



SAFETY DATA SHEET

1. Identification

Product number CL081
Product identifier **DISINFECTANT SPRAY FOR HEALTH CARE USE**
Revision date 03-31-2015
Company information Claire Manufacturing Co.
1005 S. Westgate Drive
Addison, IL 60101 United States
Company phone General Assistance 1-630-543-7600
Emergency telephone US 1-866-836-8855
Emergency telephone outside US 1-952-852-4646
Version # 07
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.

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4. First-aid measures

Inhalation	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.
Skin contact	Wash off immediately with plenty of water for at least 15 minutes.
Eye contact	Call a physician or Poison Control Center immediately.
Ingestion	Rinse mouth. Get medical attention if symptoms occur.
Most important symptoms/effects, acute and delayed	Headache. Irritation of eyes and mucous membranes. Irritation of nose and throat. Coughing. Skin irritation.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media	Powder. Alcohol resistant foam. Carbon dioxide (CO ₂).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	Contents under pressure. Pressurized container may explode when exposed to heat or flame. Fire may produce irritating, corrosive and/or toxic gases.
Special protective equipment and precautions for firefighters	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.
Fire-fighting equipment/instructions	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.
Specific methods	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.
General fire hazards	Extremely flammable aerosol.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	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.
Methods and materials for containment and cleaning up	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.
Environmental precautions	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.

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

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Risk of ignition. Stable at normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Heat, flames and sparks. Avoid temperatures exceeding the flash point. Do not mix with other chemicals. Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents. Amines. Isocyanates. Acids.
Hazardous decomposition products	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	
Ingestion	Expected to be a low ingestion hazard.
Inhalation	No adverse effects due to inhalation are expected. Skin
contact	No adverse effects due to skin contact are expected.
Eye contact	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
DISINFECTANT SPRAY FOR HEALTH CARE USE (CAS Mixture)		
Acute		
Inhalation		
LC50	Rat	84 mg/l/4h
Oral		
LD50	Rat	
Components	Species	Test Results
1,1-Difluoroethane (CAS 75-37-6)		
Acute		
Inhalation		
LC50	Rat	44 - 437500 %, 4 Hours
Ethyl Alcohol (CAS 64-17-5)		
Acute		
Inhalation		
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
Oral		
LD50	Monkey	6000 mg/kg
	Mouse	10500 ml/kg
	Rat	1187 - 2769 mg/kg
		7800 ml/kg
o-Phenylphenol (CAS 90-43-7)		
Acute		
Dermal		
LD50	Rabbit	> 5000 mg/kg, 24 Hours
	Rat	> 2000 mg/kg, 24 Hours
Inhalation		
LC50	Rat	> 949 mg/m3, If <1L: Consumer Commodity Hours
		> 36 mg/m3, 4 Hours
Oral		
LD50	Rat	> 2500 mg/kg
Sodium Nitrite (CAS 7632-00-0)		
Acute		
Oral		
LD50	Rat	180 mg/kg

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

Skin corrosion/irritation Not expected to be hazardous by OSHA criteria.

Serious eye damage/eye irritation Direct contact with eyes may cause temporary irritation.

Respiratory or skin sensitization

Respiratory sensitization Not available.

Skin sensitization This product is not expected to cause skin sensitization.

Germ cell mutagenicity Not expected to be hazardous by OSHA criteria. Not expected to be hazardous by WHMIS criteria.

Carcinogenicity 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.

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

12. Ecological information

Ecotoxicity	LC50: 1730 mg/L, Fish, 96.00 Hours EC50: 931 mg/L, Daphnia, 48.00 Hours
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Product		Species	Test Results
DISINFECTANT SPRAY FOR HEALTH CARE USE (CAS Mixture)			
Aquatic			
Algae	IC50	Algae	556 mg/L, 72 Hours
Crustacea	EC50	Daphnia	931 mg/L, 48 Hours
Fish	LC50	Fish	1730 mg/L, 96 Hours
Components		Species	Test Results
Ethyl Alcohol (CAS 64-17-5)			
Aquatic			
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)			
Aquatic			
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)			
Aquatic			
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

Disposal instructions	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.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	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).
Contaminated packaging	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

DOT	
UN number	UN1950
UN proper shipping name	Aerosols
Transport hazard class(es)	
Class	2.1
Subsidiary risk	-
Label(s)	2.1
Packing group	Not applicable.
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Special provisions	153, N82
Packaging exceptions	LTD QTY
Packaging non bulk	None
Packaging bulk	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	
UN number	UN1950
UN proper shipping name	Aerosols, flammable
Transport hazard class(es)	
Class	2.1
Subsidiary risk	-
Label(s) Packing	2.1
group Environmental	Not applicable.
hazards ERG Code	No.
	10L
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Other information	
Passenger and cargo aircraft	Allowed.
Cargo aircraft only	Allowed.
Packaging Exceptions	LTD QTY
IMDG	
UN number	UN1950
UN proper shipping name	AEROSOLS
Transport hazard class(es)	
Class	2.1
Subsidiary risk	-
Label(s) Packing	2.1
group Environmental	Not applicable.
hazards	
Marine pollutant	No.
EmS	Not available.

Special precautions for user
Packaging Exceptions
Transport in bulk according to
Annex II of MARPOL 73/78 and
the IBC Code
DOT

Read safety instructions, SDS and emergency procedures before handling.
LTD QTY
Not applicable.



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 09-10-2014
Revision date 03-31-2015
Version # 07

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.