

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product name : Diamond Glass

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Protective coating
Restrictions on use : Any other unidentified use is not recommended.

1.3. Supplier

Manufacturer

NGNT Material Sciences SA
Chem. du Mont-de-Brez 2
1405 Pomy
Switzerland
T +41 (0)58 300 1080

Importer

NGNT Material Sciences SA
Rockefeller Center - Concourse- Suite 2002
610 Fifth Avenue
New York NY 10185
United States
T +1 917 522 2111 (Hours: 10 AM - 5 PM)

1.4. Emergency telephone number

Emergency number : Phone number (US): 917 522 2111; Hours - 9 AM - 5 PM

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Flammable liquids, Category 3
Aspiration hazard, Category 1
Hazardous to the aquatic environment — Chronic Hazard, Category 2

Flammable liquid and vapour.
May be fatal if swallowed and enters airways.
Toxic to aquatic life with long lasting effects.

2.2. GHS Label elements, including precautionary statements

GHS US labelling

Hazard pictograms (GHS US) :



Signal word (GHS US) :

Danger

Hazard statements (GHS US) :

Flammable liquid and vapour.
May be fatal if swallowed and enters airways.
Toxic to aquatic life with long lasting effects.

Precautionary statements (GHS US) :

Keep out of reach of children.
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Avoid release to the environment.
If swallowed: Immediately call a POISON CENTER.
Do NOT induce vomiting.
Collect spillage.
Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

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2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS US classification
Hydrocarbons, C10-C12, isoalkanes, <2% aromatics	-	≤99	Flam. Liq. 3 Asp. Tox. 1 Aquatic Chronic 2
silicon tetrachloride	CAS-No.: 10026-04-7	≤0,5	Acute Tox. 3 (Oral) Acute Tox. 3 (Inhalation) Skin Corr. 1A Eye Dam. 1 STOT SE 3

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general : Call a physician immediately.
First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact : Rinse skin with water/shower. Take off immediately all contaminated clothing.
First-aid measures after eye contact : Rinse eyes with water as a precaution.
First-aid measures after ingestion : Do not induce vomiting. Call a physician immediately.

4.2. Most important symptoms and effects (acute and delayed)

Potential adverse human health effects and symptoms : May be fatal if swallowed and enters airways.
Symptoms/effects after ingestion : Risk of lung oedema.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically. Based on the assessment of risk of hazardous chemical agents, the competent person will settle the appropriate medical surveillance protocol, in accordance with the national legislation, in order to protect the health status of the workers.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

5.2. Specific hazards arising from the chemical

Fire hazard : Flammable liquid and vapour.

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Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Remove ignition sources.

6.1.1. For non-emergency personnel

Protective equipment : Wear recommended personal protective equipment.

Emergency procedures : Ventilate spillage area. No open flames, no sparks, and no smoking.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment. Do not let the product enter drainage system, surface and ground-water or soil. Contact local authorities in case of environmental release. Do not empty into drains.

6.3. Methods and material for containment and cleaning up

For containment : Collect spillage.

Methods for cleaning up : Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.

Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer also to sections 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Flammable vapours may accumulate in the container. Use explosion-proof equipment. Wear personal protective equipment.

Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Ground/bond container and receiving equipment.

Storage conditions : Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store locked up.

Incompatible materials : Strong oxidizing agents.

Heat and ignition sources : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Storage area : Store in a dry, well ventilated place away from sources of heat, ignition and direct sunlight.

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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Hydrocarbons, C10-C12, isoalkanes, <2% aromatics

No additional information available

silicon tetrachloride (10026-04-7)

No additional information available

Monitoring methods

Monitoring methods

The measurement of substances in the workplace must be carried out with standardized methods (e.g. UNI EN 689:2019: Workplace atmospheres - Guide for assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy; UNI EN 482:2015: Workplace exposure - General requirements for the performance of procedures for the measurement of chemical agents) or, failing that, with appropriate methods.

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.
Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Wear recommended personal protective equipment.

Hand protection:

Protective gloves

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid
Colour : Transparent
Odour : light solvent smell
Odour threshold : No data available
pH : Neutral
Melting point : Not applicable
Freezing point : No data available
Boiling point : No data available
Flash point : 45 °C
Relative evaporation rate (butylacetate=1) : No data available
Flammability (solid, gas) : Not applicable.
Vapour pressure : No data available

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Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive limits	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Flammable liquid and vapour.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

Strong oxidizing agents.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (dermal)	: Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (inhalation)	: Not classified (Based on available data, the classification criteria are not met)

Hydrocarbons, C10-C12, isoalkanes, <2% aromatics

LD50 oral rat	> 5000 mg/g
LD50 dermal rabbit	≥ 3160 mg/kg bodyweight OECD Guideline 402 (Acute Dermal Toxicity)
LC50 Inhalation - Rat	> 5000 mg/m ³

silicon tetrachloride (10026-04-7)

LD50 oral rat	238 mg/kg bodyweight
LD50 dermal rabbit	≥ 10000 mg/kg bodyweight

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silicon tetrachloride (10026-04-7)	
ATE US (oral)	238 mg/kg bodyweight
ATE US (gases)	700 ppmv/4h
ATE US (vapours)	4.6 mg/l/4h
ATE US (dust,mist)	0.5 mg/l/4h

Skin corrosion/irritation	: Not classified (Based on available data, the classification criteria are not met) Hydrocarbons, C10-C12, isoalkanes, <2% aromatics are not classified as skin irritant according to CLP Regulation (test on rabbits according to OECD Guideline 404) Silicon tetrachloride is corrosive to the skin pH: Neutral
Serious eye damage/irritation	: Not classified (Based on available data, the classification criteria are not met) Hydrocarbons, C10-C12, isoalkanes, <2% aromatics cause only slight eye irritation (test on rabbits); the classification as an eye irritant is not warranted. Silicon tetrachloride cause damages to the eyes pH: Neutral
Respiratory or skin sensitisation	: Not classified (Based on available data, the classification criteria are not met) Hydrocarbons, C10-C12, isoalkanes, <2% aromatics: based on the available data (Magnusson and Kligman Guinea-Pig Maximization tests (OECD TG 406)), the substance is not considered to be a skin sensitizer.
Germ cell mutagenicity	: Not classified (Based on available data, the classification criteria are not met) Hydrocarbons, C10-C12, isoalkanes, <2% aromatics: all genetic toxicity studies performed are negatives. Silicon tetrachloride: several studies have been performed (Ames test; Mutagenicity (mammal cell test): chromosome aberration; In vitro mammalian cell gene mutation test); all the tests performed were negative
Carcinogenicity	: Not classified (Based on available data, the classification criteria are not met) Hydrocarbons, C10-C12, isoalkanes, <2% aromatics are not classified as carcinogens.
Reproductive toxicity	: Not classified (Based on available data, the classification criteria are not met)

silicon tetrachloride (10026-04-7)	
Additional data	No adverse effects for reproduction were observed

STOT-single exposure : Not classified (Based on available data, the classification criteria are not met)

Hydrocarbons, C10-C12, isoalkanes, <2% aromatics	
Additional data	There are no studies indicating that the substance is a respiratory irritant.

silicon tetrachloride (10026-04-7)	
STOT-single exposure	May cause respiratory irritation.
Additional data	The substance causes irritation to the respiratory tract

STOT-repeated exposure : Not classified (Based on available data, the classification criteria are not met)

Hydrocarbons, C10-C12, isoalkanes, <2% aromatics	
NOAEL (subchronic, oral, animal/male, 90 days)	> 1000 mg/kg bodyweight
Additional data	No significant adverse effects were observed following repeated dose exposure to the substance.

Aspiration hazard : May be fatal if swallowed and enters airways.

Viscosity, kinematic : No data available

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Potential adverse human health effects and symptoms : May be fatal if swallowed and enters airways.
Symptoms/effects after ingestion : Risk of lung oedema.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Toxic to aquatic life with long lasting effects.

Hydrocarbons, C10-C12, isoalkanes, <2% aromatics	
LC50 - Fish [1]	> 1000 mg/l LL50, Oncorhynchus mykiss
EC50 - Crustacea [1]	> 1000 mg/l EL50, Daphnia magna
silicon tetrachloride (10026-04-7)	
LC50 - Fish [1]	> 245 mg/l Brachydanio rerio (zebra-fish)
EC50 - Crustacea [1]	> 844 mg/l Daphnia magna (Water flea)
NOEC chronic algae	≥ 100 mg/l Pseudokirchneriella subcapitata
Additional ecotoxicological information	static test EC50 - activated sludge - > 100 mg/l - 3 h (OECD Test Guideline 209)

12.2. Persistence and degradability

Hydrocarbons, C10-C12, isoalkanes, <2% aromatics	
Persistence and degradability	Readily biodegradable in water.
silicon tetrachloride (10026-04-7)	
Persistence and degradability	The substance is inorganic, the concept of biodegradation is not applicable.

12.3. Bioaccumulative potential

Hydrocarbons, C10-C12, isoalkanes, <2% aromatics	
Bioaccumulative potential	not expected.
silicon tetrachloride (10026-04-7)	
Bioaccumulative potential	Low bioaccumulation potential.

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Regional legislation (waste) : Disposal must be done according to official regulations.
Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.
Additional information : Flammable vapours may accumulate in the container.
Ecology - waste materials : Do not empty into drains. Avoid release to the environment.

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SECTION 14: Transport information

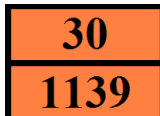
In accordance with ADR / IMDG / IATA / RID

ADR	IMDG	IATA	RID
14.1. UN number or ID number			
UN 1139	UN 1139	UN 1139	UN 1139
14.2. UN proper shipping name			
COATING SOLUTION	COATING SOLUTION	Coating solution	COATING SOLUTION
Transport document description			
UN 1139 COATING SOLUTION, 3, III, (D/E), ENVIRONMENTALLY HAZARDOUS	UN 1139 COATING SOLUTION, 3, III, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS	UN 1139 Coating solution, 3, III, ENVIRONMENTALLY HAZARDOUS	UN 1139 COATING SOLUTION, 3, III, ENVIRONMENTALLY HAZARDOUS
14.3. Transport hazard class(es)			
3	3	3	3
14.4. Packing group			
III	III	III	III
14.5. Environmental hazards			
Dangerous for the environment: Yes	Dangerous for the environment: Yes Marine pollutant: Yes	Dangerous for the environment: Yes	Dangerous for the environment: Yes
No supplementary information available			

14.6. Special precautions for user

Overland transport

Classification code (ADR)	: F1
Limited quantities (ADR)	: 5I
Excepted quantities (ADR)	: E1
Packing instructions (ADR)	: P001, IBC03, LP01, R001
Mixed packing provisions (ADR)	: MP19
Portable tank and bulk container instructions (ADR)	: T2
Portable tank and bulk container special provisions (ADR)	: TP1
Tank code (ADR)	: LGBF
Vehicle for tank carriage	: FL
Transport category (ADR)	: 3
Special provisions for carriage - Packages (ADR)	: V12
Special provisions for carriage - Operation (ADR)	: S2
Hazard identification number (Kemler No.)	: 30
Orange plates	:



Tunnel restriction code (ADR)	: D/E
EAC code	: •3Y

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Transport by sea

Special provisions (IMDG)	: 955
Limited quantities (IMDG)	: 5 L
Excepted quantities (IMDG)	: E1
Packing instructions (IMDG)	: P001, LP01
IBC packing instructions (IMDG)	: IBC03
Tank instructions (IMDG)	: T2
Tank special provisions (IMDG)	: TP1
EmS-No. (Fire)	: F-E
EmS-No. (Spillage)	: S-E
Stowage category (IMDG)	: A
Properties and observations (IMDG)	: Miscibility with water depends upon the composition.

Air transport

PCA Excepted quantities (IATA)	: E1
PCA Limited quantities (IATA)	: Y344
PCA limited quantity max net quantity (IATA)	: 10L
PCA packing instructions (IATA)	: 355
PCA max net quantity (IATA)	: 60L
CAO packing instructions (IATA)	: 366
CAO max net quantity (IATA)	: 220L
Special provisions (IATA)	: A3
ERG code (IATA)	: 3L

Rail transport

Classification code (RID)	: F1
Limited quantities (RID)	: 5L
Excepted quantities (RID)	: E1
Packing instructions (RID)	: P001, IBC03, LP01, R001
Mixed packing provisions (RID)	: MP19
Portable tank and bulk container instructions (RID)	: T2
Portable tank and bulk container special provisions (RID)	: TP1
Tank codes for RID tanks (RID)	: LGBF
Transport category (RID)	: 3
Special provisions for carriage – Packages (RID)	: W12
Colis express (express parcels) (RID)	: CE4
Hazard identification number (RID)	: 30

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

Commercial status of components according to the United States Environmental Protection Agency's Toxic Substances Control Act (TSCA):

Name	CAS-No.	Listing	Commercial status	Flags
Hydrocarbons, C10-C12, isoalkanes, <2% aromatics		Present	-	
silicon tetrachloride	10026-04-7	Present	Active	

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15.2. International regulations

CANADA

silicon tetrachloride (10026-04-7)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

silicon tetrachloride (10026-04-7)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16: Other information

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Data sources : ECHA Database. SDS suppliers. PubChem Database.

Training advice : Training instructions: Comply with the provisions of Directive 98/24/EC and subsequent amendments and national implementations.

Safety Data Sheet (SDS), USA

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.