

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name DURAGUARD AEROSOL SAMPLE, CAN NC
Product Code 5014
Information on Manufacturer
 CHEMSEARCH DIV. OF NCH CORP.
 BOX 152170
 IRVING, TX 75015

Recommended Use Cleaning agent
Chemical Nature Petroleum distillates Amines Mixture
Emergency Telephone Number
 CHEMTREC® 800-424-9300

2. HAZARDS IDENTIFICATION

Emergency Overview

Danger
 Corrosive
 Harmful if inhaled and may cause delayed lung injury
 Causes skin burns
 Causes eye burns
 Harmful or fatal if swallowed

Color Yellow - Tan
Potential Health Effects
Principle Route of Exposure Skin contact, Eye contact, Inhalation.
Primary Routes of Entry Inhalation, Skin Absorption.
Acute Effects
Eyes Causes eye burns.
Skin Causes skin burns. May be absorbed through the skin in harmful amounts.
Inhalation Harmful by inhalation. Causes burns. Causes headache, drowsiness or other effects to the central nervous system.
Ingestion Ingestion causes burns of the upper digestive and respiratory tracts. May be fatal if swallowed.
Chronic Effects Liver and kidney injuries may occur. Inhaled corrosive substances can lead to a toxic edema of the lungs . Causes adverse cardiovascular effects. May cause irregular heartbeats, especially under conditions of stress.
Target Organ Effects Central nervous system, Kidney, Liver, Respiratory system, Heart.
Aggravated Medical Conditions Kidney disorders. Liver disorders. Skin disorders. Respiratory disorders. Neurological disorders.
Interactions with Other Chemicals Use of alcoholic beverages may enhance toxic effects.
Potential Environmental Effects See Section 12 for additional Ecological information

Physical State Liquid

Odor Amine-like

3. COMPOSITION / INFORMATION ON INGREDIENTS

Component	CAS-No
Butane	106-97-8
Morpholine	110-91-8
Calcium carbonate	471-34-1
Calcium Sulfonate	61789-86-4
Petroleum distillates, solvent-refined heavy paraffinic (<3% DMSO extractable)	64741-88-4
Petroleum distillates, solvent-refined light paraffinic (<3% DMSO extractable)	64741-89-5
Petroleum distillates, hydrotreated light	64742-47-8
Solvent naphtha (petroleum), medium aliphatic	64742-88-7
Isopropyl alcohol	67-63-0
Propane	74-98-6
Tall oil fatty acid morpholine salt	68002-77-7

4. FIRST AID MEASURES

General Advice Do not get in eyes, on skin, or on clothing. Do not breathe vapors or spray mist .
Eye Contact Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Get medical attention immediately.
Skin Contact Remove/Take off immediately all contaminated clothing. Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately. Wash contaminated clothing before re-use.
Inhalation Move to fresh air. In case of shortness of breath, give oxygen. If not breathing, give artificial respiration. Get medical attention immediately.
Ingestion Drink 1 or 2 glasses of water. Do not induce vomiting. Get medical attention immediately. Never give anything by mouth to an unconscious person.
Notes to Physician The product causes burns of eyes, skin and mucous membranes. Control of circulatory system, shock therapy if needed.

5. FIRE-FIGHTING MEASURES

Flash Point 110°F / 43°C
Autoignition Temperature No information available
Flammability Limits in Air Mixture
Suitable Extinguishing Media Water spray. Carbon dioxide (CO2). Foam. Dry chemical.
Specific Hazards Arising from the Chemical Solvent vapors are heavier than air and may spread along floors . Vapors may ignite and explode. Material can create slippery conditions. Flame extension: >18 inches / 45 cm and Burnback: 5 inches / 13 cm .
Protective Equipment and Precautions for Firefighters As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.
Aerosol Level (NFPA 30B) -

NFPA	Health	3	3	Flammability	4	Instability	0
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HMIS	Health	3	Flammability	4	Instability	0
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6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Remove all sources of ignition. Ensure adequate ventilation. Use personal protective equipment. Prevent further leakage or spillage if safe to do so. Material can create slippery conditions.
Environmental Precautions	Do not flush into surface water or sanitary sewer system.
Methods for Containment	Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13)
Methods for Cleaning Up	Pick up and transfer to properly labelled containers.
Neutralizing Agent	Not applicable

7. HANDLING AND STORAGE

Handling	Keep away from open flames, hot surfaces and sources of ignition. Do not get in eyes, on skin, or on clothing. Do not breathe vapors or spray mist .
Storage	Keep away from open flames, hot surfaces and sources of ignition.
Storage Temperature	Minimum 35°F / 2°C Maximum 120°F / 49°C
Storage Conditions	Indoor X Outdoor Maximum Heated Refrigerated

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH
Butane	TWA: 1000 ppm	no data available	TWA: 800 ppm TWA: 1900 mg/m ³
Morpholine	TWA: 20 ppm Skin	TWA: 20 ppm TWA: 70 mg/m ³ Skin	IDLH: 1400 ppm STEL 105 mg/m ³ STEL 30 ppm TWA: 20 ppm TWA: 70 mg/m ³
Calcium carbonate	No data available	TWA: 15 mg/m ³ TWA: 5 mg/m ³	TWA: 5 mg/m ³ TWA: 10 mg/m ³
Calcium Sulfonate	No data available	no data available	no data available
Petroleum distillates, solvent-refined heavy paraffinic (<3% DMSO extractable)	TWA: 5 mg/m ³ STEL: 10 mg/m ³	TWA: 5 mg/m ³	IDLH: 2500 mg/m ³ STEL: 10 mg/m ³ TWA: 5 mg/m ³
Petroleum distillates, solvent-refined light paraffinic (<3% DMSO extractable)	TWA: 5 mg/m ³ STES: 10 mg/m ³	TWA: 5 mg/m ³	IDLH: 2500 mg/m ³ STEL: 10mg/m ³ TWA: 5 mg/m ³
Petroleum distillates, hydrotreated light	No data available	no data available	no data available
Solvent naphtha (petroleum), medium aliphatic	No data available	no data available	no data available
Isopropyl alcohol	TWA: 200 ppm STEL: 400 ppm	TWA: 400 ppm TWA: 980 mg/m ³	IDLH: 2000 ppm STEL: 1225 mg/m ³ STEL 500 ppm TWA: 980 mg/m ³ TWA: 400 ppm
Propane	TWA: 1000 ppm	TWA: 1000 ppm TWA: 1800 mg/m ³	IDLH: 2100 ppm TWA: 1000 ppm TWA: 1800 mg/m ³
Tall oil fatty acid morpholine salt	No data available	no data available	no data available

Engineering Measures	Use with local exhaust ventilation. Ensure adequate ventilation, especially in confined areas.
Personal Protective Equipment	
Eye/Face Protection	Tightly fitting safety goggles. Face-shield.
Skin Protection	Impervious gloves. Impervious clothing.
Respiratory Protection	Use NIOSH approved respiratory protection.
General Hygiene Considerations	Ensure that eyewash stations and safety showers are close to the workstation location. Wear protective gloves/clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid	Viscosity	Slight Viscous
Color	Yellow - Tan	Odor	Amine-like
Appearance	Opaque	pH	Not applicable
Specific Gravity	0.805	Bulk Density	No data available
Evaporation Rate	24.4	Percent Volatile (Volume)	76.3
VOC Content (%)	63.1	Vapor Pressure	1490 mmHg @ 70 °F
Vapor Density	1.7	Solubility	Negligible
Boiling Point/Range	320°F / 160°C		

10. STABILITY AND REACTIVITY

Chemical Stability	Stable. Hazardous polymerization does not occur .
Conditions to Avoid	Keep away from open flames, hot surfaces, and sources of ignition.
Incompatible Products	Strong oxidizing agents. Reducing agents. Strong acids. Bases.
Hazardous Decomposition Products	Carbon oxides. Nitrogen oxides (NOx). Sulfur oxides . Aldehydes . Ketones. Organic acids. Peroxides.
Possibility of Hazardous Reactions	None under normal processing

11. TOXICOLOGICAL INFORMATION

Product Information	No information available
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Component Information

Acute toxicity

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation	Draize Test	Other
Butane	no data available	no data available	658 mg/L (Rat) 4 h	no data available	no data available
Morpholine	1050 mg/kg (Rat)	310 mg/kg (Rabbit)	no data available	no data available	no data available
Calcium carbonate	6450 mg/kg (Rat)	no data available	no data available	no data available	no data available
Calcium Sulfonate	5000 mg/kg (Rat)	4000 mg/kg (Rabbit)	no data available	no data available	no data available
Petroleum distillates, solvent-refined heavy paraffinic (<3% DMSO extractable)	5000 mg/kg (Rat)	2000 mg/kg (Rabbit)	2.18 mg/L (Rat) 4 h	no data available	no data available
Petroleum distillates, solvent-refined light paraffinic (<3% DMSO extractable)	5000 mg/kg (Rat)	2000 mg/kg (Rabbit)	2.18 mg/L (Rat) 4 h	no data available	no data available
Petroleum distillates, hydrotreated light	5000 mg/kg (Rat)	2000 mg/kg (Rabbit)	5.2 mg/L (Rat) 4 h	no data available	no data available
Solvent naphtha (petroleum), medium aliphatic	5000 mg/kg (Rat)	3000 mg/kg (Rabbit)	5.28 mg/L (Rat) 4 h	no data available	no data available
Isopropyl alcohol	4396 mg/kg (Rat)	12800 mg/kg (Rat) 12870 mg/kg (Rabbit)	72.6 mg/L (Rat) 4 h	no data available	no data available
Propane	no data available	no data available	658 mg/L (Rat) 4 h	no data available	no data available
Tall oil fatty acid morpholine salt	no data available	no data available	no data available	no data available	no data available

Chronic Toxicity

Component	Mutagenicity	Sensitization	Developmental Toxicity	Reproductive Toxicity	Target Organ Effects
Butane	no data available	no data available	no data available	no data available	CNS, liver, heart
Morpholine	no data available	no data available	no data available	no data available	skin, eyes, respiratory system, liver, kidneys
Calcium carbonate	no data available	no data available	no data available	no data available	respiratory system, skin, eyes
Calcium Sulfonate	no data available	no data available	no data available	no data available	no data available
Petroleum distillates, solvent-refined heavy paraffinic (<3% DMSO extractable)	no data available	no data available	no data available	no data available	no data available
Petroleum distillates, solvent-refined light paraffinic (<3% DMSO extractable)	no data available	no data available	no data available	no data available	no data available
Petroleum distillates, hydrotreated light	no data available	no data available	no data available	no data available	CNS, cardiovascular system
Solvent naphtha (petroleum), medium aliphatic	no data available	no data available	no data available	no data available	CNS, liver, kidneys
Isopropyl alcohol	no data available	no data available	no data available	no data available	eyes, skin, respiratory system, kidney
Propane	no data available	no data available	no data available	no data available	CNS, liver, heart
Tall oil fatty acid morpholine salt	no data available	no data available	no data available	no data available	no data available

Carcinogenicity

Component	ACGIH	IARC
Butane	not applicable	not applicable
Morpholine	not applicable	not applicable
Calcium carbonate	not applicable	not applicable
Calcium Sulfonate	not applicable	not applicable
Petroleum distillates, solvent-refined heavy paraffinic (<3% DMSO extractable)	not applicable	not applicable
Petroleum distillates, solvent-refined light paraffinic (<3% DMSO extractable)	not applicable	not applicable
Petroleum distillates, hydrotreated light	not applicable	not applicable
Solvent naphtha (petroleum), medium aliphatic	not applicable	not applicable
Isopropyl alcohol	not applicable	not applicable
Propane	not applicable	not applicable
Tall oil fatty acid morpholine salt	not applicable	not applicable

Component	NTP	OSHA	Other
Butane	not applicable	not applicable	not applicable
Morpholine	not applicable	not applicable	not applicable
Calcium carbonate	not applicable	not applicable	not applicable
Calcium Sulfonate	not applicable	not applicable	not applicable
Petroleum distillates, solvent-refined heavy paraffinic (<3% DMSO extractable)	not applicable	not applicable	not applicable
Petroleum distillates, solvent-refined light paraffinic (<3% DMSO extractable)	not applicable	not applicable	not applicable
Petroleum distillates, hydrotreated light	not applicable	not applicable	not applicable
Solvent naphtha (petroleum), medium aliphatic	not applicable	not applicable	not applicable
Isopropyl alcohol	not applicable	not applicable	not applicable
Propane	not applicable	not applicable	not applicable
Tall oil fatty acid morpholine salt	not applicable	not applicable	not applicable

12. ECOLOGICAL INFORMATION

Product Information

No information available

Component Information

Component	Toxicity to Algae	Toxicity to Fish	Microtox	Water Flea	log Pow
Butane	no data available	no data available	no data available	no data available	2.89
Morpholine	EC50= 28.0 mg/L <i>Chlorella vulgaris</i> 96 h EC50= 28.0 mg/L <i>Selenastrum capricornutum</i> 96 h	LC50= 350.0 mg/L <i>Lepomis macrochirus</i> 96 h	EC50 = 57.0 mg/L 30 min	EC50 = 100.0 mg/L 24 h	-2.55
Calcium carbonate	no data available	no data available	no data available	no data available	N/A
Calcium Sulfonate	no data available	LC50 5.7 - 9.7 mg/L <i>Pimephales promelas</i> 96 h	no data available	EC50 6.2 - 12 mg/L 48 h	N/A
Petroleum distillates, solvent-refined heavy paraffinic (<3% DMSO extractable)	no data available	LC50> 5000 mg/L <i>Oncorhynchus mykiss</i> 96 h	no data available	EC50 > 1000 mg/L 48 h	N/A
Petroleum distillates, solvent-refined light paraffinic (<3% DMSO extractable)	no data available	LC50> 5000 mg/L <i>Oncorhynchus mykiss</i> 96 h	no data available	EC50 > 1000 mg/L 48 h	N/A
Petroleum distillates, hydrotreated light	no data available	LC50= 1740 mg/L <i>Lepomis macrochirus</i> 96 h LC50= 45 mg/L <i>Pimephales promelas</i> 96 h	no data available	LC50 = 4720 mg/L 96 h	N/A
Solvent naphtha (petroleum), medium aliphatic	EC50= 450 mg/L <i>Selenastrum capricornutum</i> 96 h	LC50= 800 mg/L <i>Pimephales promelas</i> 96 h	no data available	EC50 > 100 mg/L 48 h	N/A
Isopropyl alcohol	EC50> 1000 mg/L <i>Scenedesmus subspicatus</i> 72 h EC50> 1000 mg/L <i>Scenedesmus</i>	LC50= 61200 mg/L <i>Pimephales promelas</i> 96 h LC50= 94900 mg/L <i>Pimephales promelas</i> 96 h LC50= 9640 mg/L <i>Pimephales promelas</i> 96 h	EC50 = 35390 mg/L 5 min	EC50 = 13299 mg/L 48 h	0.05

	subspicatus 96 h				
Propane	no data available	no data available	no data available	no data available	2.3
Tall oil fatty acid morpholine salt	no data available	no data available	no data available	no data available	N/A

Persistence and Degradability No information available
Bioaccumulation No information available
Mobility No information available

13. DISPOSAL CONSIDERATIONS

Product Disposal Dispose of as hazardous waste in compliance with local and national regulations
Container Disposal Empty containers should be taken for local recycling, recovery or waste disposal

14. TRANSPORT INFORMATION

DOT
Proper Shipping Name Consumer commodity
Hazard Class ORM-D
Description Consumer commodity ,ORM-D,

TDG
Proper shipping name Aerosols
Hazard Class 2.1
UN-No UN1950
Description AEROSOLS,2.1,UN1950

ICAO
UN-No UN1950
Proper Shipping Name Aerosols
Hazard Class 2.1
Shipping Description Aerosols,UN1950

IATA
UN-No UN1950
Proper Shipping Name Aerosols, flammable
Hazard Class 2.1
ERG Code 10L
Shipping Description UN1950,Aerosols, flammable,2.1

IMDG/IMO
Proper Shipping Name Aerosols
Hazard Class 2
UN-No UN1950
EmS No. F-D, S-U
Shipping Description UN1950, Aerosols,2

15. REGULATORY INFORMATION

Inventories
TSCA Complies
DSL Complies

U.S. Federal Regulations
SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40n of the Code of Federal Regulations, Part 372:

Component	CAS-No	Weight %	SARA 313 - Threshold Values
Isopropyl alcohol	67-63-0	1-5	1.0

SARA 311/312 Hazardous Categorization

Acute Health Hazard	Chronic Health Hazard	Fire Hazard	Sudden Release of Pressure Hazard	Reactive Hazard
Yes	Yes	Yes	Yes	No

CERCLA

Component	Hazardous Substances RQs	CERCLA EHS RQs
Butane	Not applicable	Not applicable
Morpholine	Not applicable	Not applicable
Calcium carbonate	Not applicable	Not applicable
Calcium Sulfonate	Not applicable	Not applicable
Petroleum distillates, solvent-refined heavy paraffinic (<3% DMSO extractable)	Not applicable	Not applicable
Petroleum distillates, solvent-refined light paraffinic (<3% DMSO extractable)	Not applicable	Not applicable
Petroleum distillates, hydrotreated light	Not applicable	Not applicable
Solvent naphtha (petroleum), medium aliphatic	Not applicable	Not applicable
Isopropyl alcohol	Not applicable	Not applicable
Propane	Not applicable	Not applicable
Tall oil fatty acid morpholine salt	Not applicable	Not applicable

Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

WHMIS Hazard Class

B5 Flammable aerosol, A Compressed gases, E Corrosive material , D2B Toxic materials .



16. OTHER INFORMATION

Prepared By	Mike McDowell
Supersedes Date	03/06/2006
Issuing Date	10/14/2008
Reason for Revision	No information available
Glossary	No information available
List of References	No information available

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