

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:** VORTEX NS

· **Product description**

Terpene based degreaser.

Product Name	Part No.	Packaging
Vortex-NS	046-55	55 Gal Drum
Vortex-NS	046-5	5 Gal Pail
Vortex-NS	046-1	4 x 1 Gal Case

· **Application of the substance I the mixture** Ultra-Low Residue Handwipe Agent

· **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**



GHS02 Flame

Flam. Liq. 3 H226 Flammable liquid and vapor.



GHS08 Health hazard

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



GHS07

Skin Irrit. 2 H315 Causes skin 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).

(Contd. on page 2)

us

Safety Data Sheet (SDS)

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

Reviewed on 05/07/2015

Trade name: VORTEX NS

· **Hazard pictograms**



GHS02 GHS07 GHS08

· **Signal word** *Danger*

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

Citrus Terpene

· **Hazard statements**

Flammable liquid and vapor.

Causes skin irritation.

May cause an allergic skin reaction.

May be fatal if swallowed and enters airways.

· **Precautionary statements**

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Use explosion-proof electrical/ventilating/lighting/equipment.

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

Wear protective gloves/ eye protection / face protection.

Wear protective gloves.

Ground/bond container and receiving equipment.

Keep container tightly closed.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Wash thoroughly after handling.

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

If swallowed: Immediately call a poison center/doctor.

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

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

Wash contaminated clothing before reuse.

If skin irritation occurs: Get medical advice/attention.

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

Do NOT induce vomiting.

In case of fire: Use for extinction: CO2, powder or water spray.

Take off contaminated clothing and wash it before reuse.

Store locked up.

Store in a well-ventilated place. Keep cool.

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

(Contd. on page 3)

uS

Safety Data Sheet (SDS)

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

Reviewed on 05/07/2015

Trade name: VORTEX NS

- **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 Health = 1
FIRE 2 Fire = 2
REACTIVITY 0 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:**

68647-72-3 Citrus Terpene

90-100%

Flam. Liq. 3, H226; Asp. Tox. 1, H304; Aquatic Acute 1, H400;
Aquatic Chronic 1, H410; Skin Irrit. 2, H315; Skin Sens. 1, H317

4 First-aid measures

- **Description of first aid measures**
- **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 several minutes under running water.
- **After swallowing:**
Rinse out mouth and then drink plenty of water.
Do not induce vomiting.
If vomiting does occur, repeat fluid administration
If vomiting occurs, the head should be kept low so that the vomit does not enter the lungs (aspiration).
Once the vomiting ceases, place the person in the recovery position with the legs slightly raised.
If symptoms develop and/or persist, seek medical attention.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed:**
No further relevant information available.

(Contd. on page 4)

us

Safety Data Sheet (SDS)

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

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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:** Regular foam, water fog, carbon dioxide or dry chemical. Class B.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **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.
- **Advice for firefighters** Use water spray to cool unopened containers.
- **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.
Keep away from ignition sources
Wear protective equipment. Keep unprotected persons away.
- **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 (ie. sand, diatomite, acid binders, universal binders, sawdust).
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**
Avoid contact with skin, eyes and clothing
Keep away from sources of ignition.
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols or spray mists.
Keep receptacles tightly sealed.
- **Information about protection against explosions and fires:**
Do not spray on a naked flame or any incandescent material.
Keep ignition sources away - Do not smoke.

(Contd. on page 5)

Safety Data Sheet (SDS)

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

Reviewed on 05/07/2015

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Protect from heat.

Protect against electrostatic charges.

- **Conditions for safe storage, including any incompatibilities**
Store away from strong acids, strong bases, strong oxidizing agents and strong reducing agents.
- **Storage:**
- **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.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Keep receptacle tightly sealed.
Protect from heat and direct sunlight.
- **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:**
None
- **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.
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 skin.
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. Due to missing tests no recommendation to the glove material can be given for the product.

(Contd. on page 6)
us

Safety Data Sheet (SDS)

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

Reviewed on 05/07/2015

Trade name: VORTEX NS

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 or safety glasses with side shields

· **Body protection:**



Protective work clothing

9 Physical and chemical properties

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

· **General Information**

· **Appearance:**

Form:

Liquid

Color:

Clear, light yellow

· **Odor:**

Mild, citrus-Terpene

· **Odor threshold:**

Not determined.

· **pH-value:**

Not determined.

· **Change in condition**

Melting point/Melting range:

Not determined.

Boiling point/Boiling range:

160 °C (320 °F)

· **Flash point:**

51 °C (124 °F)

· **Flammability (solid, gaseous):**

Not applicable.

· **Ignition temperature:**

150 °C (302 °F)

· **Decomposition temperature:**

Not determined.

· **Auto igniting:**

Product is not self-igniting.

· **Danger of explosion:**

Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

· **Explosion limits:**

Lower:

Not determined.

(Contd. on page 7)

Safety Data Sheet (SDS)

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

Reviewed on 05/07/2015

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Upper:	Not determined.
· Vapor pressure @ 20 °C (68 °F):	1.5 mm Hg
· Density @ 20 °C (68 °F):	0.839 g/cm ³ (7.00 lbs/gal)
· Relative density	Not determined.
· Vapor density	>1 (air=1)
· Evaporation rate @ 20 °C (68 °F)	<1 (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:	839 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**
Elevated temperatures; decomposes with heat. Sources of ignition such as sparks, hot spots, welding, flames.
- **Incompatible materials:**
Strong acids, strong bases, strong oxidizing agents and strong reducing agents.
- **Hazardous decomposition products:** Carbon Oxides.

11 Toxicological information

- **Information on toxicological effects** The toxicity of this product is unknown.
- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:**
Irritant to skin and mucous membranes.
May cause an allergic skin reaction.
- **on the eye:** No irritating effect.
- **Sensitization:** Sensitization possible through skin contact.
- **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations: Irritant

(Contd. on page 8)

us

Safety Data Sheet (SDS)

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

Reviewed on 05/07/2015

Trade name: VORTEX NS

- **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**
- **Aquatic toxicity:**
- **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:**
 - Water hazard class 3 (Self-assessment): extremely hazardous for water
 - Do not allow product to reach ground water, water course or sewage system, even in small quantities.
 - Danger to drinking water if even extremely small quantities leak into the ground.
- **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.
 - Vortex liquid is to be disposed of according to local, state, and federal regulations. Please call us if you need additional disposal information.
 - Under RCRA this material is considered a hazardous waste due to the flash point. The EPA hazardous waste number is D001.

(Contd. on page 9)

us

Safety Data Sheet (SDS)





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

Reviewed on 05/07/2015

Trade name: VORTEX NS

- **Uncleaned packagings:**
- **Recommendation:**
Disposal must be made according to official regulations.
Dispose of as unused product.

14 Transport information

- **UN-Number**
- **DOT**
- **ADR, /MDG, IATA**
- **UN proper shipping name**
- **DOT**
- **ADR**
- **IMDG**
- **IATA**
- **Transport hazard class(es)**
- **DOT**
- **Class**
- **ADR**
- 
- **Class**
- **Label**
- **/MDG**
- 

- **Class**
- **Label**
- **IATA**
- 
- **Class**
- **Label**
- **Packing group**
- **DOT**

Non-Regulated Material
UN1993

Non-Regulated Material
UN1993 Flammable liquids, n.o.s. (Citrus Terpene)
FLAMMABLE LIQUID, N.O.S. (Citrus Terpene), MARINE
POLLUTANT
FLAMMABLE LIQUID, N.O.S. (Citrus Terpene)

Non-Regulated Material

3 (F1) Flammable liquids
3

3 Flammable liquids
3

3 Flammable liquids
3

Non-Regulated Material

(Contd. on page 10)

Safety Data Sheet (SDS)

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

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Trade name: VORTEX NS

- **ADR, IMDG, IATA** III
- **Environmental hazards:** Product contains environmentally hazardous substances: Citrus Terpene
- **Special precautions for user** Warning: Flammable liquids
- **Danger code (Kemler):** 30
- **EMS Number:** F-E, S-E
- **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":** UN1993, Flammable liquids, n.o.s. (Citrus Terpene), 3, 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.
- **Section 313 (Specific toxic chemical listings):**
None of the ingredients are listed.
- **TSCA (Toxic Substances Control Act):**
All ingredients are listed.
- **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.

(Contd. on page 11)

Safety Data Sheet (SDS)

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

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Trade name: VORTEX NS

- **Carcinogenic categories**
- **EPA (Environmental Protection Agency)**
None of the ingredients are listed.
- **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**



GHS02 GHS07 GHS08

- **Signal word** *Danger*
- **Hazard-determining components of labeling:**
Citrus Terpene
- **Hazard statements**
Flammable liquid and vapor.
Causes skin irritation.
May cause an allergic skin reaction.
May be fatal if swallowed and enters airways.
- **Precautionary statements**
Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Use explosion-proof electrical/ventilating/lighting/equipment.
Avoid breathing dust/fume/gas/mist/vapors/spray.
Wear protective gloves / eye protection / face protection.
Wear protective gloves.
Ground/bond container and receiving equipment.
Keep container tightly closed.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Wash thoroughly after handling.
Contaminated work clothing must not be allowed out of the workplace.
If swallowed: Immediately call a poison center/doctor.
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/ shower.
Specific treatment (see supplementary first aid instructions on this Safety Data Sheet).
Wash contaminated clothing before reuse.
If skin irritation occurs: Get medical advice/attention.
If skin irritation or rash occurs: Get medical advice/attention.
Do NOT induce vomiting.
In case of fire: Use for extinction: CO2, powder or water spray.
Take off contaminated clothing and wash it before reuse.
Store locked up.
Store in a well-ventilated place. Keep cool.

(Contd. on page 12)

Safety Data Sheet (SDS)

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

Reviewed on 05/07/2015

Trade name: VORTEX NS

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

· **National regulations:**

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

· **State Right to Know**

68647-72-3 Citrus Terpene

90-100%

Flam. Liq. 3, H226; Asp. Tox. 1, H304; Aquatic Acute 1, H400;
Aquatic Chronic 1, H410; Skin Irrit. 2, H315; Skin Sens. 1, H317

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

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)

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

Acute Tox. 4: Acute toxicity, Hazard Category 4

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

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

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

STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

Asp. Tox. 1: Aspiration hazard, Hazard Category 1

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

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

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