

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product name : HALO Flexible Film Coating US
Product code : HAL

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
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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
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

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.
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.

2.3. Other hazards which do not result in classification

No additional information available

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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
Heavy aliphatic hydrocarbons	(CAS-No.) 64742-47-8	50 - 85	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 - 8	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
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
silane	(CAS-No.) proprietary	0.5 - 2	Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335
silane	(CAS-No.) proprietary	0.5 - 2	Flam. Liq. 3, H226 Skin Corr. 1, H314 Eye Dam. 1, H318

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	: May be fatal if inhaled. May cause respiratory irritation.
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	: May be harmful if swallowed. 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. High vapor pressure may cause containers to burst at elevated temperatures.
Reactivity in case of fire	: Not known.
Hazardous decomposition products in case of fire	: Toxic fumes may be released.

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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

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. 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.

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. Avoid breathing fume, vapors, mist, spray.
- 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 locked up. Store in a well-ventilated place. Keep cool.
- Incompatible materials : Strong acids. Strong bases. Strong oxidizing agents.
- 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

HALO Flexible Film Coating US	
No additional information available	
Heavy aliphatic hydrocarbons (64742-47-8)	
USA - ACGIH - Occupational Exposure Limits	
ACGIH TWA (mg/m ³)	≈ 200 mg/m ³
Distillates (petroleum), hydrotreated light, Kerosine - unspecified (64742-47-8)	
USA - ACGIH - Occupational Exposure Limits	
ACGIH TWA (mg/m ³)	≈ 200 mg/m ³

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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.

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
Color	: Colorless light yellow
Odor	: characteristic
Odor threshold	: No data available
pH	: 7.2 – 7.7
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: 66 °C
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Not applicable.
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: No data available
Specific gravity / density	: 0.802 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

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Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available

9.2. Other information

No additional information available

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

None under recommended storage and handling conditions (see section 7).

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)	: Not classified

Heavy aliphatic hydrocarbons (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 (mg/l)	> 5.28 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity), 95% CL: 0,42 -

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 (mg/l)	> 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 (mg/l)	1.49 – 2.44 mg/l air Animal: rat, Guideline: EPA OPPTS 870.1300 (Acute inhalation toxicity), Guideline: OECD Guideline 403 (Acute Inhalation Toxicity)
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

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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 of Agriculture, 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: 7.2 – 7.7
Serious eye damage/irritation	: Causes serious eye damage. pH: 7.2 – 7.7
Respiratory or skin sensitization	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified

Heavy aliphatic hydrocarbons (64742-47-8)	
NOAEL (animal/male, F0/P)	≥ 3000 mg/kg body weight Animal: rat, Animal sex: male

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

Heavy aliphatic hydrocarbons (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)

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	: May be fatal if inhaled. May cause respiratory irritation.
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	: May be harmful if swallowed. 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.

Heavy aliphatic hydrocarbons (64742-47-8)	
LC50 fish 1	> 2 mg/l
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

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SECTION 15: Regulatory information

15.1. US Federal regulations

Heavy aliphatic hydrocarbons (64742-47-8)

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

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

siloxane (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

silane (proprietary)

Listed on the Canadian DSL (Domestic Substances List)

siloxane (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.