

1 Identification

GHS Product Identifier

INVESIL

Other means of identification

Transparent Antimicrobials Protected Coating Surface

Recommended use of the chemical and restriction on use

To be used by trained professionals only and as per the manufacturer's recommendation

Supplier's details

Flora Coatings LLC
275 N GateWay Drive
Phoenix, 85034, AZ, USA

Emergency phone number

CHEMTREC: 1-800-424-9300 (USA); +1-703-527-3887 (International)

The information contained in this Safety Data Sheet (SDS) is to the best of our knowledge. Flora Coatings makes no warranty of accuracy and adequacy of this information. Regulatory information is subject to change. It is the user or buyer's responsibility to comply with all local, state, and federal regulations.

2 Hazard(s) identification

Classification of the substance or mixture

GHS-US Classification

FLAMMABLE LIQUIDS:	Category 2	H225
SKIN IRRITATION:	Category 1A	H315
SERIOUS EYE DAMAGE:	Category 1	H318
ACUTE TOXICITY:	Category 4	H302

GHS label elements

Danger



Highly flammable liquid and vapor

Causes skin irritation

Causes serious eye damage

Causes eye irritation

May cause respiratory irritation

May cause drowsiness or dizziness

Causes damage to organs (or state all organs affected, if known) (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)

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

Keep container tightly closed.

Ground and bond container and receiving equipment.

Use non-sparking tools.

Take action to prevent static discharges.

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

Wash hands thoroughly after handling.

Avoid release to the environment.

Wear protective gloves/protective clothing/eye protection/face protection.

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

IF ON SKIN (or hair): Remove/Take off Immediately all contaminated clothing. Rinse SKIN with water/shower.

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

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

If skin irritation occurs: Get medical advice/attention.

IF eye irritation persists: Get medical advice/attention.

Take off contaminated clothing.

In case of fire: Use dry sand, water spray, Alcohol resistant foam, Carbon dioxide, dry chemical to extinguish.

Store in a well-ventilated place. Keep container tightly closed.

Store in a well-ventilated place. Keep cool.

Store locked up.

Dispose of contents/container to licensed waste disposal facility

Other hazards which do not result in classification

- Vapors may form explosive mixture with air
- Static-accumulating flammable liquid

3 Composition/information on ingredients

Description	%	Note
Hexamethyldisiloxane	25 - 90	Methyl Siloxane
3-Aminopropyltrimethoxysilane	1 - 25	Aminosiloxane resin
Trade Secret 1*	15 - 60	Alkoxysilane
Trade Secret 2*	0.1 - 10	Metallic pigments
Trade Secret 3*	0.1 - 5	Reactive Silane
t-Butyl acetate	25 - 75	Co-Solvent
Other	0.1 - 5	Fillers

4 First-aid measures

Description of necessary first-aid measures

General First-aid : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical

advice (show the label where possible). Remove contaminated clothing and shoes.

After inhaled : Remove to fresh air. If breathing is difficult, give oxygen. Get medical attention if you feel in unwell.

After skin contact : Wash with plenty of soap and water while removing all contaminated clothes and shoes. Get medical attention if irritation develops and persists

After eye contact : Immediately flush eyes thoroughl with water for at least 15 minutes. Remove contact lens, if present and easy to do. Continue rinsing and get medical advice.

After ingestion : Do not induce vomiting. Get medical attention.

Most important symptoms/effects, acute and delayed

After inhaled : May cause irritation or asthma like symptoms. Over exposure may cause coughing, headache, or nausea.

After skin contact : Cause skin irritation.

After eye contact : May cause serious eye damage

After ingestion : May be harmful if swallowed

Chronic symptoms : On contact with water this compound liberates methanol which is known to have chronic effect on the central nervous system. Methanol may affect the central nervous system, resulting in persistent or recurring headaches and impaired vision.

Indication of immediate medical attention and special treatment needed, if necessary

No specific treatment information is available. Treatment for ammonia and methanol exposure is recommended.

5 Fire-fighting measures

Suitable extinguishing media

Extinguishing : Water spray (fog), alcohol resistant foam, sand, carbon dioxide, dry chemicals.

Specific hazards arising from the chemical

Fire hazard : Combustible liquid, irritating fumes and organic vapors may develop when material is exposed to elevated temperature or open flame.

Special protective actions for fire-fighters

Specific hazardous during firefighting : As the product contains combustible organic components, fire will produce dense smoke containing hazardous products of combustion. Do not enter fire area without proper protective equipment, including respiratory protection. Avoid all eye and skin contact and do not breathe vapor and mist.

6 Accidental release measures

Personal precautions, protective equipment, and emergency procedures

General measures : Remove ignition sources. Use special care to avoid electric charges. Ventilate the area. Follow safe handling advice and personal protective equipment recommendations.

6.1.1 For non-emergency personnel

Emergency Procedures : Evacuate unnecessary personnel

6.1.2 For emergency procedures

Protective equipment : Equipment cleanup crew with proper protection

Environmental precautions

Do not allow entry to drain, water courses or soil. Prevent spreading by use of suitable barriers. Notify local authorities if liquid enters sewer or public waters.

Methods and materials for containment and cleaning up

For containment : Wearing appropriate personal protective equipment, contain any spills with dikes or inert absorbents to prevent migration and entry into sewers or streams.

For cleaning : Ventilate area of spill or leak, remove all sparking devices or ignition sources. Use inert absorbents to collect the spill and store the spill in appropriate containers for disposal. Use only non sparking tools.

7 Handling and storage

Precautions for safe handling

Safe handling : Avoid any eye or skin contact and do not breath vapor and mist. Provide good ventilation in process area to prevent accumulation of vapors. Containers must be properly grounded before beginning of transfer. Use only non-sparking tools and no smoking. Keep in properly labeled containers tightly closed. Keep in cool and well-ventilated place. Store in accordance with the national regulations. Keep away from heat and flames.

Hygiene measures : Wash contaminated clothing before reuse. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and when leaving work.

Conditions for safe storage, including any incompatibilities

Technical measures : Ground/bond container and receiving equipment.

Storage conditions : Tightly closed container. Avoid shock and friction.

Incompatible materials : Acids, alcohols, moisture, oxidizing agents, peroxides, flammable solids, pyrophoric liquids and solids, self-heating substances and mixtures, explosives, gases.

Storage area : Keep in cool, well ventilated area. Store away from heat.

8 Exposure controls/personal protection

Control parameters

Methanol		
USA ACGIH	ACGIH TWA (ppm)	200 ppm

Ammonia		
USA OSHA	OSHA PEL (TWA) (ppm)	50 ppm

Hexamethyldisiloxane		
USA ACGIH	ACHIH TWA (ppm)	200 ppm

Trade secret 1		
USA ACGIH	ACGIH TWA (mg/m ³)	5 mg/m ³ (as metal)

Trade secret 2		
USA ACGIH	ACGIH TWA (mg/m ³)	0.01 mg/m ³ (as metal)

Trade secret 3		
Contains no substance with occupational exposure limit value		

t-butyl acetate		
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USA ACGIH	ACGIH TWA (mg/m ³)	950 mg/m ³
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Others
Contains no substance with occupational exposure limit value

Appropriate engineering controls

Engineering controls : Provide local exhaust or room ventilation. Minimize workplace exposure concentrations. Use only in an area equipped with explosion proof exhaust. Use with local exhaust ventilation. Use explosion proof ventilation equipment.

Personal protective equipment : Avoid all unnecessary exposure. Emergency eye wash fountains and safety should be available in the immediate vicinity of any potential exposure.

Hand protection : Wear protective gloves. Neoprene or nitrile rubber gloves.

Eye protection : Chemical resistant goggles. Avoid contact lens if possible.

Skin and body protection : Select appropriate protective clothing based on chemical resistance data and an assessment of the local exposure potential. Wear flame resistant antistatic protective clothing. Skin contact must be avoided by using impervious protective clothing (gloves, apron, boots etc.).

Respiratory protection : Use NIOH certified combination organic vapor - amine gas respirator.

Individual protection measures

Do not eat, drink, or smoke. For further information regarding the use of silicones/organic oils in consumer aerosol applications, please refer to the guidance document regarding the use of these type of materials in consumer aerosol applications that has been developed by the silicone industry (www.sehsc.com).

9 Physical and chemical properties

Physical and chemical properties

Physical state	:	Liquid
Appearance	:	Clear pale yellow liquid
Odor	:	Slightly similar to amine, ammonia or silicone oil
pH	:	No data available
Flash point	:	Not available
Evaporation rate	:	No data available
Flammability	:	Not applicable
Self-ignition	:	300 °C
Relative density	:	0.87 at 25 °C
Viscosity	:	5.56 cP at 25 °C
VOC content	:	< 60 % (mostly from VOC exempted solvent)
Solubility	:	Reacts slowly with water
Explosive limits	:	No data available
Oxidizing properties	:	The substance or mixture is not classified as oxidizing
Molecular weight	:	No data available



10 Stability and reactivity

Reactivity

Reactivity : The product may slowly hydrolyze in presence of moisture or water to form alcohols, amine, ammonia and condensed siloxanes.

Chemical stability

Chemical stability : Stable when stores in sealed containers. May gradually transform to condensed siloxane on exposure to moisture.

Possibility of hazardous reactions

Reacts with water and moisture in air, alcohol and amines to release ammonia, methanol and other higher alcohols.

Conditions to avoid

Avoid contacting with oxidizing agents, strong acids, alkaline materials, phosphates, soluble carbonates, heat, sparks, open flame, static charge.

Incompatible materials

Acids, alcohols, amines, phosphates, moisture, oxidizing agents, peroxides, water.

Hazardous decomposition products

Formaldehyde, methanol, higher alcohols, hydrogen, ammonia, organic acid vapors, corrosive gases/vapors, oxide fumes.

11 Toxicological information

Toxicological (health) effects

Not known to contain any ingredients that may cause carcinogenic activity as described in International Agency for Cancer Research, Occupational Safety and Health Administration and National Toxicology Program. No human studies have been conducted on this material.

Information on the likely routes of exposure

Inhalation, skin contact, ingestion, eye contact.

Symptoms related to the physical, chemical, and toxicological characteristics

Not available

Delayed and immediate effects and chronic effects from short- and long-term exposure

Not available

Numerical measures of toxicity (such as acute toxicity estimates)

Not available

Interactive effects

Not available

Where specific chemical data are not available

Not available

Mixtures

Not available

Mixture versus ingredient information

Not available

Other information

The toxicity information may change depending on the quantity of individual ingredients in the composition.

Acute Oral Toxicity	:	Not available
Eye irritation	:	Risk of serious damage to eyes
Skin irritation	:	Not available

12 Ecological information

Toxicity

Toxicity to fish	:	No data available
Chronic aquatic toxicity	:	Toxic to aquatic life with long lasting effects.

Persistence and degradability

Biodegradability	:	Not readily biodegradable
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Bioaccumulative potential

No data available

Mobility in soil

No data available

Other adverse effects

No data available

13 Disposal considerations

Disposal methods

This material is not regulated by the EPA.

Resource Conservation and Recovery Act (RCRA) : Dispose of as a hazardous waste in compliance with local and national regulations. One of the components in this material is a corrosive and flammable hazardous waste under RCRA.

Waste code : D001: Ignitability

Waste from residue : Dispose of in accordance with local regulations. Do not discharge into drains, surface water or ground water. Do not mix this product with aqueous or other protic waste streams.

Contaminated packaging : Empty containers should be taken to an approved handling site for recycling or disposal. Empty containers retain residue and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind or expose such containers to heat, flame, sparks, or other source of ignition. They may explode and cause injury and/or death.

14 Transport information

UN Number

UN 1263

UN Proper Shipping Name

Paint and Paint Related Materials

Transport hazard class(es)

3

Packing group, if applicable

II

Environmental hazards

No

Special precautions for user

Follow safety instructions carefully.

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

Not applicable

15 Regulatory information

Safety, health, and environmental regulations specific for the product in question

U.S. Federal Regulations

TSCA : All components are listed or exempted

EPCRA - Emergency Planning and Community Right-to-Know Act

SARA 302 Reportable Quantity : This material does not contain any components with SARA 302 RQ

SARA 304 Extremely Hazardous Substance : This material does not contain any components with SARA 304 EHS RQ

SARA 311/312 Hazardous : Fire hazard

SARA 313 Emission Reporting : This material does not contain any chemical with known CAS number that exceed the threshold reporting levels established by SARA title III, section 313.

The hardened finished product does not release any "volatile organic compound" (VOC) under ambient conditions.

16 Other information

Other information

As a health-related information, please make this Safety Data Sheet available to all your employees.

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Notice to the reader

The information presented here is the best to our knowledge and based on the research of the components provided by other suppliers. However, neither the supplier or any of its subsidiaries, assume any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with extreme caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist. Flora Coatings LLC in no way be liable for any damage or injury caused from the use of the product described herein. Data provided here are typical and not intended for use as product specifications.