

SAFETY DATA SHEET



Health Emergencies: CHEMTREC® (800) 424-9300

1. PRODUCT AND COMPANY INFORMATION**Product Identity:** Nisus DSV™**Recommended use:** Disinfectant, virucide, sanitizer.**Manufacturer:** Nisus Corporation
100 Nisus Drive
Rockford, TN 37853**Telephone:** Phone: (800) 264-0870
Fax: (865) 577-5825**Emergency Phone:** 800-424-9300 (CHEMTREC)**SDS Date of Preparation:** 11/30/15**2. HAZARDS IDENTIFICATION****GHS Classification:**

| | |
|-----------------------------------|------------|
| Skin corrosion/irritation | Category 1 |
| Serious eye damage/eye irritation | Category 1 |

GHS Label Elements:**Signal Word:** Danger**Statements of Hazard**

Causes severe burns and eye damage.

Precautionary StatementsDo not breathe dust/fume/gas/mist/vapors/spray.
Wash face, hands and any exposed skin thoroughly after handling.
Wear protective gloves/protective clothing/eye protection/face protection.**3. COMPOSITION/INFORMATION ON INGREDIENTS**

| Component | CAS No. | Amount |
|---|----------------|--------|
| Alkyl (C ₁₂ -C ₁₆) dimethyl benzyl ammonium chloride | CAS 68424-85-1 | 2.200% |
| Octyl decyl dimethyl ammonium chloride | CAS 32426-11-2 | 1.650% |
| Dioctyl dimethyl ammonium chloride | CAS 5538-94-3 | 0.825% |
| Didecyl dimethyl ammonium chloride | CAS 7173-51-5 | 0.825% |
| Ethanol | CAS 64-17-5 | <1% |

4. FIRST AID MEASURES**IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor/physician.**IF ON SKIN (or hair):** Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a poison center or doctor/physician. Wash contaminated clothing before reuse.**IF INHALED:** Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a poison center or doctor/physician.**IF SWALLOWED:** Rinse mouth. Do NOT induce vomiting. Immediately call a poison center or doctor/physician.**Most important Symptoms:** Causes severe skin burns and eye damage.**Indication of immediate medical attention/special treatment: Note to Physician:** Treat symptomatically**5. FIRE FIGHTING MEASURES****Suitable (and Unsuitable) Extinguishing Media:** Dry chemical. Foam. Carbon dioxide (CO₂). Water spray (fog). Do not use water jet.
Specific hazards arising from the chemical: Not determined.
Hazardous Combustion Products: Toxic gases may be formed by fire.**Special Protective Equipment and Precautions for Fire-Fighting Instructions:** As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear**6. ACCIDENTAL RELEASE MEASURES****Personal Precautions and Protective Equipment:** Isolate hazard area and restrict access. Eliminate all ignition sources. Ventilate affected area. Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.**Methods and Materials for Containment and Cleaning Up:** Prevent further leakage or spillage if safe to do so. A vapor suppressing foam may be used to reduce vapors. Spill area may be slippery. Absorb or cover with dry earth, sand, or other non-combustible material and transfer to containers. Use clean non-sparking tools to collect absorbed material. Dispose of contents/container to an approved waste disposal plant.**7. HANDLING AND STORAGE****Precautions for Safe Handling:** Handle in accordance with good industrial hygiene and safety practice. Do not breathe dust/fume/gas/mist/vapors/spray. Wash face, hands, and any exposed skin thoroughly after handling. Wear protective gloves/protective clothing and eye/face protection.

Nonrefillable container. Do not reuse containers. Product residues in empty containers can be hazardous. Follow all SDS precautions when handling empty containers.

Conditions for Safe Storage, Including Any Incompatibilities:

Keep container tightly closed and store in a cool, dry and well-ventilated place. Store locked up. Strong oxidizers. Reducing agents

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Exposure Guidelines:**

| Chemical Name | ACGIH TLV | OSHA PEL | NIOSH IDLH |
|---------------------|-------------------|---|---|
| Proprietary Alcohol | STEL: 1000 ppm | TWA: 1000 ppm TWA: 1900 mg/m ³ (vacated) TWA: 1000 ppm (vacated) TWA: 1900 mg/m ³ | IDLH: 3300 ppm TWA: 1000 ppm TWA: 1900 mg/m ³ |

Engineering Controls: Use explosion proof equipment. Mechanical Exhaust. Showers. Eyewash stations.

Eye/Face Protection: Splash proof chemical safety goggles. Face shield. Refer to 29 CFR 1910.133 for eye and face protection regulations.

Skin and Body Protection: Wear rubber or neoprene gloves. Impervious apron. Refer to 29 CFR 1910.138 for appropriate skin and body protection.

Respiratory Protection: No protective equipment is needed under normal use conditions. Refer to 29 CFR 1910.134 for respiratory protection requirements.

General Hygiene Considerations: Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid

Appearance: Colorless to light straw liquid

Odor: Benzaldehyde

Odor Threshold: Not determined

pH: 12.4

Melting Point/Freezing Point: Not determined

Boiling Point/Boiling Range: Not determined

Flash Point: >94°C / 201°F

Evaporation Rate: Not determined

Flammability (Solid, Gas): Not determined

Upper Flammability Limits: Not determined

Lower Flammability Limit: Not determined

Vapor Pressure: Not determined

Vapor Density: Not determined

Specific Gravity: Not determined

Water Solubility: Soluble in water

Solubility in other solvents: Not determined

Partition Coefficient: Not determined

Auto-ignition Temperature: Not determined

Decomposition Temperature: Not determined

Kinematic Viscosity: Not determined

Dynamic Viscosity: Not determined

Explosive Properties: Not determined

Oxidizing Properties: Not determined

Density: 8.4 lbs/gal (Water=1)

10. STABILITY AND REACTIVITY

Reactivity: Not reactive under normal conditions.

Chemical Stability: Stable under recommended storage conditions.

Possibility of Hazardous Reactions: None under normal processing. Hazardous polymerization does not occur.

Conditions to Avoid: Heat, flames and sparks.

Incompatible Materials: Strong oxidizers. Reducing agents.

Hazardous Decomposition Products: Hydrogen chloride. Carbon oxides. Nitrogen oxides (NOx).

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Eye Contact: Causes severe eye damage.

Skin Contact: Causes severe skin burns.

Inhalation: Do not inhale.

Ingestion: Do not ingest.

Component information:

| Chemical Name | Oral LD ₅₀ | Dermal LD ₅₀ | Inhalation LC ₅₀ |
|----------------------|-----------------------|-------------------------|-----------------------------|
| Proprietary Chloride | = 426 mg/kg (Rat) | - | - |
| Proprietary Alcohol | = 7060 mg/kg (Rat) | - | = 124.7 mg/L (Rat) 4h |
| Proprietary Chloride | = 84 mg/kg (Rat) | - | - |

Information on physical, chemical and toxicological effects

Symptoms: Please see Section 4 of this SDS for symptoms.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Carcinogenicity: Ethanol has been shown to be carcinogenic in long-term studies only when consumed as an alcoholic beverage.

| Chemical Name | ACGIH | IARC | NTP | OSHA |
|---------------------|-------|---------|-------|------|
| Proprietary Alcohol | A3 | Group 1 | Known | X |

Legend:

ACGIH (American Conference of Government Industrial Hygienists)

A3 - Animal Carcinogen

IARC (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

NTP (National Toxicology Program)

Known - Known Carcinogen

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

X - Present

Numerical measures of toxicity: Not determined

12. ECOLOGICAL INFORMATION

Ecotoxicity: This product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Chemical Name: Proprietary Alcohol

Fish: 12.0 - 16.0: 96 h *Oncorhynchus mykiss* mL/L LC₅₀ static 13400 - 15100: 96 h *Pimephales promelas* mg/L LC₅₀ flow-through 100: 96 h *Pimephales promelas* mg/L LC₅₀ static

Toxicity to microorganisms: EC₅₀ = 34634 mg/L 30 min, EC₅₀ = 35470 mg/L 5 min

Crustacea: 9268 - 14221: 48 h *Daphnia magna* mg/L LC₅₀ 2: 48 h *Daphnia magna* mg/L EC₅₀ Static 10800: 24 h *Daphnia magna* mg/L EC₅₀

Persistence and Degradability: Not determined.

Bioaccumulative: Not determined.

Mobility: Not determined.

| Chemical Name | Partition Coefficient |
|---------------------|-----------------------|
| Proprietary Alcohol | -0.32 |

Other Adverse Effects: Not determined.

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Disposal of Wastes: Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated Packaging: Disposal should be in accordance with applicable regional, national and local laws and regulations.

| Chemical Name | California Hazardous Waste Status |
|---------------------|-----------------------------------|
| Proprietary Alcohol | Toxic, ignitable |

14. TRANSPORTATION INFORMATION

Note: Please see current shipping paper for most up-to-date shipping information, including exemptions and special circumstances.

DOT: Not regulated.

IATA: Not regulated.

IMOG: Not regulated.

15. REGULATORY INFORMATION

International Inventories:

| Chemical Name | Proprietary Chloride | Proprietary Chloride | Proprietary Alcohol | Proprietary Chloride |
|---------------|----------------------|----------------------|---------------------|----------------------|
| TSCA | Present | Present | Present | Present |
| DSL | X | X | X | X |
| NDSL | | | | |
| EINECS | Present | Present | Present | Present |
| ELINCS | | | | |
| ENCS | Present | | Present | Present |
| IECSC | X | X | X | X |
| KECL | Present | Present | Present | Present |
| PICCS | X | X | X | X |
| AICS | X | | X | X |

Legend:

TSCS – United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL – Canadian Domestic substances List/Non-Domestic Substances List
EINECS/ELINCS – European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS – Japan Existing and New Chemical Substances
IECSC – China Inventory of Existing Chemical Substances
KECL – Korean Existing and Evaluated Chemical Substances
PICCS – Philippines Inventory of Chemicals and Chemical Substances
AICS – Australian Inventory of Chemical Substances

US Federal Regulations

CERCLA: This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355).

SARA 313: Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

CWA (Clean Water Act): This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

US State Regulations

California Proposition 65: Ethyl alcohol is only considered a Proposition 65 developmental hazard when it is ingested as an alcoholic beverage.

| Chemical Name | California Proposition 65 |
|---------------------|---------------------------|
| Proprietary Alcohol | Carcinogen Developmental |

U.S. State Right-to-Know Regulations

| Chemical Name | New Jersey | Massachusetts | Pennsylvania |
|---------------------|------------|---------------|--------------|
| Proprietary Alcohol | X | X | X |

EPA Pesticide Registration Number: EPA Reg No 10324-80-64405

EPA Statement

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

EPA Pesticide Label

Signal Word: Danger

Hazardous to humans and domestic animals. Keep out of reach of children.

Difference between SDS and EPA pesticide label

| | EPA | OSHA |
|-----------------------------------|--------|---------------------------|
| Signal Word | Danger | Danger |
| Skin corrosion/irritation | N/A | Causes severe skin burns |
| Serious eye damage/eye irritation | N/A | Causes serious eye damage |

16. OTHER INFORMATION

NFPA Rating:

Health = 3 Flammability = 0 Instability = 0
Special Hazards = Not determined

HMIS Rating:

Health = 3 Flammability = 0 Physical Hazard = 0
Personal Protection = B

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