

# SAFETY DATA SHEET

## 1. Identification

**Product number** 1000014162  
**Product identifier** 15.5 OZ NAVY DEO DIS-1 LB 12PK  
**Revision date** 03-31-2015  
**Company information** NAVY BRAND MFG CO  
3670 SCARLET OAK BLVD  
ST. LOUIS, MO 63122-9985 United States  
**Emergency telephone US** 1-866-836-8855  
**Emergency telephone outside US** 1-952-852-4646  
**Version #** 05  
**Supersedes date** 12-31-2014  
**Recommended use** Disinfectant  
**Recommended restrictions** None known.

## 2. Hazard(s) identification

**Physical hazards** Flammable aerosols Category 1  
**Health hazards** Not classified.  
**Environmental hazards** Not classified.  
**OSHA defined hazards** Not classified.

### Label elements



**Signal word** Danger  
**Hazard statement** Extremely flammable aerosol.  
**Precautionary statement**  
**Prevention** Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use.  
**Response** If exposed or concerned: Get medical advice/attention.  
**Storage** Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.  
**Disposal** Not available.  
**Hazard(s) not otherwise classified (HNOC)** None known.  
**Supplemental information** None.

## 3. Composition/information on ingredients

### Mixtures

Chemical name	Common name and synonyms	CAS number	%
Ethyl Alcohol		64-17-5	40 - 60
1,1-Difluoroethane		75-37-6	20 - 40
o-Phenylphenol		90-43-7	0.1 - 1
Sodium Nitrite		7632-00-0	0.1 - 1
Other components below reportable levels			20 - 40

#: This substance has workplace exposure limit(s).

\*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

## 4. First-aid measures

<b>Inhalation</b>	If symptoms develop move victim to fresh air. Oxygen or artificial respiration if needed. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Get medical attention if symptoms persist.
<b>Skin contact</b>	Wash off immediately with plenty of water for at least 15 minutes.
<b>Eye contact</b>	Call a physician or Poison Control Center immediately.
<b>Ingestion</b>	Rinse mouth. Get medical attention if symptoms occur.
<b>Most important symptoms/effects, acute and delayed</b>	Headache. Irritation of eyes and mucous membranes. Irritation of nose and throat. Coughing. Skin irritation.
<b>Indication of immediate medical attention and special treatment needed</b>	Provide general supportive measures and treat symptomatically.
<b>General information</b>	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

## 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Powder. Alcohol resistant foam. Carbon dioxide (CO <sub>2</sub> ).
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.
<b>Specific hazards arising from the chemical</b>	Contents under pressure. Pressurized container may explode when exposed to heat or flame. Fire may produce irritating, corrosive and/or toxic gases.
<b>Special protective equipment and precautions for firefighters</b>	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. Structural firefighters protective clothing will only provide limited protection.
<b>Fire-fighting equipment/instructions</b>	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. Move containers from fire area if you can do so without risk. Containers should be cooled with water to prevent vapor pressure build up. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk. In the event of fire and/or explosion do not breathe fumes.
<b>General fire hazards</b>	Extremely flammable aerosol.

## 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Pay attention to flashback. Wear appropriate protective equipment and clothing during clean-up. Avoid skin contact and inhalation of vapors during disposal of spills. Fully encapsulating, vapor protective clothing should be worn for spills and leaks with no fire. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
<b>Methods and materials for containment and cleaning up</b>	Refer to attached safety data sheets and/or instructions for use. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks). Keep out of low areas. Stop leak if you can do so without risk. Move the cylinder to a safe and open area if the leak is irreparable. If possible, turn leaking containers so that gas escapes rather than liquid. Isolate area until gas has dispersed. Prevent entry into waterways, sewer, basements or confined areas. Clean surface thoroughly to remove residual contamination. For waste disposal, see section 13 of the SDS. This material and its container must be disposed of as hazardous waste.
<b>Environmental precautions</b>	Avoid discharge into drains, water courses or onto the ground.

## 7. Handling and storage

### Precautions for safe handling

Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. All equipment used when handling the product must be grounded. Do not re-use empty containers. Avoid contact with skin. Avoid prolonged exposure. Use only in area provided with appropriate exhaust ventilation. Wear appropriate personal protective equipment. Wash thoroughly after handling. Observe good industrial hygiene practices.

### Conditions for safe storage, including any incompatibilities

Level 1 Aerosol.

Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C/122 °F. The pressure in sealed containers can increase under the influence of heat. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. This material can accumulate static charge which may cause spark and become an ignition source. Store in a well-ventilated place. Refrigeration recommended. Keep away from food, drink and animal feedingstuffs. Store away from incompatible materials (see Section 10 of the SDS). Level 1 Aerosol (NFPA 30B)

## 8. Exposure controls/personal protection

### Occupational exposure limits

#### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Ethyl Alcohol (CAS 64-17-5)	PEL	1900 mg/m3 1000 ppm

#### US. ACGIH Threshold Limit Values

Components	Type	Value
Ethyl Alcohol (CAS 64-17-5)	STEL	1000 ppm

#### US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Ethyl Alcohol (CAS 64-17-5)	TWA	1900 mg/m3 1000 ppm

#### US. Workplace Environmental Exposure Level (WEEL) Guides

Components	Type	Value
1,1-Difluoroethane (CAS 75-37-6)	TWA	2700 mg/m3 1000 ppm

### Biological limit values

No biological exposure limits noted for the ingredient(s).

### Appropriate engineering controls

Ensure adequate ventilation, especially in confined areas.

### Individual protection measures, such as personal protective equipment

#### Eye/face protection

Wear safety glasses with side shields (or goggles).

#### Hand protection

Wear appropriate chemical resistant gloves.

#### Skin protection

#### Other

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

#### Respiratory protection

If permissible levels are exceeded use NIOSH mechanical filter / organic vapor cartridge or an air-supplied respirator.

#### Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

### General hygiene considerations

Do not get in eyes. When using do not smoke. Avoid contact with skin. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

## 9. Physical and chemical properties

### Appearance

Physical state Gas.

<b>Form</b>	Aerosol.
<b>Color</b>	colorless
<b>Odor</b>	fruity alcoholic
<b>Odor threshold</b>	Not available.
<b>pH</b>	9.5 - 10.5 estimated
<b>Melting point/freezing point</b>	Not available.
<b>Initial boiling point and boiling range</b>	212 °F (100 °C) estimated
<b>Flash point</b>	-58.0 °F (-50.0 °C) Propellant estimated
<b>Evaporation rate</b>	Not available.
<b>Flammability (solid, gas)</b>	Not available.
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit - lower (%)</b>	4.2 % estimated
<b>Flammability limit - upper (%)</b>	16.9 % estimated
<b>Explosive limit - lower (%)</b>	Not available.
<b>Explosive limit - upper (%)</b>	Not available.
<b>Vapor pressure</b>	65 - 75 psig @ 70F estimated
<b>Vapor density</b>	Not available.
<b>Relative density</b>	Not available.
<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	Not available.
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	749.57 °F (398.65 °C) estimated
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	Not available.
<b>Other information</b>	
<b>Specific gravity</b>	1.133 estimated

## 10. Stability and reactivity

<b>Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport.
<b>Chemical stability</b>	Risk of ignition. Stable at normal conditions.
<b>Possibility of hazardous reactions</b>	Hazardous polymerization does not occur.
<b>Conditions to avoid</b>	Heat, flames and sparks. Avoid temperatures exceeding the flash point. Do not mix with other chemicals. Contact with incompatible materials.
<b>Incompatible materials</b>	Strong oxidizing agents. Amines. Isocyanates. Acids.
<b>Hazardous decomposition products</b>	May include oxides of nitrogen. May include oxides of phosphorus. No hazardous decomposition products are known.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Ingestion</b>	Expected to be a low ingestion hazard.
<b>Inhalation</b>	No adverse effects due to inhalation are expected.
<b>Skin contact</b>	No adverse effects due to skin contact are expected.
<b>Eye contact</b>	Direct contact with eyes may cause temporary irritation.

**Symptoms related to the physical, chemical and toxicological characteristics** Headache. Irritation of nose and throat. Irritation of eyes and mucous membranes. Coughing. Skin irritation.

### Information on toxicological effects

**Acute toxicity** Acute LC50: 84 mg/l/4h, Rat, Inhalation

Product	Species	Test Results
15.5 OZ NAVY DEO DIS-1 LB 12PK (CAS Mixture)		
<b>Acute</b>		
<i>Inhalation</i>		
LC50	Rat	84 mg/l/4h
<i>Oral</i>		
LD50	Rat	
Components	Species	Test Results
1,1-Difluoroethane (CAS 75-37-6)		
<b>Acute</b>		
<i>Inhalation</i>		
LC50	Rat	44 - 437500 %, 4 Hours
Ethyl Alcohol (CAS 64-17-5)		
<b>Acute</b>		
<i>Inhalation</i>		
LC50	Cat	85.41 mg/l, 4.5 Hours 43.68 mg/l, 6 Hours
	Mouse	> 60000 ppm 79.43 mg/l, 134 Minutes
	Rat	> 115.9 mg/l, 4 Hours 51.3 mg/l, 6 Hours
	Monkey	6000 mg/kg
	Mouse	10500 ml/kg
	Rat	1187 - 2769 mg/kg 7800 ml/kg
o-Phenylphenol (CAS 90-43-7)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	> 5000 mg/kg, 24 Hours
	Rat	> 2000 mg/kg, 24 Hours
<i>Inhalation</i>		
LC50	Rat	> 949 mg/m3, If <1L: Consumer Commodity Hours > 36 mg/m3, 4 Hours
<i>Oral</i>		
LD50	Rat	> 2500 mg/kg
Sodium Nitrite (CAS 7632-00-0)		
<b>Acute</b>		
<i>Oral</i>		
LD50	Rat	180 mg/kg

\* Estimates for product may be based on additional component data not shown.

<b>Skin corrosion/irritation</b>	Not expected to be hazardous by OSHA criteria.
<b>Serious eye damage/eye irritation</b>	Direct contact with eyes may cause temporary irritation.
<b>Respiratory or skin sensitization</b>	
<b>Respiratory sensitization</b>	Not available.
<b>Skin sensitization</b>	This product is not expected to cause skin sensitization.
<b>Germ cell mutagenicity</b>	Not expected to be hazardous by OSHA criteria. Not expected to be hazardous by WHMIS criteria.
<b>Carcinogenicity</b>	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

**IARC Monographs. Overall Evaluation of Carcinogenicity**

o-Phenylphenol (CAS 90-43-7)

3 Not classifiable as to carcinogenicity to humans.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Not listed.

<b>Reproductive toxicity</b>	This product is not expected to cause reproductive or developmental effects.
<b>Specific target organ toxicity - single exposure</b>	Not classified.
<b>Specific target organ toxicity - repeated exposure</b>	Not classified.
<b>Aspiration hazard</b>	Not likely, due to the form of the product.
<b>Chronic effects</b>	Possible risks of irreversible effects.
<b>Further information</b>	Danger of very serious irreversible effects. This product has no known adverse effect on human health.

**12. Ecological information**

<b>Ecotoxicity</b>	LC50: 1730 mg/L, Fish, 96.00 Hours EC50: 931 mg/L, Daphnia, 48.00 Hours
--------------------	--

Product		Species	Test Results
15.5 OZ NAVY DEO DIS-1 LB 12PK (CAS Mixture)			
<b>Aquatic</b>			
Algae	IC50	Algae	556 mg/L, 72 Hours
Crustacea	EC50	Daphnia	931 mg/L, 48 Hours
Fish	LC50	Fish	1730 mg/L, 96 Hours
<b>Components</b>			
Ethyl Alcohol (CAS 64-17-5)			
<b>Aquatic</b>			
Crustacea	EC50	Water flea (Daphnia magna)	7700 - 11200 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas)	> 100.1 mg/l, 96 hours
o-Phenylphenol (CAS 90-43-7)			
<b>Aquatic</b>			
Algae	IC50	Algae	0.85 mg/L, 72 Hours
Crustacea	EC50	Daphnia	1.75 mg/L, 48 Hours
		Water flea (Daphnia magna)	1 - 2.4 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas)	3.4 mg/l, 96 hours
Sodium Nitrite (CAS 7632-00-0)			
<b>Aquatic</b>			
Crustacea	EC50	Greasyback shrimp (Metapenaeus ensis)	16.14 - 26.61 mg/l, 48 hours
Fish	LC50	Rainbow trout, donaldson trout (Oncorhynchus mykiss)	0.15 - 0.25 mg/l, 96 hours

\* Estimates for product may be based on additional component data not shown.

**Persistence and degradability** No data is available on the degradability of this product.**Bioaccumulative potential** No data available.**Partition coefficient n-octanol / water (log Kow)**

1,1-Difluoroethane	0.75
Ethyl Alcohol	-0.31
o-Phenylphenol	3.09

**Mobility in soil** No data available.**Other adverse effects** No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

### 13. Disposal considerations

<b>Disposal instructions</b>	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Contents under pressure. Do not puncture, incinerate or crush. Do not allow this material to drain into sewers/water supplies. Dispose of contents/container in accordance with local/regional/national/international regulations. Dispose of contents/container in accordance with local/regional/national/international regulation.
<b>Local disposal regulations</b>	Dispose in accordance with all applicable regulations.
<b>Hazardous waste code</b>	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
<b>Waste from residues / unused products</b>	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
<b>Contaminated packaging</b>	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied. Do not re-use empty containers.

### 14. Transport information

<b>DOT</b>	
<b>UN number</b>	UN1950
<b>UN proper shipping name</b>	Aerosols
<b>Transport hazard class(es)</b>	
<b>Class</b>	2.1
<b>Subsidiary risk</b>	-
<b>Label(s)</b>	2.1
<b>Packing group</b>	Not applicable.
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.
<b>Special provisions</b>	153, N82
<b>Packaging exceptions</b>	LTD QTY
<b>Packaging non bulk</b>	None
<b>Packaging bulk</b>	None
This product meets the exception requirements of section 173.306 as a limited quantity and may be shipped as a limited quantity. Until 12/31/2020, the "Consumer Commodity - ORM-D" marking may still be used in place of the new limited quantity diamond mark for packages of UN 1950 Aerosols. Limited quantities require the limited quantity diamond mark on cartons after 12/31/20 and may be used now in place of the "Consumer Commodity ORM-D" marking and both may be displayed concurrently.	

#### IATA

<b>UN number</b>	UN1950
<b>UN proper shipping name</b>	Aerosols, flammable
<b>Transport hazard class(es)</b>	
<b>Class</b>	2.1
<b>Subsidiary risk</b>	-
<b>Label(s)</b>	2.1
<b>Packing group</b>	Not applicable.
<b>Environmental hazards</b>	No.
<b>ERG Code</b>	10L
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.
<b>Other information</b>	
<b>Passenger and cargo aircraft</b>	Allowed.
<b>Cargo aircraft only</b>	Allowed.
<b>Packaging Exceptions</b>	LTD QTY

#### IMDG

<b>UN number</b>	UN1950
<b>UN proper shipping name</b>	AEROSOLS
<b>Transport hazard class(es)</b>	
<b>Class</b>	2.1
<b>Subsidiary risk</b>	-
<b>Label(s)</b>	2.1
<b>Packing group</b>	Not applicable.
<b>Environmental hazards</b>	
<b>Marine pollutant</b>	No.
<b>EmS</b>	Not available.

**Special precautions for user** Read safety instructions, SDS and emergency procedures before handling.  
**Packaging Exceptions** LTD QTY  
**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not applicable.  
**DOT**



**IATA; IMDG**



**15. Regulatory information**

**US federal regulations** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.  
 All components are on the U.S. EPA TSCA Inventory List.  
 Pesticides are exempt from TSCA.

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

Not regulated.

**CERCLA Hazardous Substance List (40 CFR 302.4)**

Sodium Nitrite (CAS 7632-00-0) Listed.

**SARA 304 Emergency release notification**

Not regulated.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Not listed.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**Hazard categories** Immediate Hazard - No  
 Delayed Hazard - No  
 Fire Hazard - Yes  
 Pressure Hazard - Yes  
 Reactivity Hazard - No

**SARA 302 Extremely hazardous substance**

Chemical name	CAS number	Reportable quantity	Threshold planning quantity	Threshold planning quantity, lower value	Threshold planning quantity, upper value
Anhydrous Ammonia	7664-41-7	100	500 lbs		

**SARA 311/312 Hazardous chemical** No

**SARA 313 (TRI reporting)**

Chemical name	CAS number	% by wt.
o-Phenylphenol	90-43-7	0.1 - 1
Sodium Nitrite	7632-00-0	0.1 - 1
t-Butyl Alcohol	75-65-0	0.1 - 1



## Other federal regulations

### Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

### Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

1,1-Difluoroethane (CAS 75-37-6)

**Safe Drinking Water Act (SDWA)** Not regulated.

## US state regulations

WARNING: This product contains a chemical known to the State of California to cause cancer.

### US. Massachusetts RTK - Substance List

1,1-Difluoroethane (CAS 75-37-6)

Ethyl Alcohol (CAS 64-17-5)

o-Phenylphenol (CAS 90-43-7)

Sodium Nitrite (CAS 7632-00-0)

### US. New Jersey Worker and Community Right-to-Know Act

1,1-Difluoroethane (CAS 75-37-6)

Ethyl Alcohol (CAS 64-17-5)

o-Phenylphenol (CAS 90-43-7)

Sodium Nitrite (CAS 7632-00-0)

### US. Pennsylvania Worker and Community Right-to-Know Law

Ethyl Alcohol (CAS 64-17-5)

o-Phenylphenol (CAS 90-43-7)

Sodium Nitrite (CAS 7632-00-0)

### US. Rhode Island RTK

1,1-Difluoroethane (CAS 75-37-6)

o-Phenylphenol (CAS 90-43-7)

Sodium Nitrite (CAS 7632-00-0)

### US. California Proposition 65

WARNING: This product contains a chemical known to the State of California to cause cancer.

### US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

o-Phenylphenol (CAS 90-43-7)

Listed: August 4, 2000

## International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

## 16. Other information, including date of preparation or last revision

Issue date	09-12-2014
Revision date	03-31-2015
Version #	05

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.