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Material Safety Data Sheet

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1 Product Identification

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Tradename:

3M AVAGARD(TM)D INSTANT HAND ANTISEPTIC WITH MOISTURIZERS P.N.  
 9221C, 9222C

Product ID:

CT-0608-2489-8 CT-0608-2450-6 42-0020-4951-0 42-0020-4952-8  
 70-2007-2261-2 70-2007-3500-2 70-2007-3501-0 70-2007-2262-0  
 LE-BMRT-NLH5-4

Intended Use of Product:

Hand Sanitizer/Prep

Division:

MEDICAL DIVISION

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2 Composition/Information on Ingredients

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Ingredient Name	CAS Number	Percentage
ETHYL ALCOHOL W/W	64-17-5	60 - 70
WATER	7732-18-5	25 - 35
POLYETHYLENE GLYCOL	25322-68-3	1 - 3
FATTY ACIDS, C18-UNSATD., DIMERS, HYDROGENATED, DI-ISO-PR ESTERS	103213-20-3	1 - 2
SQUALANE	111-01-3	1 - 2
ALCOHOLS	26636-40-8	1 - 2
DOCOSYL ALCOHOL	661-19-8	1 - 2

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Ingredient Statements:

DIN 02242852

NOTE:

Each percentage is expressed as the ratio of the weight of the ingredient to the weight of the controlled product.

3 Hazards Identification

Critical Hazards:

Extremely flammable liquid and vapour.

Moderate Eye Irritation: Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

May be absorbed following inhalation and cause target organ effects.

May be absorbed following ingestion and cause target organ effects.

See Sections 7 and 11 for further information.

4 First Aid Measures

Instructions for Eye Contact:

Flush eyes with large amounts of water. If signs/symptoms persist, get medical attention.

Instructions for Skin Contact:

No need for first aid is anticipated.

Instructions for Inhalation:

Remove person to fresh air. If signs/symptoms develop, get medical attention.

Instructions for Ingestion:

Do not induce vomiting unless instructed to do so by medical personnel. Give victim two glasses of water. Never give anything by mouth to an unconscious person. Get medical attention.

5 Fire Fighting Measures

Flash point:

21 C

Lower Explosive Limit (%):

3.28 % by volume

Upper Explosive Limit (%):

19 % by volume

Autoignition temperature:

798.9 C

Suitable Extinguishing Media:

Use fire extinguishers with class B extinguishing agents (e.g., dry chemical, carbon dioxide).

Exposure Hazards during Fire:

Vapours may travel long distances along the ground or floor to an ignition source and flash back. Closed containers exposed to heat from fire may build pressure and explode.

Combustion Products from Fire:

Carbon monoxide - During Combustion;

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Carbon dioxide - During Combustion;

Fire Fighting Procedures:

Wear full protective equipment (Bunker Gear) and a self-contained breathing apparatus (SCBA). Water may not effectively extinguish fire; however, it should be used to keep fire-exposed containers and surfaces cool and prevent explosive rupture.

NFPA: Health	1
NFPA: Fire	3
NFPA: Reactivity	0
NFPA: Unusual Reaction Hazard	none

6 Accidental Release Measures

Personal Precautions:

Refer to other sections of this MSDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment. Call 3M-HELPS line (1-800-364-3577) for more information on handling and managing the spill.

Spill Response:

Evacuate unprotected and untrained personnel from hazard area. The spill should be cleaned up by qualified personnel. Remove all ignition sources such as flames, smoking tools, and electrical spark sources. Use only non-sparking tools. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Warning! A motor could be an ignition source and could cause flammable gases or vapors in the spill area to burn or explode. Contain spill. For larger spills, cover drains and build dikes to prevent entry into sewer systems or bodies of water. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Cover spill area with a fire-extinguishing foam designed for use on solvents, such as alcohols and acetone, that can dissolve in water. An AR - AFFF type foam is recommended. Remember, adding an absorbent material does not remove a toxic, corrosivity or flammability hazard. Collect as much of the spilled material as possible using non-sparking tools. Clean up residue with an appropriate solvent selected by a qualified and authorized person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and MSDS. Collect the resulting residue containing solution. Place in a metal container approved for transportation by appropriate authorities. Seal the container. Dispose of collected material as soon as possible.

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7 Handling and Storage

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Storage Requirements:

Keep container tightly closed.

## Incompatible Materials:

Store away from heat;

## Ventilation:

No data available.

## Fire Prevention:

Extremely flammable liquid and vapour. No smoking while handling this material.

## Explosion Prevention:

Flammable liquid and vapour. Keep away from heat, sparks, open flame, pilot lights and other sources of ignition.

## Use Instructions:

Avoid eye contact. Do not ingest.

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8 Exposure Controls/Personal Protection  
-----Personal Protection  
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## Eye Protection:

Avoid eye contact.

## Hand Protection:

Not applicable.

## Skin Protection:

Not applicable.

## Respiratory Protection:

Under normal use conditions, airborne exposures are not expected to be significant enough to require respiratory protection.

## Ingestion (Prevention):

Do not ingest.

Keep out of the reach of children.

## Recommended Ventilation:

Use in a well-ventilated area.

Ingredient Exposure Data  
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## ETHYL ALCOHOL W/W (64-17-5)

LD50 (rat, oral)

7060 mg/kg

LC50 (rat, inhalation/4 hours)

No data available.

## Exposure Limits

ACGIH: TWA 1880 mg/m<sup>3</sup> (Table A4)

ACGIH: TWA 1000 ppm (Table A4)

## WATER (7732-18-5)

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LD50 (rat, oral)

&gt; 90 ml/kg

LC50 (rat, inhalation/4 hours)

No data available.

## Exposure Limits

No data available.

## POLYETHYLENE GLYCOL (25322-68-3)

LD50 (rat, oral)	600 mg/kg
LC50 (rat, inhalation/4 hours)	No data available.
Exposure Limits	
AIHA: TWA 10 mg/m3 as aerosol;	
FATTY ACIDS, C18-UNSATD., DIMERS, HYDROGENATED, DI-ISO-PR ESTERS (103213-20-3)	
LD50 (rat, oral)	No data available.
LC50 (rat, inhalation/4 hours)	No data available.
Exposure Limits	
No data available.	
SQUALANE (111-01-3)	
LD50 (rat, oral)	No data available.
LC50 (rat, inhalation/4 hours)	No data available.
Exposure Limits	
No data available.	
ALCOHOLS (26636-40-8)	
LD50 (rat, oral)	No data available.
LC50 (rat, inhalation/4 hours)	No data available.
Exposure Limits	
No data available.	
DOCOSYL ALCOHOL (661-19-8)	
LD50 (rat, oral)	No data available.
LC50 (rat, inhalation/4 hours)	No data available.
Exposure Limits	
No data available.	

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## 9 Physical and Chemical Properties

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Physical form,Color,Odour:	Liquid; viscous liquid; White; slight alcohol odour
Odour Threshold:	No data available.
pH:	6
Boiling point/boiling range:	77.8 C
Melting point/melting range:	Not applicable
Vapour pressure:	No data available.
Water Solubility:	Moderate
Specific gravity:	0.83 Water=1
Vapour density:	1.6 Air=1
Volatile organic compounds:	496 gms/liter
Evaporation rate:	1.4 BuOAc=1
Viscosity:	50000 - 250000 centipoise
Percent Volatile:	90 % by weight

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## 10 Stability and Reactivity

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Conditions to Avoid:  
Heat;

Materials to Avoid:  
None known.

Hazardous Decomposition:

Carbon monoxide - During Combustion;  
 Carbon dioxide - During Combustion;  
 Stability and Reactivity:  
 Stable. Hazardous polymerization will not occur.

## 11 Toxicological Information

### Effects from Eye Contact:

Moderate Eye Irritation: Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

### Effects from Skin Contact:

No health effects are expected.

### Effects from Inhalation:

May be absorbed following inhalation and cause target organ effects.

Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

### Effects from Ingestion:

May be absorbed following ingestion and cause target organ effects.

Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

### Sensitization Information:

No data available.

### Carcinogenicity:

Note: This product contains ethanol. In IARC published Monograph No. 44, entitled, 'Alcohol Drinking', the carcinogenicity of ethanol was determined based on chronic exposure to ethanol through human consumption of alcoholic beverages. This is not an expected effect during the foreseeable use of this product.

### Mutagenicity:

No data available.

### Reproductive Effects:

WARNING: This product contains ethanol. Ethanol is listed under Proposition 65 as a reproductive hazard through human consumption of alcoholic beverages. This is not an expected effect during the foreseeable use of this product. Ethanol in alcoholic beverages can cause birth defects or other reproductive harm.

### Component Based Information:

No data available.

### Product Based Information:

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No data available.

### Other Effects & Information:

Central Nervous System (CNS) Depression: Signs/symptoms may include headache, dizziness, drowsiness, incoordination, nausea, slowed reaction time, slurred speech, giddiness, and unconsciousness.

Prolonged or repeated exposure may cause: Liver Effects:

Signs/symptoms may include loss of appetite, weight loss, fatigue, weakness, abdominal tenderness and jaundice.

## 12 Ecological Information



Product Certifications:

The components of this product are in compliance with the chemical notification requirements of CEPA.

This material contains one or more substances not listed on the TSCA Inventory. Commercial use of this material is regulated by the FDA.

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16 Other Information  
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Reason for Reissue:

The following Sections and topics have been updated or revised:

Section 2 - Composition/Information on Ingredients;

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