Supercedes Date 07/25/2008 **Issuing Date** 06/28/2011

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name DRI-GARD PLUS AEROSOL
Product Code 5438
Recommended use Lubricant
Chemical nature Alcoholic solution

Information on Manufacturer
MANTEK, DIVISION OF NCH CORP.
BOX 152170
IRVING, TEXAS 75015

Emergency Telephone Number
CHEMTREC 1-800-424-9300

2. HAZARDS IDENTIFICATION

Emergency Overview
DANGER
Extremely flammable
May be harmful if inhaled
May cause skin irritation
Causes eye irritation
Harmful or fatal if swallowed
Contents under pressure

Color dark gray **Physical State** Liquid **Odor** Alcoholic

Potential Health Effects

Principle Route of Exposure Inhalation, Skin contact, Eye contact.
Primary Routes of Entry Inhalation, Skin Absorption.
Acute Effects
Eyes Causes eye irritation.
Skin May cause skin irritation. Repeated exposure may cause skin dryness or cracking.
Inhalation May cause irritation of respiratory tract. Inhalation may cause central nervous system effects. May cause central nervous system depression. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness.
Ingestion Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Causes headache, drowsiness or other effects to the central nervous system. Aspiration hazard if swallowed - can enter lungs and cause damage. May be fatal if swallowed and enters airways.
Chronic Toxicity Ingestion may cause lowering of blood pressure. Liver and kidney injuries may occur.
Target Organ Effects Respiratory system, Central nervous system, Liver, Kidney, Heart, Blood, Skin, Eyes, Bone, Ears.
Aggravated Medical Conditions Respiratory disorders, Skin disorders, Liver disorders, Kidney disorders, Blood disorders, Neurological disorders, Heart disease.
Potential Environmental Effects See Section 12 for additional Ecological information.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Component	CAS-No
Isopropyl alcohol	67-63-0
Butane	106-97-8
Propane	74-98-6
Molybdenum disulfide	1317-33-5
Ethylcellulose	9004-57-3
Urea	57-13-6
Petroleum naphtha, light aromatic	64742-95-6
Pseudocumene	95-63-6
1,3,5-Trimethylbenzene	108-67-8

4. FIRST AID MEASURES

General Advice Avoid breathing vapors, mist, or gas. Avoid contact with skin, eyes and clothing.
Eye Contact Rinse thoroughly with plenty of water, also under the eyelids. Get medical attention if irritation develops and persists.
Skin Contact Wash off immediately with soap and plenty of water. Get medical attention if irritation develops and persists.
Inhalation If inhaled, remove to fresh air. Get medical attention if symptoms occur.
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 Aspiration hazard if swallowed - can enter lungs and cause damage.

5. FIRE-FIGHTING MEASURES

Flash Point 47 °F / 8 °C **Method** Seta closed cup
Autoignition Temperature No information available.
Flammability Limits in Air % Mixture. **Upper** 12.7 **Lower** 1.8
Suitable Extinguishing Media
Water spray. Carbon dioxide (CO2). Foam. Alcohol-resistant foam. Dry chemical. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Specific hazards arising from the chemical
Solvent vapors are heavier than air and may spread along floors. Vapors may ignite and explode. Flame extension: >36 inches / >91.4 cm and Burnback: 6 inches / 15 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) - 3
NFPA **Health** 2 **Flammability** 4 **Instability** 0

HMIS **Health** 2 **Flammability** 4 **Instability** 0

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 Use clean non-sparking tools to collect absorbed material. Pick up and transfer to properly labeled containers.

Neutralizing Agent Not applicable.

7. HANDLING AND STORAGE

Handling Keep away from open flames, hot surfaces and sources of ignition. Avoid breathing vapors, mist or gas. Avoid contact with skin, eyes and clothing.

Storage Keep away from heat and sources of ignition.

Storage Temperature **Minimum** 35 °F / 2 °C **Maximum** 120 °F / 49 °C

Storage Conditions **Indoor** X **Outdoor** **Heated** **Refrigerated**

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH
Isopropyl alcohol	TWA: 200 ppm STEL: 400 ppm	TWA: 400 ppm TWA: 980 mg/m^3	IDLH: 2000 ppm STEL 500 ppm STEL 1225 mg/m^3 TWA: 400 ppm TWA: 980 mg/m^3
Butane	TWA: 1000 ppm	No data available	TWA: 800 ppm TWA: 1900 mg/m^3
Propane	TWA: 1000 ppm	TWA: 1000 ppm TWA: 1800 mg/m^3	IDLH: 2100 ppm TWA: 1000 ppm TWA: 1800 mg/m^3
Molybdenum disulfide	TWA: 10 mg/m^3 TWA: 3 mg/m^3	TWA: 15 mg/m^3	IDLH: 5000 mg/m^3
Ethylcellulose	No data available	No data available	No data available
Urea	No data available	No data available	No data available
Petroleum naphtha, light aromatic	No data available	No data available	No data available
Pseudocumene	No data available	No data available	TWA: 25 ppm TWA: 125 mg/m^3
1,3,5-Trimethylbenzene	No data available	No data available	TWA: 25 ppm TWA: 125 mg/m^3

Engineering Measures Use with local exhaust ventilation. Ensure adequate ventilation, especially in confined areas.

Personal Protective Equipment

Eye/Face Protection Safety glasses with side-shields.

Skin Protection Wear suitable protective clothing, Impervious gloves.

Respiratory Protection In case of inadequate ventilation wear respiratory protection. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

General Hygiene Considerations Ensure that eyewash stations and safety showers are close to the workstation location. Remove and wash contaminated clothing before re-use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid	**Viscosity**	Slightly Viscous
Color	dark gray	**Odor**	Alcoholic
Appearance	Opaque	**pH**	Not applicable
Specific Gravity	0.817	**Evaporation Rate**	52.2 (Butyl acetate=1)
Percent Volatile (Volume)	100	**VOC Content (%)**	100
VOC Content (g/L)	817	**Vapor Pressure**	1302 mmHg @ 70°F
Vapor Density	1.9 (Air = 1.0)	**Solubility**	Dispersible
Boiling Point/Range	180 °F / 82 °C		

10. STABILITY AND REACTIVITY

Chemical Stability Stable. Hazardous polymerization does not occur.

Conditions to Avoid Heat, flames, and sparks

Incompatible Products Strong oxidizing agents, Acids, Bases, Aldehydes, Ketones, Halogenated hydrocarbon.

Hazardous Decomposition Products Carbon oxides, Nitrogen oxides (NOx), Sulfur oxides.

Possibility of Hazardous Reactions None under normal processing

11. TOXICOLOGICAL INFORMATION

Product Information No information available.

Component Information

Acute Toxicity

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation	Draize Test	Other
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
Butane	no data available	no data available	658 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

Molybdenum disulfide	no data available	no data available	> 2820 mg/m3 (Rat) 4 h	no data available	no data available
Ethylcellulose	> 5 g/kg (Rat)	> 5 g/kg (Rabbit)	no data available	no data available	no data available
Urea	8471 mg/kg (Rat)	no data available	no data available	no data available	no data available
Petroleum naphtha, light aromatic	8400 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	3400 ppm (Rat) 4 h > 5.2 mg/L (Rat) 4 h	no data available	no data available
Pseudocumene	3400 mg/kg (Rat)	> 3160 mg/kg (Rabbit)	18 g/m3 (Rat) 4 h	no data available	no data available
1,3,5-Trimethylbenzene	5000 mg/kg (Rat)	no data available	24 g/m3 (Rat) 4 h	no data available	no data available

Chronic Toxicity

Component	Mutagenicity	Sensitization	Developmental Toxicity	Reproductive Toxicity	Target Organ Effects
Isopropyl alcohol	no data available	no data available	no data available	no data available	eyes, respiratory system, skin, liver, kidney, CNS
Butane	no data available	no data available	no data available	no data available	CNS
Propane	no data available	no data available	no data available	no data available	CNS
Molybdenum disulfide	no data available	no data available	no data available	no data available	respiratory system, kidneys, eyes, blood, bones, joints
Ethylcellulose	no data available	no data available	no data available	no data available	no data available
Urea	no data available	no data available	no data available	no data available	no data available
Petroleum naphtha, light aromatic	no data available	no data available	no data available	no data available	CNS
Pseudocumene	no data available	no data available	no data available	no data available	eyes, CNS, respiratory system, skin, blood, ears, heart
1,3,5-Trimethylbenzene	no data available	no data available	no data available	no data available	eyes, CNS, respiratory system, skin, blood, ears, heart

Carcinogenicity

Component	ACGIH	IARC	NTP	OSHA	Other
Isopropyl alcohol	not applicable	not applicable	not applicable	not applicable	not applicable
Butane	not applicable	not applicable	not applicable	not applicable	not applicable
Propane	not applicable	not applicable	not applicable	not applicable	not applicable
Molybdenum disulfide	not applicable	not applicable	not applicable	not applicable	not applicable
Ethylcellulose	not applicable	not applicable	not applicable	not applicable	not applicable
Urea	not applicable	not applicable	not applicable	not applicable	not applicable
Petroleum naphtha, light aromatic	not applicable	not applicable	not applicable	not applicable	not applicable
Pseudocumene	not applicable	not applicable	not applicable	not applicable	not applicable
1,3,5-Trimethylbenzene	not applicable	not applicable	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
Isopropyl alcohol	EC50 > 1000 mg/L Desmodesmus subspicatus 72 h EC50 > 1000 mg/L Desmodesmus subspicatus 96 h	LC50 11130 mg/L Pimephales promelas 96 h LC50 9640 mg/L Pimephales promelas 96 h LC50 > 1400000 µg/L Lepomis macrochirus 96 h	EC50 = 35390 mg/L 5 min	EC50 13299 mg/L 48 h	0.05
Butane	no data available	no data available	no data available	no data available	2.89
Propane	no data available	no data available	no data available	no data available	2.3
Molybdenum disulfide	no data available	no data available	no data available	no data available	N/A
Ethylcellulose	no data available	no data available	no data available	no data available	N/A
Urea	no data available	LC50 16200-18300 mg/L Poecilia reticulata 96 h	EC50 = 23914 mg/L 5 min	EC50 3910 mg/L 48 h EC50> 10000 mg/L 24 h	-1.59
Petroleum naphtha, light aromatic	no data available	LC50 9.22 mg/L Oncorhynchus mykiss 96 h	no data available	EC50 6.14 mg/L 48 h	N/A
Pseudocumene	no data available	LC50 7.19-8.28 mg/L Pimephales promelas 96 h	no data available	EC50 6.14 mg/L 48 h	3.63
1,3,5-Trimethylbenzene	no data available	LC50 3.48 mg/L Pimephales promelas 96 h	no data available	EC50 50 mg/L 24 h	N/A

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

13. DISPOSAL CONSIDERATIONS

Product Disposal Dispose of in accordance with local regulations.
Container Disposal Contents under pressure. Do not puncture. Empty remaining contents. 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 LTD. QTY.

ICAO

UN-No UN1950
Proper Shipping Name Aerosols

Hazard Class 2.1
Shipping Description Aerosols,UN1950 2.1 LTD. QTY.

IATA

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

IMDG/IMO

Proper Shipping Name Aerosols
Hazard Class 2
UN-No UN1950
EmS No. F-D, S-U
Shipping Description UN1950, Aerosols,2.1 LTD QTY.

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	40-70	1.0
Pseudocumene	95-63-6	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
Isopropyl alcohol	Not applicable	Not applicable
Butane	Not applicable	Not applicable
Propane	Not applicable	Not applicable
Molybdenum disulfide	Not applicable	Not applicable
Ethylcellulose	Not applicable	Not applicable
Urea	Not applicable	Not applicable
Petroleum naphtha, light aromatic	Not applicable	Not applicable
Pseudocumene	Not applicable	Not applicable
1,3,5-Trimethylbenzene	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
A Compressed gases, B5 Flammable aerosol, D2B Toxic materials.

16. OTHER INFORMATION

Prepared By Dan Hollas
Supercedes Date 07/25/2008
Issuing Date 06/28/2011
Reason for Revision No information available.
Glossary No information available.
List of References. No information available.

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