PRO Hydro SPRAY

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
Issue date: 11/22/2021 Version: 1.0

SECTION 1: Identification

1.1. Identification

Product form	:	Mixture
Product name	:	PRO HYDRO SPRAY

1.2. Recommended use and restrictions on use

Use of the substance/mixture	:	Hydrophobic Layer
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	Flammable liquid and vapour.
Skin corrosion/irritation, Category 2	Causes skin irritation.
Serious eye damage/eye irritation, Category 2	Causes serious eye irritation.
Specific target organ toxicity — Repeated exposure, Category 2	May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard, Category 1	May be fatal if swallowed and enters airways.
Hazardous to the aquatic environment — Chronic Hazard, Category 2	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. Causes skin irritation. Causes serious eye irritation. May cause damage to organs through prolonged or repeated exposure. Toxic to aquatic life with long lasting effects.

Precautionary statements (GHS US)	:	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid release to the environment. Wear protective clothing, eye protection, face protection. If swallowed: Immediately call a POISON CENTER. Get medical advice/attention if you feel unwell. Do NOT induce vomiting. Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

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	-	< 95	Flam. Liq. 3 Asp. Tox. 1 Aquatic Chronic 2
Triethoxy(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl)silane	CAS-No.: 51851-37-7	< 2,5	STOT RE 2
silicon tetrachloride	CAS-No.: 10026-04-7	< 1,5	Acute Tox. 3 (Oral) Acute Tox. 3 (Inhalation) Skin Corr. 1A Eye Dam. 1 STOT SE 3
tetraethyl silicate; ethyl silicate	CAS-No.: 78-10-4	< 0,075	Flam. Liq. 3 Acute Tox. 4 (Inhalation) Eye Irrit. 2 STOT SE 3
methanol	CAS-No.: 67-56-1	< 0,03	Flam. Liq. 2 Acute Tox. 3 (Oral) Acute Tox. 3 (Dermal) Acute Tox. 3 (Inhalation) STOT SE 1

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

First-aid measures after eye contact	:	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.
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	:	Causes skin irritation. Causes serious eye irritation. May cause damage to organs through prolonged or repeated exposure. May be fatal if swallowed and enters airways.
Symptoms/effects after skin contact	:	Irritation.
Symptoms/effects after eye contact	:	Eye irritation.
Symptoms/effects after ingestion	:	Risk of lung oedema.
Chronic symptoms	:	May cause damage to organs through prolonged or repeated exposure.

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.
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

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. Do not breathe vapours, fume. Avoid contact with skin and eyes. Evacuate unnecessary personnel.

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

Toxic to aquatic life with long lasting effects. 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. Do not breathe vapours. Avoid contact with skin and eyes.
Hygiene measures	:	Wash contaminated clothing before reuse. 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.
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.

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

methanol (67-56-1)

USA - ACGIH - Occupational Exposure Limits

Local name	Methanol
ACGIH OEL TWA [ppm]	200 ppm
ACGIH OEL STEL [ppm]	250 ppm
Remark (ACGIH)	TLV® Basis: Headache; eye dam; dizziness; nausea. Notations: Skin; BEI
ACGIH chemical category	Skin - potential significant contribution to overall exposure by the cutaneous route
Regulatory reference	ACGIH 2021

USA - OSHA - Occupational Exposure Limits

Local name	Methyl alcohol
OSHA PEL TWA [1]	260 mg/m³
OSHA PEL TWA [2]	200 ppm
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1

Triethoxy(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl)silane (51851-37-7)

No additional information available

tetraethyl silicate; ethyl silicate (78-10-4)

USA - ACGIH - Occupational Exposure Limits

Local name	Ethyl silicate
ACGIH OEL TWA [ppm]	10 ppm
Remark (ACGIH)	TLV® Basis: URT & eye irr; kidney dam
Regulatory reference	ACGIH 2021

tetraethyl silicate; ethyl silicate (78-10-4)	
USA - OSHA - Occupational Exposure Limits	
Local name	Ethyl silicate
OSHA PEL TWA [1]	850 mg/m³
OSHA PEL TWA [2]	100 ppm
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1

Monitoring methods	
Monitoring methods	The measurement of substances at the workplace must be carried out with standardized methods or, failing that, with appropriate methods.

8.2. Appropriate engineering controls

Appropriate engineering controls	:	Ensure good ventilation of the work station. Appropriate risk management measures, that must be adopted at the workplace, have to be selected and applied, following the risks assessment carried out by the employer, in connection with his working activity. If the results of this evaluation show that the general and collective prevention measures are not sufficient to reduce the risk, and if you cannot prevent exposure to the mixture by other means, adequate personal protective equipment must be adopted, complying with the relevant technical national/international standards.
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:
Wear protective tightly fitting glasse or protective visor (EN 166).

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
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

No additional information available

10.6. Hazardous decomposition products

Toxic fumes may be released.

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/m³

silicon tetrachloride (10026-04-7)	
LD50 oral rat	238 mg/kg bodyweight
LD50 dermal rabbit	≥ 10000 mg/kg bodyweight
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

methanol (67-56-1)	
ATE US (oral)	100 mg/kg bodyweight

methanol (67-56-1)	
ATE US (dermal)	300 mg/kg bodyweight
ATE US (gases)	700 ppmv/4h
ATE US (vapours)	3 mg/l/4h
ATE US (dust,mist)	0.5 mg/l/4h
Additional data	Methanol- In humans, transient central nervous system (CNS) effects appear above blood methanol levels of 200 mg/L and serious ocular symptoms appear above 500 mg/L. The minimal acute methanol dose to humans that can result in death is considered to be 300 to 1,000 mg/kg by ingestion, and fatalities have occurred in untreated patients with initial methanol blood levels in the range of 1,500- 2,000 mg/L

Triethoxy(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl)silane (51851-37-7)	
LD50 oral rat	> 2000 mg/kg bodyweight OECD Guideline 423
LD50 dermal rat	> 2000 mg/kg bodyweight OECD Guideline 402

tetraethyl silicate; ethyl silicate (78-10-4)	
LD50 oral rat	> 2500 mg/kg bodyweight
ATE US (gases)	4500 ppmv/4h
ATE US (vapours)	16.83 mg/l/4h
ATE US (dust,mist)	1.5 mg/l/4h

Skin corrosion/irritation	:	Causes skin irritation. 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 Methyltrimethoxysilane: only mild effects were observed (test on rabbits); the substance is not classified. Methanol. In vivo test on rabbit: no adverse effect observed (not irritating). Triethoxy(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl)silane: based on a study according to OECD Guideline 404 (rabbit), the substance is not irritating. Ethyl silicate is slightly irritating to the skin of rabbits, but does not meet the criteria for classification as irritant. pH: Neutral

Serious eye damage/irritation	:	Causes serious eye irritation. 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 Methyltrimethoxysilane: only mild effects were observed (test on rabbits); the substance is not classified. Methanol. In six rabbits, mild to moderate conjunctivitis and oedema as well as mild iritis were produced after instillation of 0.1 mL undiluted methanol into the eyes. Average scores after 24, 48, and 72 h were approximately two for conjunctival redness and less than one for other effects. Primary irritation subsided although redness of the conjunctivae persisted after 72 hours (OECD, 2004). Triethoxy(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl)silane: based on a study according to OECD Guideline 405, the substance is only slightly irritating Ethyl silicate: vapours of ethyl silicate are irritating to the eyes and to the respiratory tract 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. Methyltrimethoxysilane: two recent studies conducted in guinea pigs showed that the substance doesn't cause skin sensitization. Skin sensitization: Methanol is not considered to be a skin sensitizer in guinea pigs. Respiratory sensitization: Methanol is not considered to be a respiratory sensitiser in guinea pigs. Tetraethyl orthosilicate is not a skin sensitizer (studies in guinea-pigs). Triethoxy(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl)silane is not a skin sensitizer (studies on guinea pigs)
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 Methyltrimethoxysilane: based on the available data, the substance is not classified for genetic toxicity Methanol. In the in-vitro tests and in-vivo tests carried out, no genotoxic potential was detectable Triethoxy(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl)silane is not genotoxic Ethyl silicate: tests in vitro show that the substance does not induce mutations or chromosome aberrations in mammals cells
Carcinogenicity	:	Not classified (Based on available data, the classification criteria are not met) Hydrocarbons, C10-C12, isoalkanes, <2% aromatics are not classified as carcinogens. Methanol. There was no evidence of carcinogenic potential in rats and mice that inhaled the chemical at concentrations up to 1.3 mg/L for 24 and 18 months, respectively. The weight of evidence suggests that methanol is not carcinogenic (OECD, 2004).
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

methanol (67-56-1)	
Additional data	Methanol. Based on the data available, the chemical is not considered to have reproductive or developmental toxicity in humans. No impairment of fertility or reproductive performance was reported in male and female rats exposed to the chemical, unless at very high doses. No epidemiological studies in humans have been located to demonstrate that there is a link between methanol exposure and an increased incidence of fetal malformations or developmental impairment.

Triethoxy(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl)silane (51851-37-7)	
Additional data	The substance did not show adverse effects on reproduction.

tetraethyl silicate; ethyl silicate (78-10-4)	
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

methanol (67-56-1)	
STOT-single exposure	Causes damage to organs.

methanol (67-56-1)	
Additional data	Methanol: exposure to excessive vapour causes eye irritation, drowsiness, headache and fatigue; exposure to high concentrations can cause damages to the optic nerve and central nervous system depression. Ingestion may cause eye damages.

tetraethyl silicate; ethyl silicate (78-10-4)		
STOT-single exposure		May cause respiratory irritation.
Additional data		Ethyl silicate: vapours of ethyl silicate are irritating to the eyes and to the respiratory tract
STOT-repeated exposure	:	May cause damage to organs through prolonged or repeated exposure.

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.

methanol (67-56-1)	
Additional data	Methanol. In studies with rodents, methanol produced only slight toxicity effects. In monkeys, instead, methanol produced neurological effects such us slight peripheral nerve damage, very slight degeneration of the optic nerve, coma and lethality. In these animals, methanol also produced liver and kidney effects. A study published by the National Institute for Occupational Safety and Health (NIOSH) stated that a group of workers exposed to 0.48–4.0 mg/L (99% methanol) had increased symptoms relevant to methanol toxicity such as headache, dizziness, and eye irritation compared with a non-exposed control group at the same workplace.

Triethoxy(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl)silane (51851-37-7)	
NOAEL (oral, rat, 90 days)	50 mg/kg bodyweight OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.
Additional data	After repeated exposure via oral route, the substance may cause damage to organs.

tetraethyl silicate; ethyl silicate (78-10-4)	
NOAEL (oral, rat, 90 days)	10 – 50 mg/kg bodyweight OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)

Aspiration hazard	:	May be fatal if swallowed and enters airways.
Viscosity, kinematic	:	No data available
Potential adverse human health effects and symptoms	:	Causes skin irritation. Causes serious eye irritation. May cause damage to organs through prolonged or repeated exposure. May be fatal if swallowed and enters airways.
Symptoms/effects after skin contact	:	Irritation.
Symptoms/effects after eye contact	:	Eye irritation.
Symptoms/effects after ingestion	:	Risk of lung oedema.
Chronic symptoms	:	May cause damage to organs through prolonged or repeated exposure.

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)

methanol (67-56-1)	
LC50 - Fish [1]	15400 mg/l Lepomis macrochirus (Bluegill)
EC50 - Crustacea [1]	> 10000 mg/l Daphnia magna (Water flea)
NOEC chronic fish	15800 mg/l Oryzias latipes (Ricefish)
NOEC chronic crustacea	208 mg/l Daphnia magna (Water flea)
Additional ecotoxicological information	Toxicity data on soil micro- and macro organisms: EC50 activated sludge = 19800 mg/L IC50 activated sludge >1000 mg/L IC50 Nitrosamonas = 880 mg/L Toxic limit concentration Pseudomonas, Microcystis aeruginosa. = 530 - 6600 mg/L

Triethoxy(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl)silane (51851-37-7)	
LC50 - Fish [1]	> 3.1 mg/l Cyprinus carpio (Common carp)
EC50 - Crustacea [1]	> 9 mg/l Daphnia magna (Water flea)

tetraethyl silicate; ethyl silicate (78-10-4)	
LC50 - Fish [1]	> 245 mg/l Brachydanio rerio (zebra-fish)
EC50 - Crustacea [1]	> 75 mg/l Daphnia magna (Water flea)

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.

methanol (67-56-1)	
Persistence and degradability	Methanol is readily biodegradable. It does not undergo hydrolysis. Volatilization is not a significant removal process from the aquatic compartment. Methanol is degraded in the atmosphere by photochemical, hydroxyl-radical dependent reactions.

Triethoxy(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl)silane (51851-37-7)	
Persistence and degradability	Not biodegradable.

tetraethyl silicate; ethyl silicate (78-10-4)	
Persistence and degradability	readily biodegradable.

12.3. Bioaccumulative potential

Hydrocarbons, C10-C12, isoalkanes, <2% aromatics	
Bioaccumulative potential	not expected.

silicon tetrachloride (10026-04-7)	
Bioaccumulative potential	Low bioaccumulation potential.

methanol (67-56-1)	
Bioaccumulative potential	Methanol does not significantly bioaccumulate in fish. Experimental BCFs of < 10 in fish species, including Cyprinus carpio and Leuciscus idus, have been reported.

tetraethyl silicate; ethyl silicate (78-10-4)	
Bioaccumulative potential	Low bioaccumulation potential.

12.4. Mobility in soil

methanol (67-56-1)	
Mobility in soil	Methanol. The low octanol/water partition coefficient value of -0.7 suggest a high mobility in soil.

tetraethyl silicate; ethyl silicate (78-10-4)	
Mobility in soil	Based on a Kow=1 (estimated), ethyl silicate is expected to have a very high mobility in soil. The substance is also expected to volatilize from dry soil surfaces (based on the vapour pressure)

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	:	Avoid release to the environment. Do not empty into drains.

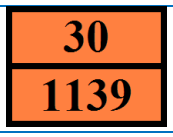
SECTION 14: Transport information

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 (Hydrocarbons, C10-C12, isoalkanes, <2% aromatics)	COATING SOLUTION (Hydrocarbons, C10-C12, isoalkanes, <2% aromatics)	Coating solution (Hydrocarbons, C10-C12, isoalkanes, <2% aromatics)	COATING SOLUTION (Hydrocarbons, C10-C12, isoalkanes, <2% aromatics)
Transport document description			
UN 1139 COATING SOLUTION (Hydrocarbons, C10-C12, isoalkanes, <2% aromatics), 3, III, (D/E), ENVIRONMENTALLY HAZARDOUS	UN 1139 COATING SOLUTION (Hydrocarbons, C10-C12, isoalkanes, <2% aromatics), 3, III, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS	UN 1139 Coating solution (Hydrocarbons, C10-C12, isoalkanes, <2% aromatics), 3, III	UN 1139 COATING SOLUTION (Hydrocarbons, C10-C12, isoalkanes, <2% aromatics), 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: No	Dangerous for the environment: Yes
No supplementary information available			

14.6. Special precautions for user

Overland transport		
Classification code (ADR)	:	F1
Limited quantities (ADR)	:	5l
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

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	
methanol	67-56-1	Present	Active	
Triethoxy(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl)silane	51851-37-7	Present	Active	PMN;S
tetraethyl silicate; ethyl silicate	78-10-4	Present	Active	PMN;S

methanol (67-56-1)	
Subject to reporting requirements of United States SARA Section 313 Listed on EPA Hazardous Air Pollutant (HAPS)	
CERCLA RQ	5000 lb

15.2. International regulations

CANADA

silicon tetrachloride (10026-04-7)
Listed on the Canadian DSL (Domestic Substances List)

methanol (67-56-1)
Listed on the Canadian DSL (Domestic Substances List)

tetraethyl silicate; ethyl silicate (78-10-4)
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)

methanol (67-56-1)
Listed on INSQ (Mexican National Inventory of Chemical Substances)

tetraethyl silicate; ethyl silicate (78-10-4)
Listed on INSQ (Mexican National Inventory of Chemical Substances)

15.3. US State regulations

methanol (67-56-1)					
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)	Maximum allowable dose level (MADL)
No	Yes	No	No		47000 µg/day (inhalation); 23,000 µg/day (oral)

SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Data sources	:	ECHA Database. SDS suppliers. PubChem Database.
Training advice	:	Follow National requirements to ensure protection of human health and the environment.

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.