



Safety Data Sheet

REFRIGERANT GAS MIX, R-402A

www.advancedspecialtygases.com

Section 1: Product and Company Identification

Advanced Specialty Gases
135 Catron Dr. Reno, NV 89512
775-356-5500

Product Code: REFRIGERANT GAS MIX, R-402A

Section 2: Hazards Identification



Danger

Hazard Classification:

Eye Effects (Category 2.B)
Flammable (Category 1)
Gases Under Pressure

Hazard Statements:

Causes eye irritation
Contains gas under pressure; may explode if heated
Extremely flammable gas

Precautionary Statements

Prevention:

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Wash thoroughly after handling.

Response:

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Eliminate all ignition sources if safe to do so.
Leaking gas fire: Do not extinguish, unless leak can be stopped safely.

Storage:

Protect from sunlight.
Store in well-ventilated place.

Section 3: Composition/Information on Ingredients

CAS #
75-45-6, 354-33-6, 74-98-6

Chemical Substance	Chemical Family	Trade Names
	Refrigerant	

Section 4: First Aid Measures

Skin Contact	Eye Contact	Ingestion	Inhalation	Note to Physicians
Flush with water	Flush with water	Unlikely	Move to fresh air. Get medical attention.	Because of possible disturbances of cardiac rhythm, catecholamine drugs should be used with special caution.

Section 5: Fire Fighting Measures

Suitable Extinguishing Media	Products of Combustion	Protection of Firefighters
Any standard agent	Not available	<ul style="list-style-type: none">▪ Not available▪ Not available▪ Not available▪ Not available

Section 6: Accidental Release Measures

Personal Precautions	Environmental Precautions	Methods for Containment
Always wear recommended personal protective equipment		Stop leak if without risk

Methods for Cleanup	Other Information
Not available	Not available

Section 7: Handling and Storage

Handling	Storage
Store in cool, well ventilated area of low fire risk and out of direct sunlight.	Avoid breathing vapors and liquid contact with eyes, skin, or clothing.

Section 8: Exposure Controls/Personal Protection

Exposure Guidelines
Chlorodifluoromethane: 1000 ppm TWA (8hr) Propane: 2500 ppm TWA (8hr)

Engineering Controls

No specific controls are needed.

Eye Protection	Skin Protection	Respiratory Protection
For normal conditions, wear safety glasses.	General work clothing and leather gloves	Not available

General Hygiene considerations

- Avoid breathing vapor or mist
- Avoid contact with eyes and skin
- Wash thoroughly after handling and before eating or drinking

Section 9: Physical and Chemical Properties

Physical State	Appearance	Color	Change in Appearance	Physical Form	Odor	Taste
Clear, colorless liquid and vapor	Clear colorless liquid and vapor	Clear colorless	Not available	Liquid and vapor	Not available	Not available

Flash Point	Flammability	Partition Coefficient	Autoignition Temperature	Upper Explosive Limits	Lower Explosive Limits
Not available	Not available	Not available	Not available	Not available	Not available

Boiling Point	Freezing Point	Vapor Pressure	Vapor Density	Specific Gravity	Water Solubility	pH	Odor Threshold	Evaporation Rate	Viscosity
-49.2 C	Not available	173 psia at 70F	3.5 (Air =1)	1.14 at 21.1 C	Not available	Neutral	Not available	>1 COMPARED TO: CC14 = 1	Not available

Molecular Weight	Molecular Formula	Density	Weight per Gallon	Volatility by Volume	Volatility	Solvent Solubility
101.5	CHClF2, CHF2CF3, CH3CH2CH3	Not available	Not available	100%	100%	Not available

Section 10: Stability and Reactivity

Stability	Conditions to Avoid	Incompatible Materials
Stable	Stable	Freshly abraded aluminum surfaces. Potassium, calcium, powdered aluminum, magnesium and zinc

Hazardous Decomposition Products	Possibility of Hazardous Reactions
Halogens, halogen acids and possibly carbonyl halides	Will not occur

Section 11: Toxicology Information

Acute Effects

Oral LD50	Dermal LD50	Inhalation
Not available	Not available	Low in acute toxicity in animals

Eye Irritation	Skin Irritation	Sensitization
Liquid contact may cause irritation and frostbite	Irritation would result from defatting action on tissue	Overexposure may cause dizziness and loss of concentration

Chronic Effects

Carcinogenicity	Mutagenicity	Reproductive Effects	Developmental Effects
Not available	Not available	Not available	No data

Section 12: Ecological Information

Fate and Transport

Eco toxicity	Persistence / Degradability	Bioaccumulation / Accumulation	Mobility in Environment
Fish toxicity: not available Invertebrate toxicity: not available Algal toxicity: not available	Not available	Not available	Not available

Phyto toxicity: not available			
Other toxicity: not available			

Section 13: Disposal Considerations

Disposal must comply with federal, state, and local disposal or discharge laws.

Section 14: Transportation Information

U.S. DOT 49 CFR 172.101

Proper Shipping Name	ID Number	Hazard Class or Division	Packing Group	Labeling Requirements	Passenger Aircraft or Railcar Quantity Limitations	Cargo Aircraft Only Quantity Limitations	Additional Shipping Description
Liquefied gas, n.o.s. (Chlorodifluoromethane, Pentafluoroethane, propane)	UN3163	2.2	Not available	Not available	Not available	Not available	Not available

Canadian Transportation of Dangerous Goods

Shipping Name	UN Number	Class	Packing Group / Risk Group
Liquefied gas, n.o.s. (Chlorodifluoromethane, Pentafluoroethane, propane)	UN3163	2.2	Not available

Section 15: Regulatory Information

U.S. Regulations

CERCLA Sections	SARA 355.30	SARA 355.40
Not available	Not available	Not available

SARA 370.21

Acute	Chronic	Fire	Reactive	Sudden Release
Not available	Not available	Not available	Not available	Not available

SARA 372.65

Not available

OSHA Process Safety

Not available

State Regulations

CA Proposition 65
Not available

Canadian Regulations

WHMIS Classification
Not available

National Inventory Status

US Inventory (TSCA)	TSCA 12b Export Notification	Canada Inventory (DSL/NDL)
Not available	Not available	Not available

Section 16: Other Information

NFPA Rating

Health: 2, Flammability: 1, Reactivity: 0
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0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard