

Safety Data Sheet (SDS)

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

Printing date 04/07/2015

Reviewed on 04/07/2015

1 Identification

- **Product identifier**
- **Trade name: *EN SOLV***
- **Relevant identified uses of the substance or mixture and uses advised against**
General Purpose Hard Surface Cleaner
- **Product description** Concentrated Water-Based Citrus All Purpose Cleaner
- **Details of the supplier of the safety data sheet**

MANUFACTURER

:

Pioneer Research Corporation
3110 N. 19th Ave
Phoenix, AZ 85015

General Information Number: (602) 230-0012
Chemtel Emergency Number: (800) 255-3924

2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS08 Health hazard

Carc. 2 H351 Suspected of causing cancer.



GHS09 Environment

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.
Eye Irrit. 2A H319 Causes serious eye irritation.
Skin Sens. 1 H317 May cause an allergic skin reaction.

- **Label elements**
- **GHS label elements**
The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS07



GHS08



GHS09

- **Signal word** Warning

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Trade name: EN SOLV**· Hazard-determining components of labeling:**

d-limonene

Alcohol C9-11

Coconut diethanolamide - anionic surfactant

· Hazard statements

Causes skin irritation.

Causes serious eye irritation.

May cause an allergic skin reaction.

Suspected of causing cancer.

Toxic to aquatic life with long lasting effects.

· Precautionary statements

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

Wear protective gloves.

Wear eye protection / face protection.

Avoid release to the environment.

Wash thoroughly after handling.

Contaminated work clothing must not be allowed out of the workplace.

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

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).

Wash contaminated clothing before reuse.

If exposed or concerned: Get medical advice/attention.

If skin irritation or rash occurs: Get medical advice/attention.

If eye irritation persists: Get medical advice/attention.

If on skin: Wash with plenty of water.

Collect spillage.

Take off contaminated clothing and wash it before reuse.

Store locked up.

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

· Unknown acute toxicity:

81.8 percent of the mixture consists of ingredient(s) of unknown toxicity.

· Classification system:**· NFPA ratings (scale 0 - 4)**

Health = 1

Fire = 1

Reactivity = 0

· HMIS-ratings (scale 0 - 4)

Health = *1

Fire = 1

Reactivity = 0

· Other hazards None known*** 3 Composition/information on ingredients**

CAS: 7732-18-5 RTECS: ZC 0110000	Water, de-ionized	60-90%
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· **Chemical characterization: Mixtures**

· **Description:** Mixture of substances listed below with nonhazardous additions.

· **Dangerous Components:**

CAS: 68132-46-7	Fatty acids, tall-oil, compds. with triethanolamine ⚠ Skin Irrit. 2, H315; Eye Irrit. 2B, H320	10-15%
CAS: 5989-27-5 RTECS: GW 6360000	d-limonene ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Skin Irrit. 2, H315; Skin Sens. 1, H317; Flam. Liq. 4, H227	5-10%
CAS: 112-34-5 RTECS: KJ 9100000	Diethylene Glycol Monobutyl Ether ⚠ Eye Irrit. 2, H319; Flam. Liq. 4, H227	2-12%
CAS: 68603-42-9	Coconut diethanolamide - anionic surfactant ⚠ Carc. 2, H351; ⚠ Acute Tox. 4, H302; Skin Irrit. 2, H315	2-12%
CAS: 68439-46-3	Alcohol C9-11 ⚠ Eye Dam. 1, H318; ⚠ Skin Irrit. 2, H315	2-12%
	2,3-Dicarboxylic acid compds. with monoethanolamine ⚠ Skin Irrit. 2, H315; Eye Irrit. 2B, H320	2-12%

* 4 First-aid measures

· **Description of first aid measures**

· **General information:**

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

· **After inhalation:**

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

In case of unconsciousness, place patient securely on 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 at least 15 minutes under running water. If symptoms persist, 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** 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:**

CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

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

If incinerated, product will release the following toxic fumes: Oxides of Carbon, Nitrogen (NO_x), Sodium, and Sulfur.

· **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.

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* 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**

Ensure adequate ventilation

Avoid contact with skin, eyes and clothing.

- **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 (ie. sand, diatomite, acid binders, universal binders, sawdust).

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**

Store away from strong acids, strong bases, strong oxidizing agents, Nitro compounds, Iron, Copper, Brass, galvanized surfaces and rubber.

- **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 local exhaust at filling zones and where leakage and dust formation is probable. 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:**

5989-27-5 d-limonene

TWA Short-term value: 10 mg/m³

112-34-5 Diethylene Glycol Monobutyl Ether

TLV Long-term value: 67.5* mg/m³, 10* ppm

*Inhalable fraction and vapor

- **Additional information:** The lists that were valid during the creation 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 and skin.

- **Breathing equipment:** Use suitable respiratory protective device in case of insufficient ventilation.

- **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

- **Body protection:**



Protective work clothing

* 9 Physical and chemical properties

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

- **General Information**

- **Appearance:**

Form:

Liquid

Color:

Amber

- **Odor:**

Citrus

- **Odor threshold:**

Not determined.

- **pH-value @ 20 °C (68 °F):**

9.5

- **Change in condition**

Melting point/Melting range:

Not determined.

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Trade name: **EN SOLV**

Boiling point/Boiling range:	100 °C (212 °F)
· Flash point:	Not applicable.
· Flammability (solid, gaseous):	Not applicable.
· Ignition temperature:	225 °C (437 °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:	0.0 Vol %
Upper:	0.0 Vol %
· Vapor pressure @ 20 °C (68 °F):	23 hPa (17 mm Hg)
· Density @ 20 °C (68 °F):	0.97 g/cm ³ (8.095 lbs/gal)
· Relative density	Not determined.
· Vapor density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with Water:	Not miscible or difficult to mix.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
Organic solvents:	13.1 %
Water:	60.5 %
VOC content:	13.1 %
· 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 acids, strong bases, strong oxidizing agents, Nitro compounds, Iron, Copper, Brass, galvanized surfaces and rubber.
- **Hazardous decomposition products:** Oxides of Carbon, Nitrogen (NOx), Sodium, and Sulfur.

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Trade name: **EN SOLV*****11 Toxicological information**· **Information on toxicological effects**· **Acute toxicity:**· **LD/LC50 values that are relevant for classification:**

5989-27-5 d-limonene		
Oral	LD50	4400 mg/kg (rat) Remarks: Behavioral: Change in motor activity (specific assay). Respiratory disorder Skin and Appendages: Other: Hair
Dermal	LD50	>5000 mg/kg (rabbit)
Inhalative	LC50/96 hours	0.72 mg/l (Pimephales) (OECD Test Guideline 203)
112-34-5 Diethylene Glycol Monobutyl Ether		
Oral	LD50	5660 mg/kg (rat)
Dermal	LD50	4000 mg/kg (rabbit)
68603-42-9 Coconut diethanolamide - anionic surfactant		
Oral	LD50	1600 mg/kg (rat)
Dermal	LD50	12200 mg/kg (rabbit)

· **Primary irritant effect:**· **on the skin:**

Irritant to skin and mucous membranes.

May cause an allergic skin reaction.

· **on the eye:**

Irritating effect.

Causes serious eye irritation.

· **Sensitization:** Sensitization possible through skin contact.· **Additional toxicological information:**

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

· **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

5989-27-5	d-limonene	3
68603-42-9	Coconut diethanolamide - anionic surfactant	2B
67-63-0	Isopropyl alcohol	3

· **NTP (National Toxicology Program)**

None of the ingredients are listed.

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

None of the ingredients are listed.

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Trade name: **EN SOLV***** 12 Ecological information**· **Toxicity**· **Aquatic toxicity:**

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

5989-27-5 d-limonene

EC50 0.36 mg/l (daphnia) (OECD Test Guideline 202)

· **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:** Toxic for 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.

Also poisonous for fish and plankton in water bodies.

Toxic for 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 garbage. Do not allow product to reach sewage system.

· **Uncleaned packagings:**· **Recommendation:**

Dispose of as unused product.

Disposal must be made according to official regulations.

*** 14 Transport information**· **UN-Number**· **DOT**· **ADR, IMDG, IATA**· **UN proper shipping name**· **DOT**· **ADR**· **IMDG**· **IATA**

Non-Regulated Material

UN3082

Non-Regulated Material

UN3082 Environmentally hazardous substances, liquid, n.o.s. (Dipentene)

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (DIPENTENE), MARINE POLLUTANT

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (DIPENTENE)

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Trade name: EN SOLV· **Transport hazard class(es)**· **DOT**· **Class**

Non-Regulated Material

· **ADR**· **Class**

9 (M6) Miscellaneous dangerous substances and articles

· **Label**

9

· **IMDG, IATA**· **Class**

9 Miscellaneous dangerous substances and articles

· **Label**

9

· **Packing group**· **DOT**

Non-Regulated Material

· **ADR, IMDG, IATA**

III

· **Environmental hazards:**

Product contains environmentally hazardous substances: d-limonene

· **Special marking (ADR):**

Symbol (fish and tree)

· **Special marking (IATA):**

Symbol (fish and tree)

· **Special precautions for user**

Warning: Miscellaneous dangerous substances and articles

· **Danger code (Kemler):**

90

· **EMS Number:**

F-A,S-F

· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

Not applicable.

· **Transport/Additional information:**· **ADR**· **Excepted quantities (EQ)**

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

· **IMDG**· **Limited quantities (LQ)**

5L

· **Excepted quantities (EQ)**

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

· **UN "Model Regulation":**

UN3082, Environmentally hazardous substances, liquid, n.o.s. (Dipentene), 9, III

* **15 Regulatory information**· **Safety, health and environmental regulations/legislation specific for the substance or mixture**· **Sara**· **Section 355 (extremely hazardous substances):**

None of the ingredients are listed.

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Trade name: EN SOLV

· Section 313 (Specific toxic chemical listings):		
67-63-0	Isopropyl alcohol	
· TSCA (Toxic Substances Control Act):		
All ingredients are listed.		
· Proposition 65		
· Chemicals known to cause cancer:		
68603-42-9	Coconut diethanolamide - anionic surfactant	
· 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.		
· Carcinogenic categories		
· EPA (Environmental Protection Agency)		
None of the ingredients are listed.		
· TLV (Threshold Limit Value established by ACGIH)		
67-63-0	Isopropyl alcohol	A4
· 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		
		
GHS07	GHS08	GHS09
· Signal word Warning		
· Hazard-determining components of labeling:		
d-limonene		
Alcohol C9-11		
Coconut diethanolamide - anionic surfactant		
· Hazard statements		
Causes skin irritation.		
Causes serious eye irritation.		
May cause an allergic skin reaction.		
Suspected of causing cancer.		
Toxic to aquatic life with long lasting effects.		
· Precautionary statements		
Avoid breathing dust/fume/gas/mist/vapors/spray		
Wear protective gloves.		
Wear eye protection / face protection.		
Avoid release to the environment.		
Wash thoroughly after handling.		

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Trade name: EN SOLV

Contaminated work clothing must not be allowed out of the workplace.
 Obtain special instructions before use.
 Do not handle until all safety precautions have been read and understood.
 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).
 Wash contaminated clothing before reuse.
 IF exposed or concerned: Get medical advice/attention.
 If skin irritation or rash occurs: Get medical advice/attention.
 If eye irritation persists: Get medical advice/attention.
 If on skin: Wash with plenty of water.
 Collect spillage.
 Take off contaminated clothing and wash it before reuse.
 Store locked up.
 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **National regulations:**

The product is subject to be labeled according with the prevailing version of the regulations on hazardous substances.

· **State Right to Know**

CAS: 7732-18-5 RTECS: ZC 0110000	Water, de-ionized	60-90%
CAS: 5989-27-5 RTECS: GW 6360000	d-limonene ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Skin Irrit. 2, H315; Skin Sens. 1, H317; Flam. Liq. 4, H227	5-10%
CAS: 112-34-5 RTECS: KJ 9100000	Diethylene Glycol Monobutyl Ether ⚠ Eye Irrit. 2, H319; Flam. Liq. 4, H227	2-12%
CAS: 68603-42-9	Coconut diethanolamide - anionic surfactant ⚠ Carc. 2, H351; ⚠ Acute Tox. 4, H302; Skin Irrit. 2, H315	2-12%
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** 04/07/2015 / -

· **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
 Flam. Liq. 4: Flammable liquids, Hazard Category 4

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Trade name: *EN SOLV*

Acute Tox. 4: Acute toxicity, Hazard Category 4

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1

Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2

Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A

Eye Irrit. 2B: Serious eye damage/eye irritation, Hazard Category 2B

Skin Sens. 1: Sensitisation - Skin, Hazard Category 1

Carc. 2: Carcinogenicity, Hazard Category 2

Aquatic Acute 1: Hazardous to the aquatic environment - AcuteHazard, Category 1

Aquatic Chronic 1: Hazardous to the aquatic environment - Chronic Hazard, Category 1

Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2

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

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