

SAFETY DATA SHEET



Conforms to regulation (EC) no. EU 453/2010

SECTION 1 - IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product Identifier

Product Name: Glass Free

Product Number: EC-621

1.2 Relevant Identified Uses of the Substance/Mixture and Uses Advised Against

Investigational research by professional users

1.3 Details of the Supplier of the Safety Data Sheet

Manufacturer

National Diagnostics
305 Patton Drive
Atlanta, GA 30036
(404) 699-2121
(800) 526-3867
info@nationaldiagnostics.com

1.4 Emergency Telephone Number

ChemTel Inc.

Contract number MIS8894340
1-800 255-3924 (United States, Canada, Puerto Rico & US Virgin Islands)
01-800-099-0731 (Mexico)
400-120-0751 (China)
000-800-100-4086 (India)
1-300-954-583 (Australia)
0-800-591-6042 (Brazil)
+1-813-255-3924 (All other regions)

SECTION 2 - HAZARDS IDENTIFICATION

2.1 Classification of the Substance or Mixture

Classification according to Regulation (EC) No. 1272/2008 [EU-GHS/CLP]

H225 - Flammable Liquids (Category 2)
H302 - Acute Toxicity-Oral (Category 4)
H304 - Aspiration Hazard (Category 1)
H314 - Skin Corrosion/Irritation (Category 1A)
H331 - Acute Toxicity-Inhalation (Category 3)
H340 - Germ Cell Mutagenicity (Category 1B)
H350 - Carcinogenicity (Category 1B)

2.2 Label Elements

GHS LABEL ELEMENTS AND CLASSIFICATION

GHS Label Elements



DANGER

H225 - Highly flammable liquid and vapor.
H302 - Harmful if swallowed
H304 - May be fatal if swallowed and enters airways.
H314 - Causes severe skin burns and eye damage.
H331 - Toxic if inhaled.
H340 - May cause genetic defects.
H350 - May cause cancer.
EUH014 - Reacts violently with water.
EUH071 - Corrosive to the respiratory system.
P210 - Keep away from heat/sparks/open flames/hot surfaces---No smoking.
P260 - Do not breathe dust/fumes/gas/mist/vapors/spray.
P310 - Immediately call a POISON CENTER or doctor/physician.
P331 - Do NOT induce vomiting.
P309+P311 - IF exposed or if you feel unwell: Call a POISON CENTER or doctor/physician.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.

2.3 Other Hazards

None found.

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixture

Chemical Names/Description

Dichlorodimethylsilane in hydrocarbon solvent.

Component List

Component	% Comp.	CAS #	EC #	1278/2008 Classification
Dimethyldichlorosilane	5 - 15	75-78-5	200-901-0	H225, H302, H314, H331, EUH014, EUH071
Alkyl Hydrocarbons	85 - 95	64742-48-9	265-150-3	H304, H340, H350

SECTION 4 - FIRST AID MEASURES

4.1 Description of First Aid Measures

Inhalation

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

Ingestion

DO NOT INDUCE VOMITING. If swallowed and the person is conscious, immediately give large amounts of water. Get medical attention.

Skin

Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.

Eyes

Immediately flush eyes with plenty of water for at least fifteen minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

4.2 Most Important Symptoms and Effects, Both Acute and Delayed

Inhalation

Dimethyldichlorosilane:

Labored breathing, shortness of breath, chest pain and pulmonary edema. Onset of symptoms may be delayed several hours.

Alkyl Hydrocarbons:

Headaches, dizziness, anesthesia, drowsiness, unconsciousness, and other central nervous system effects, including death.

Ingestion

Dimethyldichlorosilane:

Severe burns of the mouth and stomach.

Alkyl Hydrocarbons:

Minimal toxicity by ingestion.

Skin

Dimethyldichlorosilane:

Redness, pain, and ulceration of the skin.

Alkyl Hydrocarbons:

Dermatitis may occur with frequent or prolonged contact.

Eyes

Dimethyldichlorosilane:

Severe pain, extreme redness, and blurring of vision.

Alkyl Hydrocarbons:

Product is only slightly irritating to eye tissue, non injurious.

4.3 Indication of Any Immediate Medical Attention and Special Treatment Needed

Unknown/not applicable

SECTION 5 - FIRE FIGHTING MEASURES

5.1 Extinguishing media

Dry powder, foam, carbon dioxide. (Water may be ineffective.)

5.2 Special Hazards Arising from the Substance/Mixture

Hazardous Combustion Products

Hydrogen chloride gas and phosgene gas may be formed upon heating.

Hazardous Decomposition Products

Hydrogen chloride gas and phosgene gas may be formed upon heating.

Hazardous Polymerization

Will not occur under normal conditions of use (See Sections 10.4 & 10.5).

5.3 Advice for Firefighters

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

5.4 Further Information

No data available.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions

Wear appropriate protective equipment as specified in Section 8.

6.2 Environmental Precautions

Prevent discharge into the environment. Dike spills and stop leakage where practical. Do not allow material to enter drains.

6.3 Methods and Materials for Containment and Cleaning Up

Eliminate source of ignition. Ventilate area. Cover with inert, absorbant material to confine spill and sweep or shovel into container. Close container tightly. Avoid breathing vapors. Do not allow contact with water.

6.4 References to Other Sections

For disposal information, see Section 13. For protective clothing and equipment, see Section 8.

SECTION 7 - HANDLING AND STORAGE

7.1 Precautions for Safe Handling

Avoid contact and inhalation. Do not get in eyes, on skin, on clothing. Wash thoroughly after handling. Transfer methods should avoid static sparks. Use explosion proof ventilation.

7.2 Conditions for Safe Storage (including any incompatibles)

Keep in a tightly closed container, stored in a cooled, dry, ventilated area away from sources of heat or ignition. Protect from physical damage. Isolate from incompatible materials (section 10).

Incompatibles

Dimethyldichlorosilane:

Reacts vigorously with water to generate hydrogen chloride. Strong oxidizers.

Alkyl Hydrocarbons:

Strong oxidizing agents.

7.3 Specific End Uses

Investigational research by professional users

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PRECAUTIONS

8.1 Control Parameters

Component: Dimethyldichlorosilane

ACGIH Threshold Limit Value (TLV): None established

OSHA Permissible Exposure Limit (PEL): None established

Component: Alkyl Hydrocarbons

ACGIH Threshold Limit Value (TLV): 300 ppm

OSHA Permissible Exposure Limit (PEL): None established

8.2 Exposure Controls

Engineering Controls

A system of local and/or general exhaust is recommended to keep employee exposures low. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source.

Respiratory Protection

For conditions of use where exposure to the substance is apparent, consult an industrial hygienist. For emergencies, or instances where the exposure levels are not known, use a full-facepiece positive-pressure, air-supplied respirator.

Eye Protection

Use chemical safety goggles and/or a full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area.

Skin Protection

Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on Basic Physical & Chemical Properties

a. Appearance	Colorless liquid	b. Odor	Slight acid odor
c. Odor Threshold	N.A.	d. pH	Not Applicable

e. Melting/Freezing Point (°C)	0	f. Boiling point (°C)	158
g. Flash Point (°C)	-4	h. Evaporation Rate	<1
i. Flammability	Combustible	j. Upper/Lower Flammability or Explosive Limits	No Data
k. Vapor Pressure	115mmHg @ 20C	l. Vapor Density (Air = 1)	4.5
m. Relative Density	.80	n. Water Solubility	Reacts
o. Partition Coefficient n-octanol/water	Mixture	p. Autoignition Temperature (°C)	No Data
q. Decomposition Temperature (°C)	N.A.	r. Viscosity	No data available.
s. Explosive Properties	N.A.	t. Oxidizing Properties	Not an oxidizer

SECTION 10 - STABILITY AND REACTIVITY

10.1 Reactivity

Contains silanes- reacts with glass and water.

10.2 Chemical Stability

Stable under ordinary conditions of use and storage. Water reactive.

10.3 Possibility of Hazardous Reactions

Will not occur under normal conditions of use (See Sections 10.4 & 10.5).

10.4 Conditions to Avoid

Heat, flames, ignition sources, and incompatibles.

10.5 Incompatible Materials

Dimethyldichlorosilane:

Reacts vigorously with water to generate hydrogen chloride. Strong oxidizers.

Alkyl Hydrocarbons:

Strong oxidizing agents.

10.6 Hazardous Decomposition Products

Hydrogen chloride gas and phosgene gas may be formed upon heating.

SECTION 11 - TOXICOLOGICAL INFORMATION

Product LD50 Values

Oral Rat LD50 (mg/kg)

57 ml/kg

Dermal Rabbit LD50 (mg/kg)

No Data

Component Cancer List Status

	NTP Carcinogen		IARC Category
	Known	Anticipated	
Dimethyldichlorosilane	No	No	None
Alkyl Hydrocarbons	No	No	None

Potential Health Effects

Inhalation

Dimethyldichlorosilane

Inhalation of vapors irritates the mucous membranes and may cause lung injury.

Alkyl Hydrocarbons

High vapor/aerosol concentrations (greater than approximately 1000 ppm) are irritating to the eyes and the respiratory tract, may cause headaches, dizziness, anesthesia, drowsiness, unconsciousness, and other central nervous system effects, including death.

Ingestion

Dimethyldichlorosilane

May be fatal if swallowed. Swallowing causes severe gastrointestinal damage to occur.

Alkyl Hydrocarbons

Minimal toxicity by ingestion, though small amounts of this product aspirated into the respiratory system during ingestion or vomiting may cause mild to severe pulmonary injury, possibly progressing to death.

Skin

Dimethyldichlorosilane

Severe burns may occur from even a short time of contact. May be absorbed through the skin.

Alkyl Hydrocarbons

Low order or toxicity. Frequent or prolonged contact may irritate and cause dermatitis. Skin contact may aggravate an existing dermatitis condition.

Eyes**Dimethyldichlorosilane**

Eye contact produces severe burns, pain, swelling, corneal erosions and possibly blindness.

Alkyl Hydrocarbons

Slightly irritating but does not injure eye tissue.

Carcinogenicity**Dimethyldichlorosilane**

Not listed as a known or anticipated human carcinogen by NTP or IARC.

Alkyl Hydrocarbons

Not listed by NTP, IARC, or OSHA.

Mutagenicity**Dimethyldichlorosilane**

No information found.

Alkyl Hydrocarbons

No information available.

Reproductive Toxicity**Dimethyldichlorosilane**

No information found.

Alkyl Hydrocarbons

No information available.

Teratogenic Effects**Dimethyldichlorosilane**

No information found.

Alkyl Hydrocarbons

No information available.

Routes of Entry**Dimethyldichlorosilane**

Inhalation, ingestion, or skin contact.

Alkyl Hydrocarbons

Inhalation or by skin contact.

Target Organ Statement**Dimethyldichlorosilane**

No information found.

Alkyl Hydrocarbons

No information available.

SECTION 12 - ECOLOGICAL INFORMATION**12.1 Toxicity****COMPONENT: Dimethyldichlorosilane**

	Vertebrates	Invertebrates	Algae	Microorganisms
Aquatic Toxicity (ppm unless otherwise noted)	NOEC (96hr, rainbow trout) >126mg/l	NOEC (48hr, daphnia) 119mg/l	NOEC (72hr) >118mg/l	EC50 160mg/l
	Birds	Arthropods	Plants	Microorganisms
Terrestrial Environment Toxicity (ppm unless otherwise noted)	No data	No data	No data	No data

COMPONENT: Alkyl Hydrocarbons

	Vertebrates	Invertebrates	Algae	Microorganisms
Aquatic Toxicity (ppm unless otherwise noted)	LL50 (water fraction, 96 hour rainbow trout) >1000mg/l	LL50 (48 hr, WAF) >1000mg/l	NOELR (WAF 48 hrs) 1000mg/l	No data
	Birds	Arthropods	Plants	Microorganisms
Terrestrial Environment Toxicity (ppm unless otherwise noted)	No data	No data	No data	No data

12.2 Persistence and Degradability

Dimethyldichlorosilane
Not Biodegradable

Alkyl Hydrocarbons
Inherently biodegradable

12.3 Bioaccumulative Potential

Dimethyldichlorosilane
No data

Alkyl Hydrocarbons
No data

12.4 Mobility in Soil

Dimethyldichlorosilane
No data

Alkyl Hydrocarbons
No data

12.5 Results of PBT and vPvB Assessment

Dimethyldichlorosilane
Not PBT or vPvB

Alkyl Hydrocarbons
Not PBT or vPvB

12.6 Other Adverse Effects

Dimethyldichlorosilane
None

Alkyl Hydrocarbons
None

SECTION 13 - DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods

Offer surplus or non-recyclable product to licensed disposal company. Disposal is subject to user compliance with applicable law and product characteristics at time of disposal. Dispose of packaging as product.

SECTION 14 - TRANSPORT INFORMATION

	ADR/RID	IATA	IMO	DOT
14.1 UN Number	1162	1162	1162	1162
14.2 Shipping Name	Dimethyldichlorosilane	Dimethyldichlorosilane (forbidden by air)	Dimethyldichlorosilane	Dimethyldichlorosilane
14.3 Hazard Class	3,8	3,8	3,8	3,8
14.4 Packing Group	II	II	II	II
14.5 Environmental Hazards	N.A.	N.A.	N.A.	N.A.
14.6 Special Precautions	N.A.	N.A.	N.A.	N.A.

SECTION 15 - REGULATORY INFORMATION

15.1 Safety, Health and Environmental Regulations/Legislation Specific for the Substance/Mixture

United States

TSCA Regulatory Statement

All intentional ingredients are listed on the TSCA Inventory.

SARA 311/312 Hazard Categories

Component	Fire	Pressure	Reactivity	Acute	Chronic
Dimethyldichlorosilane	Yes	No	Yes	Yes	Yes
Alkyl Hydrocarbons	No	No	No	Yes	Yes

Europe

EEC Regulatory

All intentional ingredients are listed on the European EINECS Inventory.

SECTION 16 - OTHER INFORMATION

Revisional Updates

4/26/2019 - Updated Section 1.4
5/15/2018 - Released Version 3.0
5/29/2015 - Updated Sections 2.1 and 3.2
12/13/2013 - Released Version 1.0

NFPA Codes

Health 3 Flammability 3 Reactivity 1

Dangers

Dimethyldichlorosilane

H225 - Highly flammable liquid and vapor.

H302 - Harmful if swallowed

H331 - Toxic if inhaled.

H314 - Causes severe skin burns and eye damage.

EUH014 - Reacts violently with water.

EUH071 - Corrosive to the respiratory system.

Alkyl Hydrocarbons

H304 - May be fatal if swallowed and enters airways.

H340 - May cause genetic defects.

H350 - May cause cancer.

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