



SAFETY DATA SHEET

1. Identification

Product number 1000000911
Product identifier **FLORAL DISINFECTANT SPRAY FOR HOSPITAL USE**
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 # 01
Recommended use Not available.
Recommended restrictions None known.

2. Hazard(s) identification

Physical hazards Flammable aerosols Category 1
Health hazards Acute toxicity, oral Category 4
 Specific target organ toxicity, single exposure Category 3 respiratory tract irritation
Environmental hazards Hazardous to the aquatic environment, acute hazard Category 1
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 Wash hands after handling.
Storage Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.
Disposal Dispose of contents/container in accordance with local/regional/national/international regulations.
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
Butane		106-97-8	10 - 20
Propane		74-98-6	2.5 - 10
Sodium Nitrite		7632-00-0	0.1 - 1
Other components below reportable levels			20 - 40

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

vPvB: very persistent and very bioaccumulative substance.

PBT: persistent, bioaccumulative and toxic substance.

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

4. First-aid measures

Inhalation	Move to fresh air. Call a physician if symptoms develop or persist.
Skin contact	Take off immediately all contaminated clothing. Rinse skin with water/shower. Get medical attention if irritation develops and persists.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Get medical attention if irritation develops and persists.
Ingestion	Rinse mouth. Get medical attention if symptoms occur.
Most important symptoms/effects, acute and delayed	Direct contact with eyes may cause temporary irritation.
Indication of immediate medical attention and special treatment needed	Treat symptomatically.
General information	Take off all contaminated clothing immediately. Wash contaminated clothing before reuse. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Alcohol resistant foam. Dry chemical powder. 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. During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire-fighting equipment/instructions	Move containers from fire area if you can do so without risk. Containers should be cooled with water to prevent vapor pressure build up.
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. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. 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.
Methods and materials for containment and cleaning up	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Stop leak if you can do so without risk. Move the cylinder to a safe and open area if the leak is irreparable. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills in original containers for re-use.
Environmental precautions	Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling	Do not handle or store near an open flame, heat or other sources of ignition. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Do not spray on a naked flame or any other incandescent material. Use only in well-ventilated areas. Provide adequate ventilation. Avoid breathing dust/fume/gas/mist/vapors/spray. Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not re-use empty containers. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.
Conditions for safe storage, including any incompatibilities	Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C/122 °F. Do not puncture, incinerate or crush. Keep away from heat, sparks and open flame. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS). Level 2 Aerosol.

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
Propane (CAS 74-98-6)	PEL	1800 mg/m3 1000 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value
Butane (CAS 106-97-8)	STEL	1000 ppm
Ethyl Alcohol (CAS 64-17-5)	STEL	1000 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Butane (CAS 106-97-8)	TWA	1900 mg/m3 800 ppm
Ethyl Alcohol (CAS 64-17-5)	TWA	1900 mg/m3 1000 ppm
Propane (CAS 74-98-6)	TWA	1800 mg/m3 1000 ppm

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

Appropriate engineering controls Explosion-proof general and local exhaust ventilation.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Hand protection Wear protective gloves.

Skin protection

Other Wear suitable protective clothing.

Respiratory protection If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations When using do not smoke. 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 Compressed liquefied gas.

Physical state Liquid.

Form Aerosol. Compressed gas.

Color clear colorless

Odor Alcoholic.

Odor threshold Not available.

pH 9.5 - 10.5 estimated

Melting point/freezing point Not available.

Initial boiling point and boiling range 140.86 °F (60.48 °C) estimated

Flash point -156.0 °F (-104.4 °C) Propellant estimated

Evaporation rate Not available.

Flammability (solid, gas) Not available.

Upper/lower flammability or explosive limits

Flammability limit - lower (%) 2.6 % estimated

Flammability limit - upper (%)	12.8 % estimated
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	70 - 80 psig @70F estimated
Vapor density	Not available.
Relative density	0.752 g/cm3 estimated
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	856.4 °F (458 °C) estimated
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Density	0.79 g/cm3 estimated
Flammability class	Flammable IB estimated
Heat of combustion	23.37 kJ/g estimated
Heat of combustion (NFPA 30B)	23.19 kJ/g estimated
Percent volatile	99.5 % estimated
Specific gravity	0.752 estimated
VOC (Weight %)	74.97 % estimated

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Avoid temperatures exceeding the flash point.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	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 Direct contact with eyes may cause temporary irritation.

Information on toxicological effects

Acute toxicity Expected to be a low hazard for usual industrial or commercial handling by trained personnel.

Product	Species	Test Results
FLORAL DISINFECTANT SPRAY FOR HOSPITAL USE (CAS Mixture)		
Acute		
<i>Inhalation</i>		
LC50	Rat	82 mg/l/4h
<i>Oral</i>		
LD50	Rat	

Components	Species	Test Results
Butane (CAS 106-97-8)		
Acute		
<i>Inhalation</i>		
LC50	Mouse	1237 mg/l, 120 Minutes 52 %, 120 Minutes
	Rat	1355 mg/l
Ethyl Alcohol (CAS 64-17-5)		
Acute		
<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
<i>Oral</i>		
LD50	Monkey	6000 mg/kg
	Mouse	10500 ml/kg
	Rat	1187 - 2769 mg/kg 7800 ml/kg
Propane (CAS 74-98-6)		
Acute		
<i>Inhalation</i>		
LC50	Mouse	1237 mg/l, 120 Minutes 52 %, 120 Minutes
	Rat	1355 mg/l 658 mg/l/4h
Sodium Nitrite (CAS 7632-00-0)		
Acute		
<i>Inhalation</i>		
LC50	Rat	5.5 mg/kg, 4 hours supplier
<i>Oral</i>		
LD50	Rat	88 mg/kg supplier
Skin corrosion/irritation	Prolonged skin contact may cause temporary irritation.	
Serious eye damage/eye irritation	Direct contact with eyes may cause temporary irritation.	
Respiratory or skin sensitization		
Respiratory sensitization	Not a respiratory sensitizer.	
Skin sensitization	This product is not expected to cause skin sensitization.	
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.	
Carcinogenicity	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.	
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 an aspiration hazard.	

12. Ecological information

Ecotoxicity Toxic to aquatic life with long lasting effects.

Product		Species	Test Results
FLORAL DISINFECTANT SPRAY FOR HOSPITAL USE (CAS Mixture)			
Aquatic			
Algae	IC50	Algae	569 mg/L, 72 Hours
Crustacea	EC50	Daphnia	952 mg/L, 48 Hours
Fish	LC50	Fish	1762 mg/L, 96 Hours
Components			
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
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

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)

Butane	2.89
Ethyl Alcohol	-0.31
Propane	2.36

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.

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 Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT

UN number	UN1950
UN proper shipping name	Aerosols, flammable
Transport hazard class(es)	
Class	2.1
Subsidiary risk	-
Label(s)	None
Packing group	Not applicable.
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling. Read safety instructions, SDS and emergency procedures before handling.
Special provisions	N82
Packaging exceptions	306
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)	2.1
Packing group	Not applicable.
Environmental hazards	Yes
ERG Code	10L
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling. 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)	None
Packing group	Not applicable.
Environmental hazards	
Marine pollutant	Yes
EmS	Not available.
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling. 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



Marine pollutant



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.

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 - Yes
Delayed Hazard - No
Fire Hazard - Yes
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Table with 6 columns: Chemical name, CAS number, Reportable quantity, Threshold planning quantity, Threshold planning quantity, lower value, Threshold planning quantity, upper value. Row 1: Anhydrous Ammonia, 7664-41-7, 100, 500 lbs.

SARA 311/312 Hazardous chemical No

SARA 313 (TRI reporting)

Table with 3 columns: Chemical name, CAS number, % by wt. Row 1: Sodium Nitrite, 7632-00-0, 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)

Butane (CAS 106-97-8)
Propane (CAS 74-98-6)

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

Butane (CAS 106-97-8)
Ethyl Alcohol (CAS 64-17-5)
Propane (CAS 74-98-6)
Sodium Nitrite (CAS 7632-00-0)

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

Butane (CAS 106-97-8)
Ethyl Alcohol (CAS 64-17-5)
Propane (CAS 74-98-6)
Sodium Nitrite (CAS 7632-00-0)

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

Butane (CAS 106-97-8)
 Ethyl Alcohol (CAS 64-17-5)
 Propane (CAS 74-98-6)
 Sodium Nitrite (CAS 7632-00-0)

US. Rhode Island RTK

Butane (CAS 106-97-8)
 Propane (CAS 74-98-6)
 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.

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 05-25-2015

Version # 01

Disclaimer

The information in the sheet was written based on the best knowledge and experience currently available. 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.