

Material Safety Data Sheet

Version Control: 1

Date: 06-Jan-2025

This Safety Data Sheet has been prepared in accordance with the GHS guidelines & India Hazardous substances (Classification, Labeling & Packaging) Draft Rules 2011.

Section 1—Identification:

Product identifier: Hayago Graphene Titanium Ceramic Coating (5 ml)

ASIN: B0DZ2J4WTP

SKU: HAYAGO0016

Manufacturer or distributor name: AutoPropel Technologies LLP

Address: Kokarya Business Synergy Centre, No. 51, Old Site No. 1, Fifth Floor, 5th Main, 5th Block, Jayanagar, Bengaluru Karnataka 560011, India. Phone: 9341212978, email: Info@autopropel.in

Recommended use: Used as a paint protection coating for Car and Motor cycle and all painted surfaces.

Restrictions on use: External use only

Section 2—Hazard(s) identification:

Under MSIHC Rules, information is noted below on flammability, acute toxicity and explosivity relevant to this product. In line with international standards, information on other hazard classes and associated precautionary statements relevant to this product are included as well.

2.1 Classification of the substance or mixture

Flammable: Category 1 – On contact with fire can catch fire

Serious Eye Damage/Irritation: Category 2A

Skin Sensitizer: Category 1.

2.2 Label elements

Signal Word DANGER!

Symbols

Flame | Exclamation mark



HAZARD STATEMENTS:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H336	May cause drowsiness or dizziness.
H370	Causes damage to organs: Cardiovascular system
H401	Toxic to aquatic life.
H226	Flammable liquid and vapor.
H335	May cause respiratory irritation.

PRECAUTIONARY STATEMENTS

Prevention:

P210A	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.
P211	Do not spray on an open flame or other ignition source.
P251	Do not pierce or burn, even after use.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P280E	Wear protective gloves, Eye protection and Mask.

Response:

P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.
P308	IF exposed or concerned:
P308 + P311	IF exposed or concerned: Call a POISON CENTER or doctor/physician.

Storage:

P410 + P412	Protect from sunlight. Do not expose to temperatures exceeding 0°C/ 65°C
P405	Store locked up.

Disposal:

P501	Dispose of contents/container in accordance with applicable local/regional/national/international regulations.
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2.3 Other hazards

None known.

Section 3—Composition/Information on ingredients:

This material is a mixture

Ingredient	CAS Number	% by Wt or V/V
Silane Coupling Agent – Glycidoxypyltrimethoxy Silane LT560	2530-83-8	15- 20 V/V %
Graphene Nano powder	1034343-98-0	0.25-0.5 W/V%
Tetraethyl Orthosilicate -40 – TEOS-40	78-10-4	10-15 V/V %
MPMS – Methyltrimethoxysilane - CAS No.:1185-55-3	1185-55-3	2-3 V/V%
PHDS – Poly Methyl Hydrogen Silicone	63148-57-2	5-7 V/V%
Heptadecafluorodecyl trimethoxysilane (CFS 165 – China)	83048-65-1	3-5 V/V%
Perfluorodecyl trimethoxysilane	101947-16-4	3-5 V/V%
Perfluorooctyl trimethoxysilane	85857-16-5	3-5 V/V%
HMDS - Hexamethyldisilazane	999-97-3	5-8 V/V%
PDMS - Poly(dimethylsiloxane), hydroxy terminated	70131-67-8	5-10 V/V%
Octamethylcyclotetrasiloxane	556-67-2	5-6 V/V%
Decamethylcyclopentasiloxane	541-02-6	5-6 V/V%
Silica gel Inorganic Sorbent	112926-00-8	20% W/V
TMS - (Tms) Trimethylsiloxysilicate Silicone	56275-01-5	10% W/V
Bisphenol A epoxy resin (E42)	25068-38-6	5% W/V
Ethanol	64-17-5	19-20 V/V%
Xylene	1330-20-7	19-20 V/V%

Section 4—First-aid measures:

4.1. Description of first aid measures

Inhalation

Remove person to fresh air. If you feel unwell, get medical attention.

Skin contact

Immediately wash with soap and water. Remove contaminated clothing and wash before reuse. If signs/symptoms develop, get medical attention.

Eye contact

Immediately flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. Get medical attention.

If swallowed

Rinse mouth. If you feel unwell, get medical attention.

4.2. Most important symptoms and effects, both acute and delayed

See Section 11.1 Information on toxicological effects

4.3. Indication of any immediate medical attention and special treatment required

Exposure may increase myocardial irritability. Do not administer sympathomimetic drugs unless absolutely necessary.

Section 5—Fire-fighting measures:

5.1. Suitable Extinguishing media

Use a firefighting agent suitable for the surrounding fire.

5.2. Special hazards arising from the substance or mixture

Closed containers exposed to heat from fire may build pressure and explode.

5.3. Special protective actions for fire-fighters

Water may not effectively extinguish fire; however, it should be used to keep fire-exposed containers and surfaces cool and prevent explosive rupture.

Section 6—Accidental release measures:

6.1. Personal precautions, protective equipment and emergency procedures Evacuate area. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. Ventilate the area with fresh air. Warning! A motor could be an ignition source and could cause flammable gases or vapors in the spill area to burn or explode. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

6.2. Environmental precautions

For larger spills, cover drains and build dykes to prevent entry into sewer systems or bodies of water.

6.3. Methods and material for containment and cleaning up

If possible, seal leaking container. Place leaking containers in a well-ventilated area, preferably an operating exhaust hood, or if necessary, outdoors on an impermeable surface until appropriate packaging for the leaking container or its contents is available. Contain spill. Cover spill area with a fire-extinguishing foam designed for use on solvents, such as alcohols and acetone that can dissolve in water. An AR-AFFF type foam is recommended. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible using non-sparking tools. Place in a metal container approved for transportation by appropriate authorities. Clean up residue with water. Seal the container. Dispose of collected material as soon as possible in accordance with applicable local/regional/national/international regulations.

Section 7—Handling and storage:

7.1. Precautions for safe handling

Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Avoid breathing dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Avoid contact with oxidizing agents (e.g. chlorine, chromic acid etc.)

7.2. Conditions for safe storage including any incompatibilities

Protect from sunlight. Do not expose to temperatures exceeding 50C/122F. Store away from heat. Store away from acids. Store away from oxidizing agents. Once opened to be used within 2 Months – Needs to be stored in cool and dark place, don't expose to sunlight directly.

Section 8—Exposure controls/Personal protection:

8.1 Control parameters

Occupational exposure limits

If a component is disclosed in section 3 but does not appear in the table below, an occupational exposure limit is not available for the component.

Ingredient	CAS Nbr	Agency	Limit type	Additional comments
Ethanol	64-17-5	ACGIH	Limit value not established:	1000PPM - OSHA
Xylene	1330-20-7	ACGIH	Short term 15 Mins, Long Term 8 Hours	100PPM - OSHA

ACGIH: American Conference of Governmental Industrial Hygienists AIHA: American Industrial Hygiene Association

CMRG: Chemical Manufacturer's Recommended Guidelines TWA: Time-Weighted-Average

STEL: Short Term Exposure Limit CEIL: Ceiling

8.2. Exposure controls

8.3. Engineering controls

Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust /fume /gas /mist /vapors /spray. If ventilation is not adequate, use respiratory protection equipment.

8.3.1. Personal Protective equipment (PPE)

Eye/face Protection

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended: Indirect vented goggles.

Skin/hand protection

Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible gloves/protective clothing.

Note: Nitrile gloves may be worn over polymer laminate gloves to improve dexterity.

Gloves made from the following material(s) are recommended: Polymer laminate

If this product is used in a manner that presents a higher potential for exposure (e.g. spraying, high splash potential etc.), then use of protective coveralls may be necessary. Select and use body protection to prevent contact based on the results of an exposure assessment. The

following protective clothing material(s) are recommended: Apron - polymer laminate

Respiratory protection

An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:

Half facepiece or full facepiece air-purifying respirator suitable for organic vapors and particulates for questions about suitability for a specific application, consult with your respirator manufacturer.

Section 9—Physical and chemical properties:

Properties Physical state	Liquid
Specific Physical Form	Aerosol
Appearance/ Odor	Strong odor; Clear Liquid
Odor threshold	No data available
pH	6 – 9
Melting point/Freezing point	Not applicable
Boiling point/Initial boiling point/Boiling range	Not applicable.
Flash point	Not applicable.
Evaporation rate	Not applicable.
Flammability (solid, gas)	Not applicable.
Flammable Limits (LEL)	Not applicable.
Flammable Limits (UEL)	Not applicable.
Vapor pressure	Not applicable.
Vapor density	Not applicable.
Density	Not applicable.
Relative density (liquid)	0.9 - 1.01 [@ 25 °C]
Water solubility	No
Solubility- non-water	Soluble in solvents like IPA
Partition coefficient: n-octanol/water	No data available.
Autoignition temperature	No data available.
Decomposition temperature	No data available.
Viscosity	Not applicable.

Section 10—Stability and reactivity:

10.1 Reactivity

This material may be reactive with certain agents under certain conditions - see the remaining headings in this section

10.2 Chemical stability: Stable.

10.3 Possibility of hazardous reactions: Hazardous polymerization will not occur.

10.4 Conditions to avoid: Heat, Sparks and/or flames.

10.5 Incompatible materials: Strong oxidizing agents.

10.6 Hazardous decomposition products

Substance

Methane,
Ketones.

Condition

Not specified.
Not specified.

Section 11—Toxicological information:

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. In addition, toxicological data on ingredients may not be reflected in the material classification and/or the signs and symptoms of exposure, because an ingredient may be present below the threshold for labelling, an ingredient may not be available for exposure, or the data may not be relevant to the material as a whole.

11.1 Information on Toxicological effects Signs and Symptoms of Exposure

Based on test data and/or information on the components, this material may produce the following health effects:

Inhalation

Simple asphyxiation: Signs/symptoms may include increased heart rate, rapid respirations, drowsiness, headache, incoordination, altered judgement, nausea, vomiting, lethargy, seizures, coma, and may be fatal. Respiratory tract irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain. May cause additional health effects (see below).

Skin contact

Skin Irritation: Signs/symptoms may include localized redness, swelling, itching, dryness, cracking, blistering, and pain. Allergic skin reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

Eye contact

Severe eye irritation: Signs/symptoms may include significant redness, swelling, pain, tearing, cloudy appearance of the cornea, and impaired vision.

Ingestion

May cause additional health effects (see below).

Additional Health Effects:

Single exposure may cause target organ effects:

Central nervous system (CNS) depression: Signs/symptoms may include headache, dizziness, drowsiness, incoordination, nausea, slowed reaction time, slurred speech, giddiness, and unconsciousness. Cardiac sensitisation: Signs/symptoms may include irregular heartbeat (arrhythmia), faintness, chest pain, and may be fatal.

Toxicological Data

If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

Aspiration Hazard

For the component/components, either no data are currently available or the data are not sufficient for classification.

Please contact the address or phone number listed on the first page of the SDS for additional toxicological information on this material and/or its components.

Section 12—Ecological information:

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. Additional information leading to material classification in Section 2 is available upon request. In addition, environmental fate and effects data on ingredients may not be reflected in this section because an ingredient is present below the threshold for labelling, an ingredient is not expected to be available for exposure, or the data is considered not relevant to the material as a whole.

12.1. Toxicity

Acute aquatic hazard:

GHS Acute 2: Toxic to aquatic life.

Chronic aquatic hazard:

GHS Chronic 3: Harmful to aquatic life with long lasting effects. No product test data available.

12.2 Persistence and degradability

No data available

12.3. Bio accumulative potential

No data available

12.4. Mobility in soil

Please contact manufacturer for more details

12.5 Other Adverse effects

No information available.

Section 13—Disposal considerations

13.1. Disposal methods

Dispose of contents/ container in accordance with the local/regional/national/international regulations.

Incinerate in a permitted waste incineration facility. Facility must be capable of handling

aerosol cans. As a disposal alternative, utilize an acceptable permitted waste disposal facility. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.

Section 14—Transportation information

Air Transport (IATA) Regulations UN No UN1950
Proper Shipping Name GLASS CONTAINER, FLAMMABLE
Hazard Class/Division 3
Subsidiary Risk Not applicable
Packing Group: Not applicable

Marine Transport (IMDG) UN No UN1950
Proper Shipping Name GLASS CONTAINER, FLAMMABLE
Hazard Class/Division 3
Subsidiary Risk Not applicable
Packing Group: Not applicable
Environmental Hazards: Not applicable

Section 15—Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Applicable Environmental, Health and Safety Regulations

The Manufacture, Storage and Import of Hazardous Chemical Rules, 1989 Hazardous Waste (Management, Handling & Transboundary) Rules, 2008 Hazardous Chemicals (Classification, Packaging and Labelling Draft Rules), 2011 Central Motor Vehicle Rules, 1989

The following ingredients are listed as hazardous on Part II of Schedule I of the India Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) rules
 Butane, all isomers

The following ingredients are classified as hazardous based on the criteria listed under Part I of Schedule I of the India Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) rules:

The Product is classified as Hazardous- Extremely Flammable.

Section 16—Other information—

NFPA Hazard Classification

Health: 2, Flammability: 4, Instability: 0, Special Hazards: None, Aerosol Storage Code: 2

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

DISCLAIMER:

The information on this Safety Data Sheet is based on our experience and is correct to the best of our knowledge at the date of publication, but we do not accept any liability for any loss, damage or injury resulting from its use (except as required by law). The information may not be valid for any use not referred to in this Data Sheet or use of the product in combination with other materials. For these reasons, it is important that customers carry out their own test to satisfy themselves as to the suitability of the product for their own intended applications.