

Issue Date: 02-Apr-2002

Revision Date: 21-Apr-2022

Version 1

1. IDENTIFICATION

Product Identifier

Product Name Pinpoint Colormetric Developer for Ammonia

Other means of identification

SDS # AGC-002

Product Code ADP-219

UN/ID No UN1950

Other Information Package type: Aerosol.

Recommended use of the chemical and restrictions on use

Recommended Use Ammonia Detection Spray

Details of the supplier of the safety data sheet

Manufacturer Address

AMERICAN GAS & CHEMICAL COMPANY, LTD
 220 Pegasus Avenue
 Northvale NJ 07647

Emergency Telephone Number

Company Phone Number Phone: 201-767-7300 Fax: 201-767-1741

Emergency Telephone (24 hr) INFOTRAC 1-352-323-3500 (International)
 1-800-535-5053 (North America)

2. HAZARDS IDENTIFICATION

Appearance Opaque yellow suspension

Physical State Liquid

Odor Sweet odor

Classification

Serious eye damage	Category 2B
Specific Target Organ Toxicity (central nervous system)	Category 3
Gases Under Pressure	Compressed Gas

Signal Word

Warning

Hazard Statements

Contains gas under pressure; may explode if heated
 Harmful if inhaled

May cause an allergic skin reaction

Causes eye irritation.

May cause drowsiness or dizziness.



Precautionary Statements - Prevention

Avoid breathing dust/fume/gas/mist/vapors/spray

Use only outdoors or in a well-ventilated area

Contaminated work clothing should not be allowed out of the workplace

Wear protective gloves

Wash thoroughly after handling.

Precautionary Statements - Response

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists: Get medical advice/attention.

IF ON SKIN: Wash with plenty of soap and water

If skin irritation or rash occurs: Get medical advice/attention

Wash contaminated clothing before reuse

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

Call a POISON CENTER or doctor/physician if you feel unwell.

Precautionary Statements - Disposal

Dispose of contents/container in accordance with applicable local/regional/national/international regulations.

Precautionary Statements - Storage

Protect from sunlight. Store in a well-ventilated place

Hazards Not Otherwise Classified (HNOC)

Pressurized container: May burst if heated

May be harmful if swallowed

May be harmful in contact with skin

Causes mild skin irritation

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
1,2-trans-Dichloroethylene	156-60-5	<50
Methyl Nonafluoro-isobutyl Ether	163702-08-7	<14
Methyl Nonafluoro-butyl Ether	163702-07-6	<14
1,1,1,2-Tetrafluoroethane	811-97-2	<22

If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. FIRST-AID MEASURES

First Aid Measures

Eye Contact	Flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. If signs/symptoms persist, get medical attention.
Skin Contact	Wash with soap and water. Take off contaminated clothing. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical advice/attention.
Inhalation	Remove person to fresh air. If you feel unwell, get medical attention.
Ingestion	Do not induce vomiting. Call a physician immediately. Potential for aspiration if swallowed.

Most important symptoms and effects

Symptoms	High vapor concentrations are irritating to the respiratory tract, may cause headaches and dizziness, are anesthetic and may have other central nervous system effects. Prolonged or repeated skin contact tends to remove skin oils possibly leading to irritation and dermatitis. Contact may cause eye irritation.
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Indication of any immediate medical attention and special treatment needed

Notes to Physician	Treat symptomatically.
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5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Non-combustible. Use a fire fighting agent suitable for surrounding fire. In case of fire: Use a fire fighting agent suitable for ordinary combustible material such as water or foam to extinguish.

Unsuitable Extinguishing Media Not determined.

Specific Hazards Arising from the Chemical

Pressurized container: May burst if heated.

Exposure to extreme heat can give rise to thermal decomposition.

Hazardous Decomposition or By-Products

<u>Substance</u>	<u>Condition</u>
Carbon monoxide	During Combustion
Carbon dioxide	During Combustion

Protective equipment and precautions for firefighters

When fire fighting conditions are severe and total thermal decomposition of the product is possible, wear full protective clothing, including helmet, self-contained, positive pressure or pressure demand breathing apparatus, bunker coat and pants, bands around arms, waist and legs, face mask, and protective covering for exposed areas of the head.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

- Personal Precautions** Evacuate area. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Warning! A motor could be an ignition source and could cause flammable gases or vapors in the spill area to burn or explode. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.
- Environmental Precautions** Avoid release to the environment. For larger spills, cover drains and build dikes to prevent entry into sewer systems or bodies of water.

Methods and material for containment and cleaning up

Contain spill. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible. Place in a closed container approved for transportation by appropriate authorities. Clean up residue with an appropriate solvent selected by a qualified and authorized person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and SDS. Seal the container. Dispose of collected material as soon as possible.

7. HANDLING AND STORAGE

Precautions for safe handling

- Advice on Safe Handling** Use personal protection recommended in Section 8. Avoid breathing vapors or mists. Use only in well-ventilated areas. Contaminated work clothing should not be allowed out of the workplace. Avoid prolonged or repeated contact with skin. Do not get in eyes. Do not puncture or incinerate cans.

Conditions for safe storage, including any incompatibilities

- Storage Conditions** Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks, and flame. Store away from incompatible materials. Do not store above the following temperature: 35°C (95°F).
- Incompatible Materials** Strong oxidizers. Alkalis or alkaline earth metals powdered Al, Zn, Be, etc.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
1,2-trans-Dichloroethylene 156-60-5	TWA: 200 ppm	-	-
Methyl Nonafluoro-butyl Ether 163702-07-6	TWA: 750 ppm	-	-
Methyl Nonafluoro-isobutyl Ether 163702-08-7	TWA: 750 ppm	-	-

Appropriate engineering controls

- Engineering Controls** Provide appropriate local exhaust ventilation on open containers. Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapors/spray. If ventilation is not adequate, use respiratory protection equipment.

Individual protection measures, such as personal protective equipment

- Eye/Face Protection** Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended: Indirect Vented Goggles
- Skin and Body Protection** For prolonged or repeated skin contact use suitable protective gloves. Wear appropriate clothing to prevent repeated or prolonged skin contact.
- Respiratory Protection** An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure: Half facepiece or full facepiece air-purifying respirator suitable for organic vapors
- General Hygiene Considerations** Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State	Liquid	Odor	Sweet odor
Appearance	Opaque yellow suspension	Odor Threshold	Not determined
Color	Opaque yellow		
Property	Values	Remarks • Method	
pH	Not determined		
Melting Point/Freezing Point	Not determined		
Boiling Point/Boiling Range	44.6°C / 112°F		
Flash Point	None		
Evaporation Rate	70 [Ref Std: BUOAC=1]	(Water = 1)	
Flammability (Solid, Gas)	Non-flammable aerosol		
Upper Flammability Limits	None		
Lower Flammability Limit	None		
Vapor Pressure	517 mm Hg	@ 20°C (68°F)	
Vapor Density	4.8	(Air=1)	
Specific Gravity	1.37	@ 20°C (68°F)	
Water Solubility	Insoluble in water		
Solubility in other solvents	Slight (less than 10%)		
Partition Coefficient	Not determined		
Auto-ignition Temperature	Not determined		
Decomposition Temperature	Not determined		
Kinematic Viscosity	0.43 centipoise [@ 25 °C]		
Volitile Organic Compounds	685 g/l		
Explosive Properties	Not determined		
Percent Volatile	98%		

10. STABILITY AND REACTIVITY

Reactivity

This material may be reactive with certain agents under certain conditions - see the remaining headings in this section.

Chemical Stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Hazardous Polymerization Hazardous polymerization does not occur.

Conditions to Avoid

Keep out of reach of children. Heat.

Incompatible Materials

Strong bases & strong oxidizing agents.

Hazardous Decomposition Products

Decomposition of this product at temperature above 300° C can form Hydrogen Fluoride (HF), but HF will only accumulate with continuous exposure to excess heat in a sealed vessel.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Eye Contact Moderate Eye Irritation: Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

Skin Contact May be harmful in contact with skin. May cause an allergic skin reaction. Causes mild skin irritation.

Inhalation Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

Ingestion Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
1,2-trans-Dichloroethylene 156-60-5	= 1235 mg/kg (Rat)	> 5 g/kg (Rabbit)	-
Methyl Nonafluoro-isobutyl Ether 163702-08-7	> 5 g/kg (Rat)		= 100,000 ppm (Rat) 4 h
Methyl Nonafluoro-butyl Ether 163702-07-6	> 5 g/kg (Rat)		= 100,000 ppm (Rat) 4 h
1,1,1,2-Tetrafluoroethane 811-97-2	-	-	= 1500 g/m ³ (Rat) 4 h

Target Organ Effects:**Single exposure may cause:**

Central Nervous System (CNS) Depression: Signs/symptoms may include headache, dizziness, drowsiness, incoordination, nausea, slowed reaction time, slurred speech, giddiness, and unconsciousness.

Toxicological Data:

If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

Information on physical, chemical and toxicological effects**Symptoms**

Please see section 4 of this SDS for symptoms.

Delayed and immediate effects as well as chronic effects from short and long-term exposure**Carcinogenicity**

Not classifiable as a human carcinogen.

Legend

*IARC (International Agency for Research on Cancer)
Group 3 IARC components are "not classifiable as human carcinogens"*

Numerical measures of toxicity

Not determined

12. ECOLOGICAL INFORMATION**Ecotoxicity**

Toxic to aquatic life with long lasting effects.

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
1,2-trans-Dichloroethylene 156-60-5		135: 96 h <i>Lepomis macrochirus</i> mg/L LC50 static	EC50 = 1142 mg/L 5 min EC50 = 1546 mg/L 30 min	
1,1,1,2-Tetrafluoroethane 811-97-2		96 hour LC50-Rainbow Trout: 450 mg/L		48 hour EC50- <i>Daphnia magna</i> : 980 mg/L

Persistence/Degradability

Not determined.

Bioaccumulation

Not determined.

Mobility

Chemical Name	Partition Coefficient
1,2-trans-Dichloroethylene 156-60-5	1.48

Other Adverse Effects

Not determined

13. DISPOSAL CONSIDERATIONS**Waste Treatment Methods**

Dispose of contents/ container in accordance with the local/regional/national/international regulations.

Disposal of Wastes

Dispose of waste product in a permitted industrial waste facility. As a disposal alternative, incinerate in a permitted waste incineration facility. Proper destruction may require the use of additional fuel during incineration processes. Combustion products will include halogen acid (HCl/HF/HBr). Facility must be capable of handling halogenated materials. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.

Contaminated Packaging Disposal should be in accordance with applicable regional, national and local laws and regulations.

US EPA Waste Number

Chemical Name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
1,2-trans-Dichloroethylene 156-60-5	U079	Included in waste streams: F024, F025, F039, K073		U079
Chemical Name	RCRA - Halogenated Organic Compounds	RCRA - P Series Wastes	RCRA - F Series Wastes	RCRA - K Series Wastes
1,2-trans-Dichloroethylene 156-60-5	Category I - Volatiles		Toxic waste waste number F025 Waste description: Condensed light ends, spent filters and filter aids, and spent desiccant wastes from the production of certain chlorinated aliphatic hydrocarbons, by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to and including five, with varying amounts and positions of chlorine substitution.	

California Hazardous Waste Status

14. TRANSPORT INFORMATION

Note Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

DOT

UN/ID No UN1950
 Proper Shipping Name Aerosols
 Hazard Class 2.2

IATA

UN/ID No UN1950
 Proper Shipping Name Aerosols, non-flammable
 Hazard Class 2.2

IMDG

UN/ID No UN1950
 Proper Shipping Name Aerosols
 Hazard Class 2.2
 Marine Pollutant This material may meet the definition of a marine pollutant

15. REGULATORY INFORMATION

International Inventories

TSCA Listed

Legend:

- TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
- DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List
- EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
- ENCS - Japan Existing and New Chemical Substances
- IECSC - China Inventory of Existing Chemical Substances
- KECL - Korean Existing and Evaluated Chemical Substances
- PICCS - Philippines Inventory of Chemicals and Chemical Substances

US Federal Regulations

CERCLA

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
1,2-trans-Dichloroethylene 156-60-5	1000 lb 1 lb		RQ 1000 lb final RQ RQ 454 kg final RQ RQ 1 lb final RQ RQ RQ 0.454 kg final RQ

SARA 313

CWA (Clean Water Act)

Component	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
1,2-trans-Dichloroethylene 156-60-5 (<35)			X	

US State Regulations

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
1,2-trans-Dichloroethylene 156-60-5		X	X

16. OTHER INFORMATION

NFPA	Health Hazards	Flammability	Instability	Special Hazards
	2	0	0	Not determined
HMIS	Health Hazards	Flammability	Physical Hazards	Personal Protection
	2	0	0	B

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 Revision Note: 3-Year Update

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End of Safety Data Sheet