MATERIAL SAFETY DATA SHEET

Issue Date 9/05
Revised: 03/12

Nisus DSV

Health Emergencies: CHEMTREC® 1-800-424-9300

Section I: PRODUCT IDENTIFICATION

Manufacturer:	Nisus Corporation 100 Nisus Drive Rockford, TN 37853 800-264-0870 FAX: 865-577-5825
Trade Name:	Nisus DSV
EPA Registration No.	10324-80-64405
Chemical Family:	Quaternary Ammonium
Compound Formula:	$[R_1\text{-}N(CH_3)_2CH_2C_6H_5]^+Cl^-+[R_2\text{-}N(CH_3)_2CH_2C_6H_4C_2H_5]^+Cl^-$
C.A.S. No.:	(See Below)

Section II: HAZARDOUS INGREDIENTS

	Weight	TWA/TLV
Alkyl (C_{12}-C_{16}) dimethyl benzyl ammonium chloride (CAS 68424-85-1)	2.200%	ND
Octyl decyl dimethyl ammonium chloride (CAS 32426-11-2)	1.650%	ND
Dioctyl dimethyl ammonium chloride (CAS 5538-94-3)	0.825%	ND
Didecyl dimethyl ammonium chloride (CAS 7173-51-5)	0.825%	ND
Sodium Carbonate Soda Ash (CAS 497-19-8)	0.500%	ND
Tetrasodium ethylenediamine tetraacetate (CAS 64-02-8)	1.900%	ND
Polyethylene glycol 9 moles (CAS 68131-40-8)	2.500%	ND

Section III: PHYSICAL AND CHEMICAL CHARACTERISTICS (FIRE & EXPLOSION DATA)

Boiling Point: ND
pH: 12.4
Percent Volatile: (by weight) ND
Evaporation Rate: ND (Butyl Acetate=1)
Solubility In Water: Soluble
Vapor Pressure: ND
Appearance and Odor: Colorless to light straw in colorBenzaldehyde Odor
Density: 8.4 lbs./gallon (H_2O = 1)
Flash Point: over 200°F
Auto Ignition Temp.: ND
Lower Explosion (%): ND
Upper Explosion (%): ND
Extinguishing Media: Dry Chemical, Water Fog, CO_2, Foam
Special Fire Fighting Procedures: Cool fire exposed containers with spray, Must wear MSHA/NIOSH approved self contained breathing apparatus.
Unusual Fire Explosion Hazards: Explosive mixtures can form with air. Combustion products are toxic. Solvents vapors can travel to an ignition source and flash back.

Section IV: PHYSICAL HAZARDS

Stability: Stable
Conditions to avoid: NA
Incompatibility: Strong oxidizers or reducing agents
Conditions to avoid: Mixing with strong oxidizers or reducing agents
Hazardous Polymerization: Will not occur
Hazardous Decomposition Products: Toxic hydrogen chloride fumes, oxides of carbon and nitrogen.

Section V: HEALTH HAZARDS

Routes of Entry: Skin Contact, Inhalation, Eye Contact.
Inhalation: Irritation of mucous membrane can be caused by solvent vapors or mists of products. **Eye Contact:** Corrosive. Severe eye damage can result from direct contact. **Skin Contact:** Severe Irritation **Ingestion:** May be fatal. Burning pain in the mouth, throat, abdomen, severe swelling of the larynx, skeletal muscle paralysis affecting the ability to breathe, circulatory shock, convulsions.

First Aid

Skin and eye: In case of contact, immediately flush the eyes and skin with plenty of water for at least 15 minutes. For eyes, call a physician. Remove and wash contaminated clothing before reuse. **Ingestion:** If swallowed drink promptly, a large quantity of egg whites, gelatin solution or, if these are not available, drink large quantities of water. Avoid alcohol. Call a physician immediately. Note to Physician: Probable mucosal damage may contraindicate the use of gastric lavage.

Chemicals Listed as Carcinogen by:

OSHA	-NO
I.A.R.C. Monographs	-NO
National Toxicology Program	-NO

Section VI: TOXICITY

Acute Oral LD_{50} - 2.72g/kg. **Acute Dermal** – ND **Primary Skin** – Corrosive **Primary Eye** - Corrosive

Section VII: SPECIAL PROTECTION INFORMATION

Ventilation type: Mechanical (Explosion proof)
Respiratory Protection: None required if good ventilation is maintained. For mist or vapor wear NIOSH Approved respirator.
Protective Gloves: Rubber or Neoprene
Eye Protection: Splashproof safety goggles
Other Equipment: Impervious apron, eyewash facility, emergency shower, faceshield.

SECTION VIII: SPECIAL PRECAUTIONS AND SPILL/LEAK PROCEDURE

Handling and Storage: Keep from freezing. Store in original container. **Spill and Leak Procedure:** Remove ignition sources. Wear respirator. Small spills may be mopped up, flushed away with water or absorbed on some absorbent material and incinerated. Large spills should be contained; the material then moved into containers and disposed of by approved methods for hazardous wastes. **Waste Disposal:** Incinerate. Make sure that all federal, state and local regulations are observed.

SECTION XIV – TRANSPORTATION INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION
PROPER SHIPPING NAME: Consumer Commodity ORM-D
BULK SHIPPING: Contact manufacturer.