

## Safety Data Sheet (SDS)

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

Reviewed on 05/07/2015

### 1 Identification

· **Product identifier**

· **Trade name:** NAVSOLVE®

· **Product description**

NAVSOLVE® is a low VOC (<25 gml) degreaser qualified to MIL-PRF-32295A Type II

Product Name	Part No.	Packaging	National Stock Number
NAVSOLVE®	240-55	55 Gal Drum	6850-01-606-8358
NAVSOLVE®	240-15	15 Gal Drum	6850-01-606-3293
NAVSOLVE®	240-5	5 Gal Drum	6850-01-606-8357
NAVSOLVE®	240-1	4 x 1 Gal Case	6850-01-606-8356

· **Details of the supplier of the safety data sheet Manufacturer Supplier:**

Ecolink

2177 Flintstone Drive, Ste. A

Tucker, GA 30084

www.ecolink.com

800-886-8240 or 770-621-8240 (8-5 EST)

email: info@ecolink.com

· **Emergency telephone number:**

Inside the U.S.: 800-535-5053 (INFOTRAC, 24 HOURS)

Outside the U.S.: 352-323-3500 (INFOTRAC, 24 HOURS)

### 2 Hazard(s) identification

· **Classification of the substance or mixture**



GHS08 Health hazard

Repr. 2 H361 Suspected of damaging fertility or the unborn child.

Flam. Liq. 4 H227 Combustible liquid.

Eye Irrit. 28 H320 Causes eye irritation.

· **Label elements**

· **GHS label elements**

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

· **Hazard pictograms**



GHS08

· **Signal word** Warning

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**Trade name: NAVSOLVE®**

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

Octamethylcyclotetrasiloxane

· **Hazard statements**

Combustible liquid.

Causes eye irritation.

Suspected of damaging fertility or the unborn child.

· **Precautionary statements**

Keep away from flames and hot surfaces. – No smoking.

Wear protective gloves, eye protection, face protection.

Wash thoroughly after handling.

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. If eye irritation persists: Get medical advice/attention.

If exposed or concerned: Get medical advice/attention.

In case of fire: Use for extinction: CO<sub>2</sub>, or dry chemical rated for Class B.

Store locked up.

Store in a well-ventilated place. Keep cool.

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

· **Classification system:** NFPA/HMIS Definitions: 0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme

· **NFPA ratings (scale 0 - 4)**



Health = 1

Fire = 2

Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**



Health = \*1

Fire = 2

Reactivity = 0

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

### 3 Composition/information on ingredients

· **Chemical characterization:** Mixtures

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

· **Dangerous Components:**

CAS: 541-02-6	Decamethylcyclopentasiloxane	40-60%
	Flam. Liq. 4, H227; Eye Irrit. 28, H320	
CAS: 556-67-2	Octamethylcyclotetrasiloxane	25-50%
RTECS: GZ 4397000	Flam. Liq. 3, H226; Repr. 2, H361; Aquatic Chronic 4, H413	
CAS: 29911-28-2	Dipropylene glycol, n-butyl ether	2-12%
	Skin Irrit. 2, H315; Eye Irrit. 28, H320	

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**Trade name: NAVSOLVE®**

CAS: 107-41-5	Hexylene Glycol	<1.0%
RTECS: SA 0810000	Skin Irrit. 2, H315; Eye Irrit. 2, H319; Flam. Liq. 4, H227	

### 4 First-aid measures

- **Description of first aid measures**
- **Inhalation:** Supply fresh air. If not breathing provide artificial respiration. Consult doctor if symptoms persist. In case of unconsciousness, place patient securely on side position for transportation.
- **Skin contact:** Wash areas with soap and water, remove contaminated clothing and shoes. If skin irritation occurs, consult a doctor.
- **Eye contact:** Remove contact lenses at once. Rinse opened eye, including under eyelids under running water for at least 15 minutes. If irritation persists, seek medical attention.
- **Swallowing:** Rinse out mouth and then drink plenty of water. **Do not induce vomiting.** If vomiting does occur, repeat fluid administration. If symptoms develop and/or persist, seek medical attention.
- **Information for doctor:** Treat symptomatically
- **Most important symptoms/effects, both acute and delayed:** Breathing difficulties. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting
- **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

### 5 Fire-fighting measures

- **Suitable Extinguishing media:** For small (incipient) fires, use regular foam, water fog, carbon dioxide or dry chemical. For large fires apply water from afar away as possible using very large quantities (flooding) applied as a mist or spray; solid streams of water may be ineffective. Cool affected containers with flooding quantities of water.
- **Special hazards arising from the substance or mixture:** Combustible liquid. Vapors can travel to a source of ignition and flash back. Explosive mixtures may occur at temperatures at or above flashpoint. If incinerated product will release the following toxic fumes: Carbon Oxides and Silicon Oxides.
- **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**  
Ensure adequate ventilation, keep people at a distance and stay upwind. Avoid contact with skin, eyes and clothing. Beware of vapors accumulating to form explosive concentrations, vapors can accumulate in low areas. Keep away from ignition sources

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**Trade name: NAVSOLVE®**

- **Environmental precautions:** 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). Keep in suitable closed containers for disposal. Remove all sources of ignition, use spark proof tools and explosive proof equipment. Dispose contaminated material as waste according to section 13.
- **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

- **Precautions for safe handling:** Avoid contact with skin, eyes and clothing. Keep away from sources of ignition. Ensure good ventilation/exhaustion at the workplace. Open and handle receptacle with care. Prevent formation of mists/vapors. Take measures to prevent electrostatic charge. Keep receptacles tightly sealed.
- **Information about protection against explosions and fires:** Protect from heat, keep away from sparks and flame. Keep protective respiratory device available.
- **Conditions for safe storage, including any incompatibilities:** Store away from strong acids, strong bases, strong oxidizing agents and strong reducing agents.
- **Requirements to be met by storerooms and receptacles:** Store in a well ventilated place. Store in a cool, dry place away from sparks and flame. Do not store in direct sunlight.

### 8 Exposure controls/personal protection

- **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:**

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Engineering Measures:** Ensure adequate ventilation especially in confined areas, ensure eye wash stations and safety showers are close to work stations.
  
- **Components with occupational exposure limits:**
  - 107-41-5 Hexylene Glycol**
  - TLV ACGIH: 25 ppm
  - ACGHI - American Conference of Governmental Industrial Hygienists
  
- **General protective and hygienic measures:** The usual precautionary measures for handling chemicals should be followed. Keep away from foodstuffs, beverages. Immediately remove all soiled and contaminated clothing and wash before reuse. Wash hands before breaks and at the end of work. Store protective clothing separately. Avoid contact with the eyes.-Avoid contact with the eyes and skin.

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- **Breathing equipment:** Not necessary if room is well-ventilated. Where risk assessment shows air-purifying respirators are appropriate use a full face respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
- **Protection of hands:** Handle with gloves. Gloves must be inspected prior to use. Use chemical resistant gloves.

- **Eye protection:**



Wear appropriate protective glasses with side shields or chemical safety goggles. All eye protection should meet OSHA eye and face protection in regulations 29 CFR 1910.133 or NIOSH (US) or EN 166 (EU)

- **Body protection:** Wear appropriate impervious clothing to prevent skin exposure

### 9 Physical and chemical properties

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

- **General Information**

- **Appearance:**

Form:	Liquid
Color:	Colorless
Odor:	Mild
Odor threshold:	Not determined.
pH-value:	Not determined.

- **Change in condition**

Melting point/Melting range:	Not determined.
Boiling point/Boiling range:	85 °C (185 °F)

- **Flash point:** 61 °C (142 °F)
- **Flammability (solid, gaseous):** Not applicable.

- **Ignition temperature:**

Decomposition temperature:	Not determined.
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- **Auto igniting:** Product is not self-igniting.

- **Danger of explosion:** Not determined.

- **Explosion limits:**

Lower:	Not determined.
Upper:	Not determined.

- **Vapor pressure @ 20 °C (68 °F):** <0.5 mm Hg

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- **Density @ 20 °C (68 °F):** 0.950-0.965 g/cm<sup>3</sup> (7.92-8.05 lbs/gal)
- **Relative density** Not determined.
- **Vapor density** >1.0 (air=1)
- **Evaporation rate @ 20 °C (68 °F)** 0.04 (nBuAc=1)
- **Solubility in | Miscibility with Water:** Negligible
- **Partition coefficient (n-octanol|water):** Not determined.
- **Viscosity:**
  - Dynamic:** Not determined.
  - Kinematic:** Not determined.
- **Solvent content:**
- **VOC content:** <25 g/l
- **Other information** No further relevant information available.

### 10 Stability and reactivity

- **Chemical stability** Stable under recommended storage conditions.
- **Possibility of hazardous reactions:** No dangerous reactions known
- **Conditions to avoid:** Elevated temperatures; decomposes with heat. Sources of ignition such as sparks, hot spots, welding, flames. Exposure to moist air or water.
- **Incompatible materials:** Strong acids, strong bases, strong oxidizing agents and strong reducing agents.
- **Hazardous decomposition products:** Carbon Oxides and Silicon Oxides.

### 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **LD/LC50 values that are relevant for classification:**
  - 29911-28-2 Dipropylene glycol n-butyl ether**
    - Oral LD50 >3,700 mg/kg (rat)
    - Dermal LD50 >2,000 mg/kg (rabbit)
  - 107-41-5 Hexylene Glycol**
    - Oral LD50 3,700 mg/kg (rat)
    - Dermal LD50 7,890 mg/kg (rabbit)
- **Information on toxicological effects** The toxicity of this product is unknown.
- **Acute toxicity:**
- **Primary irritant effect:**
  - **on the skin:** No irritating effect.
  - **on the eye:** Irritating effect. Causes serious eye irritation.

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· **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

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

· **Aquatic**

· **Acute: 29911-28-2 Dipropylene glycol, n-butyl ether**

Fish LC50 841 mg/l, 96 hours Guppy (*Poecilia reticulata*)

Crustacea EC50 >1000 mg/l, 48 hours Water flea (*Daphnia magna*)

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

· **Behavior in environmental systems:** An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

· **Bio-accumulative potential** No further relevant information available.

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

· **Additional ecological information:**

· **General notes:** Not known to be hazardous to water.

· **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 or any water system. NAVSOLV liquid is to be disposed of according to local, state, federal and international regulations. This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Offer surplus and non-recyclable solutions to a licensed disposal company. Under RCRA, this material is not considered as hazardous.*

· **Un-cleaned packaging recommendation:** Disposal must be made according to official regulations.

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### 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 Non-Regulated Material  
· Class
- **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 MARPOL73178 and the IBC Code** Not applicable.

### 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.
  - **Section 313 (Specific toxic chemical listings):**  
None of the ingredients are listed.
- **TSCA (Toxic Substances Control Act):**  
All ingredients are listed.
- **California Proposition 65:** This product contains no listed substance known to the State of California to cause cancer, birth defects or other reproductive harm at levels which would require a warning under the statute.
- **State Right to Know:** Components of this product are found on the following state lists. FL, MA, NJ, WI, RI, PA
 

<b>CAS #107-41-5</b>	<b>Hexylene Glycol</b>	<b>Amount &lt;1%</b>
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- **Chemicals known to cause cancer:**  
None of the ingredients listed.
- **Chemicals known to cause reproductive toxicity for females:**  
None of the ingredients listed.
- **Chemicals known to cause reproductive toxicity for males:**  
None of the ingredients listed.
- **Chemicals known to cause developmental toxicity:**  
None of the ingredients listed.



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- **Carcinogenic categories**
- **EPA (Environmental Protection Agency)**  
None of the ingredients listed.
- **TLV (Threshold Limit Value established by ACGIH)**  
None of the ingredients listed.
- **NIOSH-Ca (National Institute for Occupational Safety and Health)**  
None of the ingredients listed.
- **GHS label elements**  
The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS08

- **Signal word** Warning
- **Hazard-determining components of labeling:** Octamethylcyclotetrasiloxane
- **Hazard statements:** Combustible liquid. Causes eye irritation.  
Suspected of damaging fertility or the unborn child.

### Precautionary statements

Keep away from flames and hot surfaces. - No smoking.  
Wear protective gloves eye protection/face protection. Wash thoroughly after handling.  
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. If eye irritation persists: Get medical advice/attention.  
If exposed or concerned: Get medical advice/attention.  
In case of fire: Use for extinction: CO2, powder or water spray.  
Store locked up.  
Store in a well-ventilated place. Keep cool.  
Dispose of contents/container in accordance with local, regional, national, international regulations

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

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### 16 Other Information

*Ecolink, Inc. believes the information contained herein is accurate. However, Ecolink makes no warranty, expressed or implied, regarding the accuracy of this data or the results to be obtained by the use thereof. Ecolink, Inc. assumes no responsibility for injury from the use of the product described herein.*

· **Date of preparation / last revision** 05/07/2015

· **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)

LCS0: Lethal concentration, 50 percent

LDS0: Lethal dose, 50 percent

Flam. Liq. 3: Flammable liquids, Hazard Category 3

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

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

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

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

Repr. 2: Reproductive toxicity, Hazard Category 2

Aquatic Chronic 4: Hazardous to the aquatic environment - Chronic Hazard, Category 4

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