



american gas & chemical co. ltd.

220 PEGASUS AVE
NORTHVALE, NEW JERSEY 07647
201-767-7300, FAX 201-767-1741

Safety Data Sheet

Issue Date: 13-Feb-2017

Revision Date: 06-Nov-2023

Version 1

1. IDENTIFICATION

Product Identifier

Product Name Color Change Developer for Hydro 2

Other means of identification

SDS # AGC-269

Product Code Hydro 1

UN/ID No UN1950

Other Information Package type: Aerosol.

Recommended use of the chemical and restrictions on use

Recommended Use Leak 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 Light Orange Suspension

Physical State Liquid

Odor Sweet odor

Classification

Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Skin Corrosion/Irritation	Category 3
Acute Toxicity - Inhalation	Category 4
Gases Under Pressure	Compressed Gas

Signal Word

Warning

Hazard Statements

Harmful if swallowed or inhaled

May cause an allergic skin reaction

May cause eye irritation

May cause drowsiness or dizziness

Contains gas under pressure; may explode if heated



Precautionary Statements - Prevention

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

Wash skin thoroughly after handling

Use only outdoors or in a well-ventilated area

Do not eat, drink or smoke when using this product

Contaminated work clothing should not be allowed out of the workplace

Wear protective gloves

Precautionary Statements - Response

IF ON SKIN: Wash with plenty of soap and water.

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

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 SWALLOWED: Call a Poison Center or doctor/physician if you feel unwell.

Wash contaminated clothing before reuse.

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

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

Toxic to aquatic life with long lasting effects

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
1,2-trans-Dichloroethylene	156-60-5	<50
Proprietary Fluorinated Solvent	Trade Secret	<30
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 Hydrogen fluoride (HF), carbonyl fluoride, carbon monoxide and carbon dioxide

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	Remove all sources of ignition. Use personal protective equipment as required. Ventilate confined spaces.
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

Methods for Containment	Prevent further leakage or spillage if safe to do so.
Methods for Clean-Up	Contain and collect with an inert absorbent and place into an appropriate container for disposal.

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.
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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	-	-
Proprietary Fluorinated Solvent	TWA: 50 ppm	-	-

Appropriate engineering controls

Engineering Controls	Ensure adequate ventilation, especially in confined areas.
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Individual protection measures, such as personal protective equipment

Eye/Face Protection	Use splash goggles or face shield when contact may occur. Provide eyewash, quick drench.
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	Use supplied-air respiratory protection in confined or enclosed spaces.
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 light orange suspension	Odor Threshold	Not determined
Color	Opaque light orange		
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]	
Volatile Organic Compounds	685 g/l	
Explosive Properties	Not determined	
Percent Volatile	98%	

10. STABILITY AND REACTIVITY

<u>Reactivity</u>	Not reactive under normal conditions.
<u>Chemical Stability</u>	Stable under recommended storage conditions.
<u>Possibility of Hazardous Reactions</u>	None under normal processing.
Hazardous Polymerization	Hazardous polymerization does not occur.
<u>Conditions to Avoid</u>	Keep out of reach of children. Heat.
<u>Incompatible Materials</u>	Strong oxidizers. Alkalis or alkaline earth metals powdered Al, Zn, Be, etc.
<u>Hazardous Decomposition Products</u>	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)	-
Proprietary Fluorinated Solvent	>2,000mg/kg	>2,000mg/kg	>24.8mg/L (3,000 ppm)
1,1,1,2-Tetrafluoroethane 811-97-2	-	-	= 1500 g/m ³ (Rat) 4 h

Information on physical, chemical and toxicological effects

Symptoms	Please see section 4 of this SDS for symptoms.
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Delayed and immediate effects as well as chronic effects from short and long-term exposure

Carcinogenicity	Not classifiable as a human carcinogen.
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Legend

IARC (International Agency for Research on Cancer)

Group 3 IARC components are "not classifiable as human carcinogens"

<u>Numerical measures of toxicity</u>	Not determined
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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
Proprietary Fluorinated Solvent	ErC50>213mg/L EbC50>213mg/L	LC50 (96 hr) (Carp) >76mg/L	EC50>94mg/L – 48hr	

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

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

Contaminated Packaging

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

US EPA Waste Number

Chemical Name 1,2-trans-Dichloroethylene 156-60-5	RCRA U079	RCRA - Basis for Listing Included in waste streams: F024, F025, F039, K073	RCRA - D Series Wastes	RCRA - U Series Wastes U079
Chemical Name 1,2-trans-Dichloroethylene 156-60-5	RCRA - Halogenated Organic Compounds Category I - Volatiles	RCRA - P Series Wastes	RCRA - F Series Wastes 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.	RCRA - K Series Wastes

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
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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 0.454 kg final RQ

SARA 313**SARA 311/312**

Acute: Yes Chronic: No Reactive: Yes Sudden Release: No

SARA 302

Not regulated

SARA 304

Not regulated

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**

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Not determined

HMIS**Health Hazards****Flammability****Physical Hazards****Personal Protection**

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13-Feb-2017

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06-Nov-2023

Revision Note:

Formula Revision

Disclaimer

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End of Safety Data Sheet