

HSECTION 1: Identification

1.1. Identification

Product form : Mixture
 Product name : HALOv2 Flexible Film Coating
 Product code : HALOv2

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Automotive Coating

1.3. Supplier

| | |
|--|---|
| GTECHNIQ LTD Bridge Business Park Upper Heyford Northampton, NN7 3FA - United Kingdom T +44 (0)1604 962 553 uk@gtechniq.com - www.gtechniq.com | GTECHNIQ NORTH AMERICA 4780 Hammond Industrial Drive Suite 100 Cumming GA 30041 T (855) 483-2401 infona@gtechniq.com - www.gtechniq.com |
|--|---|

1.4. Emergency telephone number

Emergency number : +44 (0)1933 445 260
 For Chemical Emergency Call 24hr / day, 7 days / week.

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

| | |
|--|---|
| Flammable liquids Category 4 | H227 Combustible liquid |
| Acute toxicity (inhalation) Category 4 | H332 Harmful if inhaled |
| Skin corrosion/irritation Category 2 | H315 Causes skin irritation |
| Serious eye damage/eye irritation Category 1 | H318 Causes serious eye damage |
| Skin sensitization, Category 1 | H317 May cause an allergic skin reaction |
| Aspiration hazard Category 1 | H304 May be fatal if swallowed and enters airways |

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) :

Danger

Hazard statements (GHS US) :

H227 - Combustible liquid
 H304 - May be fatal if swallowed and enters airways
 H315 - Causes skin irritation
 H317 - May cause an allergic skin reaction
 H318 - Causes serious eye damage
 H332 - Harmful if inhaled

Precautionary statements (GHS US) :

P102 - Keep out of reach of children.
 P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P261 - Avoid breathing fume, mist, spray, vapors.
 P280 - Wear eye protection, protective clothing, protective gloves.
 P301+P310 - If swallowed: Immediately call a poison center or doctor.
 P302+P352 - IF ON SKIN: Wash with plenty of soap and water.
 P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P310 - Immediately call a doctor, a POISON CENTER.
 P501 - 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 |
|---|-----------------------|---------|--|
| Solvent naphtha (petroleum), heavy aliph. | (CAS-No.) 64742-96-7 | 50 - 80 | Asp. Tox. 1, H304 |
| Distillates (petroleum), hydrotreated light, Kerosine - unspecified | (CAS-No.) 64742-47-8 | 5 - 15 | Asp. Tox. 1, H304 |
| Silane | (CAS-No.) Proprietary | 3 - 10 | Acute Tox. 4 (Inhalation), H332 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Chronic 3, H412 |
| Siloxane | (CAS-No.) Proprietary | 2 - 7 | Acute Tox. 4 (Inhalation), H332 Eye Irrit. 2, H319 |
| Silane | (CAS-No.) Proprietary | 1 - 5 | Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335 |
| Silane | (CAS-No.) Proprietary | 1 - 3 | Flam. Liq. 3, H226 Skin Corr. 1, H314 Eye Dam. 1, H318 |
| Alcohols, C11-15-secondary, ethoxylated | (CAS-No.) 68131-40-8 | 0.5 - 3 | Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Chronic 3, H412 |

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. Get medical advice/attention if you feel unwell. IF exposed or concerned: Get medical advice/attention. |
| First-aid measures after inhalation | : Remove person to fresh air and keep comfortable for breathing. |
| First-aid measures after skin contact | : Wash skin with plenty of water. Take off contaminated clothing. If skin irritation occurs: Get medical advice/attention. If skin irritation or rash occurs: Get medical advice/attention. |
| First-aid measures after eye contact | : Rinse eyes with water as a precaution. 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. Call a poison center/doctor/physician if you feel unwell. |

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

| | |
|-------------------------------------|---|
| Symptoms/effects | : Causes serious eye damage. May be fatal if swallowed and enters airways. |
| Symptoms/effects after inhalation | : Harmful if inhaled. May be irritating to the respiratory system. |
| Symptoms/effects after skin contact | : Causes skin irritation. May cause an allergic skin reaction. |
| Symptoms/effects after eye contact | : Causes serious eye damage. |
| Symptoms/effects after ingestion | : Harmful if swallowed. Ingestion may cause nausea, vomiting and diarrhea. May cause irritation to the digestive tract. |

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically. Call a doctor.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

| | |
|--------------------------------|--|
| Suitable extinguishing media | : Foam. Dry powder. Carbon dioxide. Water spray. Sand. |
| Unsuitable extinguishing media | : Do not use a heavy water stream. |

5.2. Specific hazards arising from the chemical

| | |
|----------------------------|---|
| Fire hazard | : Combustible liquid. |
| Explosion hazard | : Product is not explosive. Prolonged exposure to fire may cause containers to rupture/explode. |
| Reactivity in case of fire | : Not known. |

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

5.3. Special protective equipment and precautions for fire-fighters

Precautionary measures fire : Exercise caution when fighting any chemical fire.
Firefighting instructions : Fight fire with normal precautions from a reasonable distance. Use water spray or fog for cooling exposed containers.
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 : Do not attempt to take action without suitable protective equipment.

6.1.1. For non-emergency personnel

Protective equipment : Wear suitable protective clothing, gloves and eye or face protection. In case of insufficient ventilation, wear suitable respiratory equipment. For further information refer to section 8: "Exposure controls/personal protection".
Emergency procedures : Ventilate spillage area. Evacuate unnecessary personnel. Avoid contact with skin and eyes. Avoid breathing fume, mist, spray, vapors.

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".
Emergency procedures : Ventilate area. Evacuate unnecessary personnel.

6.2. Environmental precautions

Avoid release to the environment. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment : Absorb spillage.
Methods for cleaning up : Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Place in a suitable container for disposal in accordance with the waste regulations (see Section 13).
Other information : This material and its container must be disposed of as hazardous waste.

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection". For disposal of solid materials or residues refer to section 13 : "Disposal considerations".

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Avoid contact with skin and eyes. Wear personal protective equipment. Do not breathe fume, mist, spray, vapors.
Hygiene measures : Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. 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

Storage conditions : Store in a dry place. Store in a closed container. Store locked up. Keep cool.
Incompatible materials : Strong acids. Strong bases. Strong oxidizing agents.
Heat-ignition : No flames, no sparks. Eliminate all sources of ignition.
Storage area : Store in a well-ventilated place.
Packaging materials : Keep only in original container.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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| | |
|---|-------------------------|
| Ultra-Durable Hydrophobic Coating v5 | |
| No additional information available | |
| Solvent naphtha (petroleum), heavy aliph. (64742-96-7) | |
| No additional information available | |
| Distillates (petroleum), hydrotreated light, Kerosine - unspecified (64742-47-8) | |
| USA - ACGIH - Occupational Exposure Limits | |
| ACGIH TWA (mg/m ³) | ≈ 200 mg/m ³ |
| Silane (Proprietary) | |
| No additional information available | |
| Siloxane (Proprietary) | |
| No additional information available | |
| Silane (Proprietary) | |
| No additional information available | |
| Silane (Proprietary) | |
| No additional information available | |
| Alcohols, C11-15-secondary, ethoxylated (68131-40-8) | |
| No additional information available | |

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:

Avoid all unnecessary exposure. PPE compliant to the recommended EN/ISO or equivalent standards should be selected.

Materials for protective clothing:

Wear suitable coveralls to prevent exposure to the skin

Hand protection:

Protective gloves

Eye protection:

Chemical goggles or safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

Wear respiratory protection. Where exposure through inhalation may occur from handling or use, respiratory protection equipment is required. Exposure limits for airborne contaminants must not be exceeded.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

- Physical state : Liquid
Appearance : Clear to slightly milky.
Color : Colorless light yellow
Odor : characteristic
Odor threshold : No data available
pH : 7.7 – 8.5
Melting point : Not applicable
Freezing point : No data available
Boiling point : No data available
Flash point : 68 °C

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| | |
|---|---------------------------|
| Relative evaporation rate (butyl acetate=1) | : No data available |
| Flammability (solid, gas) | : No data available |
| Vapor pressure | : No data available |
| Relative vapor density at 20 °C | : No data available |
| Relative density | : No data available |
| Specific gravity / density | : 0.807 g/cm ³ |
| Solubility | : Immiscible with water. |
| 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 |
| Explosion limits | : 80 vol % |
| Explosive properties | : No data available |
| Oxidizing properties | : No data available |

9.2. Other information

VOC content : ≤ 5 %

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

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

Keep away from heat.

10.5. Incompatible materials

Strong acids. Strong bases. 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 |
| Acute toxicity (dermal) | : Not classified |
| Acute toxicity (inhalation) | : Harmful if inhaled. |

| | |
|---------------------|--------------|
| ATE US (gases) | 4500 ppmV/4h |
| ATE US (vapors) | 11 mg/l/4h |
| ATE US (dust, mist) | 1.5 mg/l/4h |

Distillates (petroleum), hydrotreated light, Kerosine - unspecified (64742-47-8)

| | |
|-----------------------|--|
| LD50 oral rat | > 5000 mg/kg body weight Animal: rat, Guideline: EPA OTS 798.1175 (Acute Oral Toxicity), Guideline: OECD Guideline 420 (Acute Oral Toxicity - Fixed Dose Method) |
| LD50 dermal rabbit | > 2000 mg/kg body weight Animal: rabbit, Guideline: EPA OTS 798.1100 (Acute Dermal Toxicity), Guideline: OECD Guideline 402 (Acute Dermal Toxicity) |
| LC50 Inhalation - Rat | > 5.28 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity), 95% CL: 0,42 - |

Silane (Proprietary)

| | |
|-----------------------|--|
| LD50 dermal rabbit | > 2000 mg/kg body weight Animal: rabbit, Guideline: EPA OPPTS 870.1200 (Acute Dermal Toxicity) |
| LC50 Inhalation - Rat | 1.49 – 2.44 mg/l air Animal: rat, Guideline: EPA OPPTS 870.1300 (Acute inhalation toxicity), Guideline: OECD Guideline 403 (Acute Inhalation Toxicity) |

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| Silane (Proprietary) | |
|-----------------------------|--------------|
| ATE US (gases) | 4500 ppmV/4h |
| ATE US (vapors) | 11 mg/l/4h |
| ATE US (dust, mist) | 1.5 mg/l/4h |

| Siloxane (Proprietary) | |
|-------------------------------|--------------|
| ATE US (gases) | 4500 ppmV/4h |
| ATE US (vapors) | 11 mg/l/4h |
| ATE US (dust, mist) | 1.5 mg/l/4h |

| Alcohols, C11-15-secondary, ethoxylated (68131-40-8) | |
|---|---|
| LD50 oral rat | ≥ 2000 mg/kg body weight Animal: rat, Animal sex: female, Guideline: OECD Guideline 423 (Acute Oral toxicity - Acute Toxic Class Method), Guideline: EU Method B.1 tris (Acute Oral Toxicity - Acute Toxic Class Method), Guideline: EPA OPPTS 870.1100 (Acute Oral Toxicity), Guideline: other:Japanese Ministry ofAgriculture, Forestry and Fisheries, Test Data for Registration of Agricultural Chemicals, Acute oral toxicity (2-1-1), 12 Nohsan No 8147, Agricultural Production Bureau, November 24, 2000. |
| LD50 dermal rat | > 2000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Guideline: EU Method B.3 (Acute Toxicity (Dermal)) |
| ATE US (oral) | 500 mg/kg body weight |

| | |
|-----------------------------------|---|
| Skin corrosion/irritation | : Causes skin irritation. pH: 7.7 – 8.5 |
| Serious eye damage/irritation | : Causes serious eye damage. pH: 7.7 – 8.5 |
| Respiratory or skin sensitization | : May cause an allergic skin reaction. |
| Germ cell mutagenicity | : Not classified |
| Carcinogenicity | : Not classified |
| Reproductive toxicity | : Not classified |

| Distillates (petroleum), hydrotreated light, Kerosine - unspecified (64742-47-8) | |
|---|--|
| NOAEL (animal/male, F0/P) | ≥ 3000 mg/kg body weight Animal: rat, Animal sex: male |

| | |
|----------------------|------------------|
| STOT-single exposure | : Not classified |
|----------------------|------------------|

| Silane (Proprietary) | |
|-----------------------------|-----------------------------------|
| STOT-single exposure | May cause respiratory irritation. |

| | |
|------------------------|------------------|
| STOT-repeated exposure | : Not classified |
|------------------------|------------------|

| Distillates (petroleum), hydrotreated light, Kerosine - unspecified (64742-47-8) | |
|---|--|
| NOAEL (oral,rat,90 days) | 750 mg/kg body weight Animal: rat, Animal sex: female |
| NOAEC (inhalation,rat,vapor,90 days) | ≥ 0.024 mg/l air Animal: rat, Guideline: OECD Guideline 412 (Subacute Inhalation Toxicity: 28-Day Study) |

| Silane (Proprietary) | |
|-----------------------------------|--|
| NOAEL (oral,rat,90 days) | ≥ 500 mg/kg body weight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test) |
| NOAEL (dermal,rat/rabbit,90 days) | ≥ 1545 mg/kg body weight Animal: rat |

| | |
|-------------------------------------|---|
| Aspiration hazard | : May be fatal if swallowed and enters airways. |
| Viscosity, kinematic | : No data available |
| Symptoms/effects | : Causes serious eye damage. May be fatal if swallowed and enters airways. |
| Symptoms/effects after inhalation | : Harmful if inhaled. May be irritating to the respiratory system. |
| Symptoms/effects after skin contact | : Causes skin irritation. May cause an allergic skin reaction. |
| Symptoms/effects after eye contact | : Causes serious eye damage. |
| Symptoms/effects after ingestion | : Harmful if swallowed. Ingestion may cause nausea, vomiting and diarrhea. May cause irritation to the digestive tract. |

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SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Harmful to aquatic life with long lasting effects. Before neutralisation, the product may represent a danger to aquatic organisms.

Distillates (petroleum), hydrotreated light, Kerosine - unspecified (64742-47-8)

| | |
|-------------|----------|
| LC50 fish 1 | > 2 mg/l |
|-------------|----------|

Silane (Proprietary)

| | |
|-------------|---|
| LC50 fish 1 | 597 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio) |
|-------------|---|

| | |
|----------------|---|
| EC50 Daphnia 1 | 81 mg/l Test organisms (species): Daphnia magna |
|----------------|---|

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

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.
Product/Packaging disposal recommendations : Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.
Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Not applicable

Transportation of Dangerous Goods

Not applicable

Transport by sea

Not applicable

Air transport

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

Solvent naphtha (petroleum), heavy aliph. (64742-96-7)

| |
|---|
| Listed on the United States TSCA (Toxic Substances Control Act) inventory |
|---|

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| | |
|---|---|
| Distillates (petroleum), hydrotreated light, Kerosine - unspecified (64742-47-8) | |
| Listed on the United States TSCA (Toxic Substances Control Act) inventory | |
| Silane (Proprietary) | |
| Listed on the United States TSCA (Toxic Substances Control Act) inventory | |
| Silane (Proprietary) | |
| Listed on the United States TSCA (Toxic Substances Control Act) inventory | |
| EPA TSCA Regulatory Flag | XU - XU - indicates a substance exempt from reporting under the Chemical Data Reporting Rule, (40 CFR 711). |
| Silane (Proprietary) | |
| Not listed on the United States TSCA (Toxic Substances Control Act) inventory | |
| Silane (Proprietary) | |
| Not listed on the United States TSCA (Toxic Substances Control Act) inventory | |
| Alcohols, C11-15-secondary, ethoxylated (68131-40-8) | |
| Listed on the United States TSCA (Toxic Substances Control Act) inventory | |
| EPA TSCA Regulatory Flag | XU - XU - indicates a substance exempt from reporting under the Chemical Data Reporting Rule, (40 CFR 711). |

15.2. International regulations

CANADA

| | |
|---|--|
| Solvent naphtha (petroleum), heavy aliph. (64742-96-7) | |
| Listed on the Canadian DSL (Domestic Substances List) | |
| Silane (Proprietary) | |
| Listed on the Canadian DSL (Domestic Substances List) | |
| Silane (Proprietary) | |
| Listed on the Canadian DSL (Domestic Substances List) | |
| Silane (Proprietary) | |
| Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List) | |
| Silane (Proprietary) | |
| Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List) | |
| Alcohols, C11-15-secondary, ethoxylated (68131-40-8) | |
| Listed on the Canadian DSL (Domestic Substances List) | |

EU-Regulations

No additional information available

National regulations

No additional information available

15.3. US State regulations

No additional information available

SECTION 16: Other information

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Full text of H-phrases:

| | |
|------|---|
| H226 | Flammable liquid and vapor |
| H227 | Combustible liquid |
| H302 | Harmful if swallowed |
| H304 | May be fatal if swallowed and enters airways |
| H314 | Causes severe skin burns and eye damage |
| H315 | Causes skin irritation |
| H317 | May cause an allergic skin reaction |
| H318 | Causes serious eye damage |
| H319 | Causes serious eye irritation |
| H332 | Harmful if inhaled |
| H335 | May cause respiratory irritation |
| H412 | Harmful to aquatic life with long lasting effects |

SDS US (GHS HazCom 2012)

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.