Hurri-Freeze

SECTION 1. IDENTIFICATION

Product name	:	Hurri-Freeze
Product Number	:	0283-1806-44, 0283-1807-44, 0283-1808-44, 0283-1809-44
Product Use Description	:	Topical Anesthetic
Manufacturer or supplier's details	:	Nuance Medical, LLC 5931 Sea Lion Place, Suite 113 Carlsbad, CA 92010
For more information call	:	760-585-9548 (Monday-Friday, 9:00am-5:00pm PST)
In case of emergency call	:	**Medical: 1-800-498-5701 or +1-303-389-1414**
	:	**Transportation (CHEMTREC): 1-800-424-9300 or +1-703-527-3887**
	:	
	:	(24 hours/day, 7 days/week)

SECTION 2. HAZARDS IDENTIFICATION

Emergency Overview

Form	:	Liquefied gas
Color	:	colourless
Odor	:	slight ether-like

Classification of the substance or mixture

Classification of the substance or mixture	:	Gases under pressure, Liquefied gas Simple Asphyxiant

GHS Label elements, including precautionary statements

Symbol(s) :

Signal word : Warning

Hazard statements : (H280) Contains gas under pressure; may explode if heated.
May displace oxygen and cause rapid suffocation.

Precautionary statements : **Prevention:**
Use personal protective equipment as required.

Storage:
(P410) Protect from sunlight.
(P403) Store in a well-ventilated place.

Hazards not otherwise classified : Excessive exposure may cause central nervous system effects including drowsiness and dizziness.
Cardiac NOEL 119, 826ppm Rapid evaporation may cause frostbite.

Carcinogenicity

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP, IARC, or OSHA.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature : Mixture

trans-1-Chloro-3,3,3-trifluoropropene	102687-65-0	60 – 70 %
trans-1,3,3,3-Tetrafluoroprop-1-ene	29118-24-9	30 – 40 %

SECTION 4. FIRST AID MEASURES

Inhalation	:	Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration. Use oxygen as required, provided a qualified operator is present. Call a physician.
Skin contact	:	Rapid evaporation of the liquid may cause frostbite. If there is evidence of frostbite, bathe (do not rub) with lukewarm (not hot) water. If water is not available, cover with a clean, soft cloth or similar covering. Call a physician if irritation develops or persists.
Eye contact	:	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. In case of frostbite water should be lukewarm, not hot. If symptoms persist, call a physician.
Ingestion	:	Unlikely route of exposure. As this product is a gas, refer to the inhalation section. Do not induce vomiting without medical advice. Call a physician immediately.

Notes to physician

Indication of immediate medical attention and special treatment needed, if necessary	:	Treat frost-bitten areas as needed.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	:	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Water mist Dry powder Foam Carbon dioxide (CO2)
Specific hazards during firefighting	:	Contents under pressure. Heating will cause pressure rise with risk of bursting Cool closed containers exposed to fire with water spray. Product is not combustible under normal conditions. However, this material can ignite when mixed with air under pressure and exposed to strong ignition sources. Do not allow run-off from fire fighting to enter drains or water courses.

Vapours are heavier than air and can cause suffocation by reducing oxygen available for breathing.
Some risk may be expected of corrosive and toxic decomposition products.
In case of fire hazardous decomposition products may be produced such as:
Carbon monoxide
Carbon dioxide (CO_2)
Carbonyl halides
Hydrogen fluoride
Gaseous hydrogen chloride (HCl).

Special protective equipment for firefighters : In the event of fire and/or explosion do not breathe fumes.
Wear self-contained breathing apparatus and protective suit.
No unprotected exposed skin areas.
Exposure to decomposition products may be a hazard to health.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Immediately evacuate personnel to safe areas.
Keep people away from and upwind of spill/leak.
Wear personal protective equipment. Unprotected persons must be kept away.
Remove all sources of ignition.
Avoid skin contact with leaking liquid (danger of frostbite).
Ventilate the area.
After release, disperses into the air.
Vapours are heavier than air and can cause suffocation by reducing oxygen available for breathing.
Avoid accumulation of vapours in low areas.
Unprotected personnel should not return until air has been tested and determined safe.

Environmental precautions : Prevent further leakage or spillage if safe to do so.
The product evapourates readily.
Prevent spreading over a wide area (e.g. by containment or oil barriers).

Methods and materials for containment and cleaning up : Do not direct water spray at the point of leakage.
Allow to evaporate.

SECTION 7. HANDLING AND STORAGE

Handling

Precautions for safe handling	:	Handle with care. Avoid inhalation of vapour or mist. Do not get in eyes, on skin, or on clothing. Wear personal protective equipment. Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50 °C. Follow all standard safety precautions for handling and use of compressed gas cylinders. Use authorized cylinders only. Protect cylinders from physical damage. Do not puncture or drop cylinders, expose them to open flame or excessive heat. Do not pierce or burn, even after use. Do not spray on a naked flame or any incandescent material. Do not remove screw cap until immediately ready for use. Always replace cap after use.
Advice on protection against fire and explosion	:	Do not spray on a naked flame or any incandescent material. Keep away from direct sunlight. Fire or intense heat may cause violent rupture of packages. Vapours may form explosive mixtures with air. The product is not easily combustible.

Storage

Conditions for safe storage, including any incompatibilities	:	Keep containers tightly closed in a cool, well-ventilated place. Keep away from direct sunlight. Protect cylinders from physical damage. Store away from incompatible substances.
Further information on storage conditions	:	Keep only in the original container at temperature not exceeding 50°C
Advice on common storage	:	Do not store together with: Oxidizing agents

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Protective measures	:	Do not breathe vapour. Avoid contact with skin, eyes and clothing. Ensure that eyewash stations and safety showers are close to the workstation location.
Engineering measures	:	Local exhaust
Eye protection	:	Goggles
Hand protection	:	Protective gloves
Skin and body protection	:	Impervious clothing Wear cold insulating gloves/ face shield/ eye protection.
Respiratory protection	:	In case of insufficient ventilation wear suitable respiratory equipment. Wear a positive-pressure supplied-air respirator.
Hygiene measures	:	Avoid breathing vapours, mist or gas. Keep working clothes separately. Do not smoke.

Exposure Guidelines

Components	CAS-No.	Value	Control parameters	Update	Basis
trans-1-Chloro-3,3,3-Trifluoropropene	102687-65-0	TWA : Time weighted average	(800 ppm)	2014	WEEL:US. OARS. WEELs Workplace Environmental Exposure Level Guide
trans-1-Chloro-3,3,3-Trifluoropropene	102687-65-0	TWA : Time weighted average	(800 ppm)	2013	Honeywell:Limit established by Honeywell International Inc.
trans-1,3,3,3-Tetrafluoroprop-1-ene	29118-24-9	TWA : Time weighted average	(800 ppm)	2012	WEEL:US. OARS. WEELs Workplace Environmental Exposure Level Guide
trans-1,3,3,3-Tetrafluoroprop-1-ene	29118-24-9	TWA : Time weighted average	(800 ppm)	2011	Honeywell:Limit established by Honeywell International Inc.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	: Liquefied gas
Color	: colourless
Odor	: slight ether-like
Boiling point/boiling range	: -5.5 - 13.3 °C
Flash point	: Note: does not flash
Lower explosion limit	: Note: Not applicable
Upper explosion limit	: Note: Not applicable
Vapor pressure	: 1,310 - 2,620 hPa at 21.1 °C(70.0 °F) 3,792 - 6,688 hPa at 54.4 °C(129.9 °F)
Vapor density	: Note: not determined
Density	: Note: not determined
Water solubility	: Note: not determined
Ignition Temperature	: Note: no data available
Decomposition temperature	: Note: Hazardous decomposition products formed under fire conditions. To avoid thermal decomposition, do not overheat.

SECTION 10. STABILITY AND REACTIVITY

Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	Hazardous polymerization does not occur.
Conditions to avoid	:	Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50 °C. Can form a combustible mixture with air at pressures above atmospheric pressure. Do not mix with oxygen or air above atmospheric pressure.
Incompatible materials	:	Reactions with alkali metals.
Hazardous decomposition products	:	In case of fire hazardous decomposition products may be produced such as: Carbon monoxide Carbon dioxide (CO2) Carbonyl halides Hydrogen fluoride Gaseous hydrogen chloride (HCl).

SECTION 11. TOXICOLOGICAL INFORMATION

Acute inhalation toxicity

trans-1-Chloro-3,3,3-trifluoropropene	:	LC50: 120000 ppm Exposure time: 4 h Species: Rat
trans-1,3,3,3-Tetrafluoroprop-1-ene	:	100000 ppm Species: Mouse Note: Acute (4-Hour) Inhalation Toxicity Screening Study (mouse): No lethality at >100,000 ppm. LC50: > 207000 ppm Exposure time: 4 h Species: Rat Skin irritation

trans-1-Chloro-3,3,3-trifluoropropene	:	Species: Rabbit Result: No skin irritation Classification: Not classified as a skin irritant in animal testing. Method: OECD Test Guideline 404 Exposure time: 4 h
trans-1,3,3,3-Tetrafluoroprop-1-ene	:	Species: Rabbit Result: No skin irritation Method: OECD Test Guideline 404
Sensitisation		
trans-1-Chloro-3,3,3-trifluoropropene	:	Cardiac sensitization Species: dogs Note: Cardiac sensitisation threshold (dog): 25000 ppm. Result: Does not cause skin sensitisation. Classification: Patch test on human volunteers did not demonstrate sensitisation properties.
trans-1,3,3,3-Tetrafluoroprop-1-ene	:	Cardiac sensitization Species: dogs Note: Did not cause sensitisation on laboratory animals.
Repeated dose toxicity		
trans-1-Chloro-3,3,3-trifluoropropene	:	Species: Rat Application Route: Inhalation Exposure time: (4 Weeks) NOEL: 4500 ppm Subacute toxicity
trans-1,3,3,3-Tetrafluoroprop-1-ene	:	Species: Rat Application Route: Inhalation Exposure time: (13 Weeks) NOEL: 5000 ppm Species: Dog Application Route: Inhalation Exposure time: Nine-months Note: NOEL 14,700 ppm Species: Mice Application Route: Inhalation Exposure time: 13 weeks Note: NOEL 50,700 ppm
trans-1-Chloro-3,3,3-trifluoropropene	:	Test Method: Mutagenicity (Salmonella typhimurium - reverse mutation assay) Result: negative

trans-1,3,3,3-Tetrafluoroprop-1-ene	:	Test Method: Chromosome aberration test in vitro Cell type: Human lymphocytes Result: negative
	:	Test Method: Ames test Result: negative
Genotoxicity in vivo trans-1-Chloro-3,3,3-trifluoropropene	:	Species: Rat Cell type: Bone marrow Method: Mutagenicity (micronucleus test) Result: negative
	:	Test Method: Unscheduled DNA synthesis Species: Rat Result: negative
	:	Species: Mouse Cell type: Bone marrow Method: Mutagenicity (micronucleus test) Result: negative
trans-1,3,3,3-Tetrafluoroprop-1-ene	:	Test Method: Mutagenicity (in vivo mammalian bone-marrow cytogenetic test, chromosomal analysis) Species: Mouse Cell type: Micronucleus Application Route: Inhalation Result: negative
Reproductive toxicity trans-1-Chloro-3,3,3-trifluoropropene	:	Species: Rabbit Note: No-observed-effect level - 15,000 ppm
		Species: Rat Note: No-observed-effect level - 10,000 ppm
Teratogenicity trans-1-Chloro-3,3,3-trifluoropropene	:	Species: Rabbit Note: No-observed-effect level - 15,000 ppm
		Species: Rat Note: No-observed-effect level - 10,000 ppm

trans-1,3,3,3-Tetrafluoroprop-1-ene	:	Species: Rabbit Method: Prenatal Developmental Inhalation Toxicity Study Note: Did not show teratogenic effects in animal experiments. Species: Rat Method: Prenatal Developmental Inhalation Toxicity Study Note: Did not show teratogenic effects in animal experiments.

SECTION 12. ECOLOGICAL INFORMATION

Toxicity to fish

trans-1-Chloro-3,3,3-trifluoropropene	:	LC50: 38 mg/l Exposure time: 96 h Species: Oncorhynchus mykiss (rainbow trout) Method: OECD Test Guideline 203
trans-1,3,3,3-Tetrafluoroprop-1-ene	:	NOEC: > 117 mg/l Exposure time: 96 h Species: Cyprinus carpio (Carp)

Toxicity to daphnia and other aquatic invertebrates

trans-1-Chloro-3,3,3-trifluoropropene	:	Immobilization EC50: 82 mg/l Exposure time: 48 h Species: Daphnia magna (Water flea) Method: OECD Test Guideline 202
trans-1,3,3,3-Tetrafluoroprop-1-ene	:	EC50: > 160 mg/l Exposure time: 48 h Species: Daphnia magna (Water flea)

Toxicity to algae

trans-1-Chloro-3,3,3-trifluoropropene	:	Growth inhibition EC50: 106.7 mg/l Exposure time: 72 h Species: Pseudokirchneriella subcapitata (green algae) Method: OECD Test Guideline 201 Growth rate NOEC: 115 mg/l Exposure time: 72 h

Species: Pseudokirchneriella subcapitata (green algae)
Method: OECD Test Guideline 201

trans-1,3,3,3-Tetrafluoroprop-1-ene : Growth inhibition
NOEC: > 170 mg/l
Exposure time: 72 h
Species: Algae

Biodegradability

trans-1-Chloro-3,3,3-trifluoropropene : Result: Not readily biodegradable.
Value: 0 %
Method: OECD 301 D

trans-1,3,3,3-Tetrafluoroprop-1-ene : aerobic
Result: Not readily biodegradable.

Further information on ecology

Results of PBT assessment:
This substance is not considered to be very persistent and very bioaccumulating (vPvB).,
This substance is not considered to be persistent, bioaccumulating and toxic (PBT).

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods : Observe all Federal, State, and Local Environmental regulations.

SECTION 14. TRANSPORT INFORMATION

DOT

UN/ID No.	: UN 3163
Proper shipping name	: LIQUEFIED GAS, N.O.S. (trans-1,3,3,3-Tetrafluoroprop-1-ene, Trans-1-Chloro-3,3,3-trifluoropropene)
Class	2.2
Packing group	
Hazard Labels	2.2

IATA

UN/ID No.	: UN 3163
Description of the goods	: LIQUEFIED GAS, N.O.S. (trans-1,3,3,3-Tetrafluoroprop-1-ene, Trans-1-Chloro-3,3,3-trifluoropropene)
Class	: 2.2
Hazard Labels	: 2.2
Packing instruction (cargo aircraft)	: 200

	Packing instruction (passenger aircraft)	:	200
IMDG	UN/ID No.	:	UN 3163
	Description of the goods	:	LIQUEFIED GAS, N.O.S. (TRANS-1,3,3,3-TETRAFLUOROPROP-1-ENE, TRANS-1-CHLORO-3,3,3-TRIFLUOROPROPENE)
	Class	:	2.2
	Hazard Labels	:	2.2
	EmS Number	:	F-C, S-V
	Marine pollutant	:	no

SECTION 15. REGULATORY INFORMATION

Inventories

US. Toxic Substances Control Act	:	On TSCA Inventory
Australia. Industrial Chemical (Notification and Assessment) Act	:	Not in compliance with the inventory
Canada. Canadian Environmental Protection Act (CEPA). Domestic Substances List (DSL)	:	All components of this product are on the Canadian DSL
Japan. Kashin-Hou Law List	:	On the inventory, or in compliance with the inventory
Korea. Existing Chemicals Inventory (KECI)	:	On the inventory, or in compliance with the inventory
Philippines. The Toxic Substances and Hazardous and Nuclear Waste Control Act	:	Not in compliance with the inventory
China. Inventory of Existing Chemical Substances	:	On the inventory, or in compliance with the inventory
New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New	:	Not in compliance with the inventory

SECTION 16. OTHER INFORMATION

		HMIS III	NFPA
Health hazard	:	1	2
Flammability	:	0	1
Physical Hazard	:	0	
Instability	:		0

Hazard rating and rating systems (e.g. HMIS® III, NFPA): This information is intended solely for the use of individuals trained in the particular system.

Further information

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. Final determination of suitability of any material is the sole responsibility of the user. This information should not constitute a guarantee for any specific product properties.

Changes since the last version are highlighted in the margin. This version replaces all previous versions.
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