CHRONIC AQUATIC TOXICITY:</u>	Category 2

### Label elements

### Hazard Symbols



### Signal Word

### Warning

<b>Hazard statements</b>	H317 May cause an allergic skin reaction. H400 Very toxic to aquatic life. H411 Toxic to aquatic life with long lasting effects.
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## Precautionary statements

<b>Prevention</b>	P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P272 Contaminated work clothing should not be allowed out of the workplace. P273 Avoid release to the environment.
<b>Response</b>	P302 + P352 IF ON SKIN: Wash with plenty of soap and water. P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention. P363 Wash contaminated clothing before reuse. P391 Collect spillage.
<b>Disposal</b>	P501 Dispose of contents/ container to an approved waste disposal plant.

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

<b>Components</b>	<b>Weight percent</b>
*Proprietary*	100

See Section 8 for Exposure Guidelines and Section 15 for Regulatory Classifications.

## SECTION 4: FIRST AID MEASURES

<b>Eye contact</b>	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
<b>Skin contact</b>	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If symptoms persist, call a physician.
<b>Inhalation</b>	Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration. In case of shortness of breath, give oxygen. Call a physician immediately.
<b>Ingestion</b>	Do not induce vomiting without medical advice. Call a physician immediately. Never give anything by mouth to an unconscious person.

## SECTION 5: FIRE-FIGHTING MEASURES

<b>Fire/explosion</b>	Dangerous gases or fumes may occur in case of fire. NFPA Class IIIB combustible liquid.
<b>Suitable extinguishing Media</b>	Water spray, Foam, Dry chemical, Carbon dioxide (CO <sub>2</sub> )
<b>Protective equipment and precautions for firefighters</b>	Wear self-contained breathing apparatus and protective suit.
<b>Further information</b>	Keep containers and surroundings cool with water spray.

## SECTION 6. ACCIDENTAL RELEASE MEASURES

**Methods and removal  
Materials for containment  
And cleaning up**

Remove all sources of ignition. Ensure adequate ventilation. 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). Avoid subsoil penetration. Do not flush into surface water or sanitary sewer system.

## SECTION 7. HANDLING and STORAGE

Safe handling advice	Normal measures for preventive fire protection.
Storage/Transport Pressure	Ambient
Load/Unload Temperature	Ambient

## SECTION 8. EXPOSURE CONTROLS - PERSONAL PROTECTION

**ENGINEERING MEASURES** Ensure adequate ventilation, especially in confined areas.

**PERSONAL PROTECTIVE EQUIPMENT**

<b>Eyes</b>	Wear as appropriate: Goggles, Face-shield
<b>Skin</b>	Wear suitable protective clothing, gloves and eye/face protection.
<b>Inhalation</b>	Respiratory protection is normally not required except in emergencies or when conditions cause excessive airborne levels of mists or vapors. Use NIOSH approved respiratory protection.

**EXPOSURE GUIDELINES**

Contains no substances with occupational exposure limit values.

## SECTION 9. PHYSICAL and CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

<b>Appearance</b>	liquid
<b>Color</b>	colourless
<b>Form</b>	liquid
<b>Odor</b>	characteristic
<b>Odor Threshold</b>	No data available
<b>Flash point</b>	97 °C, 206 °F; ISO 2592;
<b>Flammability</b> Upper explosion limit:	25 %(V)
Lower explosion limit:	0.7 %(V)
<b>Boiling point/boiling range</b>	211 °C, 412 °F;
<b>Melting point/range</b>	Pour point: -46 °C, -51 °F; ASTM D 97-66;
<b>Auto-ignition temperature</b>	188 °C, 370 °F;
<b>Decomposition temperature</b>	No data available
<b>Flammability (solid, gas)</b>	No data available
<b>Vapor pressure</b>	0.02 hPa 44 hPa @ 20 °C, 68 °F;

<b>Vapor density</b>	No data available
<b>Density</b>	0.793 g/cm <sup>3</sup> @ 20 °C, 68 °F;

Relative density	No data available
Water solubility	0.39 mg/l @ 25 °C, 77 °F;
Viscosity	2.1 mm <sup>2</sup> /s @ 20 °C, 68 °F;
Viscosity, dynamic	1.7 mPa.s @ 20 °C, 68 °F; ASTM D 7042;
pH	No data available
Evaporation rate	No data available
Partition coefficient: n-octanol/water	Pow: 6.08; @ 25 °C, 77 °F;

## SECTION 10. STABILITY and REACTIVITY

<b>Reactivity</b>	Stable at normal ambient temperature and pressure.
<b>Chemical stability</b>	No decomposition if stored and applied as directed.
<b>Conditions to avoid</b>	Direct heating, dirt, chemical contamination, sunlight, UV or ionising radiation.
<b>Hazardous decomposition products</b>	No decomposition if stored normally.
<b>Materials to avoid</b>	None known.
<b>Hazardous Polymerization</b>	None known

## SECTION 11. TOXICOLOGICAL INFORMATION

<b>Additional Remarks</b>	Information given is based on data obtained from similar substances. Test substance: Proprietary
<b>Acute dermal toxicity</b>	LD50 Rat: > 5,000 mg/kg; OECD Test Guideline 402 Based on available data, the classification criteria are not met.
<b>Acute inhalation toxicity</b>	LC50 Rat (4 hours): > 5.17 mg/l; dust/mist; OECD Test Guideline 403 Based on available data, the classification criteria are not met.
<b>Acute oral toxicity</b>	LD50 Rat: > 5,000 mg/kg; OECD Test Guideline 423 Based on available data, the classification criteria are not met.
<b>Skin corrosion/irritation</b>	(human skin) slightly irritating (literature value) The data are derived from the evaluations or test results achieved with similar products (conclusion by analogy). Based on available data, the classification criteria are not met.
<b>Serious eye damage/eye Irritation</b>	(Rabbit): OECD Test Guideline 405 Not irritating Based on available data, the classification criteria are not met.
<b>Respiratory or skin Sensitization</b>	Causes sensitization on guinea-pigs.
<b>Germ cell mutagenicity</b>	<b>Genotoxicity in vitro:</b> Result: In vitro tests did not show mutagenic effects (literature value)
	<b>Genotoxicity in vivo:</b> No data available Based on available data, the classification criteria are not met.

<b>Reproductive toxicity</b>	<p><b>Reproductive toxicity:</b> Repeated dose toxicity studies gave no indication of adverse effects on reproductive Organs No embryotoxic effects have been observed in animal tests.</p> <p><b>Assessment Reproductive toxicity:</b> Based on available data, the classification criteria are not met.</p> <p><b>Teratogenicity:</b> Rat; Oral; OECD Test Guideline 414 No adverse maternal or fetal effects were observed. (literature value)</p> <p><b>Assessment teratogenicity:</b> Based on available data, the classification criteria are not met.</p>
<b>STOT – single exposure</b>	The substance or mixture is not classified as specific target organ toxicant, single exposure.
<b>STOT – repeated exposure</b>	Rat; Oral; 90-day; OECD Test Guideline 408 NOAEL: 1,000 mg/kg (literature value) The substance or mixture is not classified as specific target organ toxicant, repeated exposure.
<b>Aspiration toxicity</b>	Not applicable
<b>Carcinogenicity Assessment carcinogenicity:</b>	Contains no ingredient listed as a carcinogen

## SECTION 12. ECOLOGICAL INFORMATION

<b>Toxicity to fish</b>	LC50 96 hours: > 0.1 - 1 mg/l calculated
<b>Toxicity to aquatic Invertebrates</b>	EC50 (Daphnia magna (Water flea)) 48 hours: > 0.1 - 1 mg/l; semi-static test; OECD Test Guideline 202
<b>Toxicity to algae</b>	ErC50 (Pseudokirchneriella subcapitata (green algae)) 72 hours: > 0.01 - 0.1 mg/l; OECD Test Guideline 201  ErC10 (Pseudokirchneriella subcapitata (green algae)) 72 hours: > 0.01 - 0.1 mg/l; OECD Test Guideline 201
<b>Chronic toxicity to fish Chronic toxicity to aquatic invertebrates</b>	No data available  EC10 (Daphnia magna (Water flea)) 21 d: > 0.01 - 0.1 mg/l; semi-static test; OECD Test Guideline 211
<b>Biodegradation</b>	Readily biodegradable.OECD Test Guideline 301F (28 d): > 60 %
<b>Bioaccumulative Potential</b>	QSARBCF: 38; Bioaccumulation is unlikely.
<b>Mobility in soil</b>	Medium: Adsorption/Soil/Sewage sludge; QSAR log Koc: 3.6 Slightly mobile in soils The substance and its relevant degradation products decompose rapidly.
<b>Other adverse effects</b>	This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

## SECTION 13. DISPOSAL CONSIDERATIONS

<b>Waste Code</b>	Any unused product or empty containers may be disposed of as non-hazardous in
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accordance with state and federal requirements. Re-evaluation of the product may be required by the user at the time of disposal, since the product uses, transformations, mixtures, contamination, and spillage may change the classification. If the resulting material is determined to be hazardous, please dispose in accordance with state and federal (40 CFR 262) hazardous waste regulations.

**Disposal methods**

Dispose of only in accordance with local, state, and federal regulations.

**Empty containers.**

Empty containers retain product residue (liquid and/or vapor) and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. Empty drums should be completely drained, triple-rinsed, properly bunged and promptly returned to a drum reconditioner, or properly disposed.

## SECTION 14. TRANSPORTATION INFORMATION

**DOT**

UN 3082, Environmentally hazardous substance, liquid, n.o.s., (Proprietary), 9, III, Marine pollutant  
Not regulated in non-bulk packaging of 119 gallons or less or a net mass of 882 pounds or less per package.

**IATA**

UN 3082, Environmentally hazardous substance, liquid, n.o.s., (Proprietary), 9, III  
Not regulated in non-bulk packaging of 5L or less or a net mass of 5kg or less per package.

**IMDG**

UN 3082, Environmentally hazardous substance, liquid, n.o.s., (Proprietary), 9, III, Marine pollutant  
This product is regulated as a Marine Pollutant when shipped by water in all quantities according to the IMDG Code.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

**Remarks** No data available

## SECTION 15. REGULATORY INFORMATION

### U.S. FEDERAL REGULATIONS

**SARA 302 Status**

**Components**

**CAS-No.**

**Weight percent**

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 311/312 Classification**

Should this product meet EPCRA 311/312 Tier reporting criteria of 40 CFR 370, refer to Section 2 of this SDS for appropriate classification and Section 3 for components that meet the hazardous classification.

**SARA 313 Chemical**

**Components**

**CAS-No.**

**Weight percent**

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**US. EPA CERCLA Hazardous Substances (40 CFR 302)**

**Components**

**Reportable Quantity**

**Weight percent**

none

### INTERNATIONAL REGULATIONS

**WHMIS Classification**

Skin sensitization	Category 1B
Acute aquatic toxicity	Category 1
Chronic aquatic toxicity	Category 2

**European Union**

Classification according to Regulation (EU) 1272/2008.  
 Skin sensitisation, Category 1B  
 Acute aquatic toxicity, Category 1  
 Chronic aquatic toxicity, Category 2

<b>Australia. Inventory of Chemical Substances (AICS)</b>	Listed
<b>Japan. Inventory of Existing and New Chemical Substances (ENCS)</b>	Listed
<b>Japan. ISHL - Inventory of Chemical Substances</b>	Listed
<b>Canada. Domestic Substances List (DSL) Inventory</b>	Listed
<b>Canada. Non-Domestic Substance Listing (NDSL)</b>	Not listed
<b>Philippines. Inventory of Chemicals / Chemical Substances (PICCS)</b>	Listed
<b>Korea. Existing Chemicals Inventory (KECI)</b>	Listed
<b>China. Inventory of Existing Chemical Substances (IECSC)</b>	Not listed
<b>Mexico. National Inventory of Chemical Substances (INSQ)</b>	Listed
<b>New Zealand. Inventory of Chemical Substances (NZIoC)</b>	Not listed
<b>Switzerland. Inventory of Notified New Substances (CHINV)</b>	Listed
<b>Taiwan. National Existing Chemical Inventory (NECI)</b>	Listed

Please note: The names and CAS numbers which are used for this product in the stated inventories may deviate from the information which is listed in Section 3.

**STATE REGULATIONS**

<b>California Prop. 65 Components</b>	<b>CAS-No.</b>
none	

**SECTION 16. OTHER INFORMATION****HAZARD RATINGS**

	Health	Flammability	Physical Hazard/Instability
<b>HMIS®</b>	2	1	0
<b>NFPA</b>	2	1	0

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**PURPOSE.** Seller's and manufacturer's only obligation shall be to replace such quantity of the product proved to be defective. Before using, user shall determine the suitability of the product for its intended use, and user assumes all risks and liability whatsoever in connection therewith.

**NEITHER SELLER NOR MANUFACTURER SHALL BE LIABLE EITHER IN TORT OR IN CONTRACT FOR ANY LOSS OR DAMAGE, DIRECT, INCIDENTAL OR CONSEQUENTIAL, ARISING OUT OF THE USE OR THE INABILITY TO USE THE PRODUCT.**



## DEFINITIONS OF TERMS

A large number of abbreviations and acronyms appear on an SDS. Some of these which are commonly used include the following:

**CAS #:** This is the Chemical Abstract Service Number which uniquely identifies each constituent.

### EXPOSURE LIMITS IN AIR:

**ACGIH** - American Conference of Governmental Industrial Hygienists, a professional association which establishes exposure limits. **TLV** - Threshold Limit Value - an airborne concentration of a substance which represents conditions under which it is generally believed that nearly all workers may be repeatedly exposed without adverse effect. The duration must be considered, including the 8-hour Time Weighted Average (**TWA**), the 15-minute Short Term Exposure Limit, and the instantaneous Ceiling Level (**C**). Skin absorption effects must also be considered.

**OSHA** - U.S. Occupational Safety and Health Administration.

**PEL** - Permissible Exposure Limit - This exposure value means exactly the same as a TLV, except that it is enforceable by OSHA. The OSHA Permissible Exposure Limits are based in the 1989 PELs and the June, 1993 Air Contaminants Rule (Federal Register: 58: 35338-35351 and 58: 40191). Both the current PELs and the vacated PELs are indicated. The phrase, "Vacated 1989 PEL," is placed next to the PEL which was vacated by Court Order. **IDLH** - Immediately Dangerous to Life and Health - This level represents a concentration from which one can escape within 30-minutes without suffering escape-preventing or permanent injury. **The DFG - MAK** is the Republic of Germany's Maximum Exposure Level, similar to the U.S. PEL. **NIOSH** is the National Institute of Occupational Safety and Health, which is the research arm of the U.S. Occupational Safety and Health Administration (**OSHA**). NIOSH issues exposure guidelines called Recommended Exposure Levels (**RELs**). When no exposure guidelines are established, an entry of **NE** is made for reference.

### HAZARD RATINGS:

**HAZARDOUS MATERIALS IDENTIFICATION SYSTEM:** Health Hazard:

**0** (minimal acute or chronic exposure hazard); **1** (slight acute or chronic exposure hazard); **2** (moderate acute or significant chronic exposure hazard); **3** (severe acute exposure hazard; onetime overexposure can result in permanent injury and may be fatal); **4** (extreme acute exposure hazard; onetime overexposure can be fatal). Flammability Hazard: **0** (minimal hazard); **1** (materials that require substantial pre-heating before burning); **2** (combustible liquid or solids; liquids with a flash point of 38-93°C [100-200°F]); **3** (Class IB and IC flammable liquids with flash points below 38°C [100°F]); **4** (Class IA flammable liquids with flash points below 23°C [73°F] and boiling points below 38°C [100°F]). Reactivity Hazard: **0** (normally stable); **1** (material that can become unstable at elevated temperatures or which can react slightly with water); **2** (materials that are unstable but do not detonate or which can react violently with water); **3** (materials that can detonate when initiated or which can react explosively with water); **4** (materials that can detonate at normal temperatures or pressures).

**NATIONAL FIRE PROTECTION ASSOCIATION:** Health Hazard: **0** (material that on exposure under fire conditions would offer no hazard beyond that of ordinary combustible materials); **1** (materials that on exposure under fire conditions could cause irritation or minor residual injury); **2** (materials that on intense or continued exposure under fire conditions could cause temporary incapacitation or possible residual injury); **3** (materials that can on short exposure could cause serious temporary or residual injury); **4** (materials that under very short exposure causes death or major residual injury). Flammability Hazard and Reactivity Hazard: Refer to definitions for "Hazardous Materials Identification System".

### FLAMMABILITY LIMITS IN AIR:

Much of the information related to fire and explosion is derived from the National Fire Protection Association (**NFPA**). Flash Point - Minimum temperature at which a liquid gives off sufficient vapors to form an ignitable mixture with air. Autoignition Temperature: The minimum temperature required to initiate combustion in air with no other source of ignition. **LEL** - the lowest percent of vapor in air, by volume, that will explode or ignite in the presence of an ignition source. **UEL** - the highest percent of vapor in air, by volume, that will explode or ignite in the presence of an ignition source.

### TOXICOLOGICAL INFORMATION:

**Human and Animal Toxicology:** Possible health hazards as derived from human data, animal studies, or from the results of studies with similar compounds are presented. Definitions of some terms used in this section are: **LD<sub>50</sub>** - Lethal Dose (solids & liquids) which kills 50% of the exposed animals; **LC<sub>50</sub>** - Lethal Concentration (gases) which kills 50% of the exposed animals; **ppm** concentration expressed in parts of material per million parts of air or water; **mg/m<sup>3</sup>** concentration expressed in weight of substance per volume of air; **mg/kg** quantity of material, by weight, administered to a test subject, based on their body weight in kg. Other measures of toxicity include **TDLo**, the lowest dose to cause a symptom and **TCLo** the lowest concentration to cause a symptom; **TDo**, **LDLo**, and **LDo**, or **TC**, **TCo**, **LCLo**, and **LCo**, the lowest dose (or concentration) to cause lethal or toxic effects. **Cancer Information:** The sources are: **IARC** - the International Agency for Research on Cancer; **NTP** - the National Toxicology Program, **RTECS** - the Registry of Toxic Effects of Chemical Substances, **OSHA** and **CAL/OSHA**. IARC and NTP rate chemicals on a scale of decreasing potential to cause human cancer with rankings from 1 to 4. Subrankings (2A, 2B, etc.) are also used. **Other Information:** **BEI** - ACGIH Biological Exposure Indices, represent the levels of determinants which are most likely to be observed in specimens collected from a healthy worker who has been exposed to chemicals to the same extent as a worker with inhalation exposure to the TLV. **Ecological Information:** **EC** is the effect concentration in water. **BCF** = Bioconcentration Factor, which is used to determine if a substance will concentrate in lifeforms which consume contaminated plant or animal matter. Coefficient of Oil/Water Distribution is represented by **log K<sub>ow</sub>** or **log K<sub>oc</sub>** and is used to assess a substance's behavior in the environment.

### REGULATORY INFORMATION:

This section explains the impact of various laws and regulations on the material. **U.S.:** **EPA** is the U.S. Environmental Protection Agency. **DOT** is the U.S. Department of Transportation. **SARA** is the Superfund Amendments and Reauthorization Act. **TSCA** is the U.S. Toxic Substance Control Act. **CERCLA (or Superfund)** refers to the Comprehensive Environmental Response, Compensation, and Liability Act. Labeling is per the American National Standards Institute (**ANSI Z129.1**). **CANADA:** **CEPA** is the Canadian Environmental Protection Act. **WHMIS** is the Canadian Workplace Hazardous Materials Information System. **TC** is Transport Canada. **DSL/NDL** are the Canadian Domestic/Non-Domestic Substances Lists.