Safety Data Sheet (SDS)

<u>SUPPLIER / DISTRIBUTOR</u> Hi Tech Industries Farmington, MI USA <u>PRODUCT IDENTIFIER</u>

MS-050 Ceramakote Ceramic Coating

GHS CLASSIFICATION

Specific Target Organ Toxicity (central nervous system): Category 3. Aspiration Hazard: Category 1 Specific target organ toxicity - repeated exposure: Category 1 Acute aquatic toxicity: Category 3

Chronic aquatic toxicity:

Category 3 GHS LABEL

ELEMENTS SIGNAL WORD: Danger

HAZARD PICTOGRAMS

HAZARD STATEMENTS

May be fatal if swallowed and enters airways. Causes damage to organs through prolonged or repeated exposure. Harmful to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENTS:

Keep out of reach of children. Do not breathe dust/ fume/ gas/ mist/ vapors/ spray. Wash skin thoroughly after handling. Do not eat, drink or smoke when using this product. Avoid release to the environment. Get medical advice/ attention if you feel unwell. Dispose of contents/ container to an approved waste disposal plant.

PREVENTION Wear protective gloves/ eye protection/ face protection.

RESPONSE

In case of fire: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide for extinction. IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician. Do NOT induce vomiting.

STORAGE

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

DISPOSAL

Dispose of contents and container in accordance with all local, regional, national and international regulations.

OTHER HAZARDS

None known.

The identity of individual components of this mixture is proprietary information and is regarded to be a trade secret and is withheld in accordance with paragraph (i) of §1910.1200.

Ingredient	% by Wt.
Silicon Dioxide	20-40%
Solvent	50-60%

GENERAL ADVICE: Move out of dangerous area. Consult a physician. Show this safety data sheet to the doctor in attendance.

EYE CONTACT: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

INHALATION: Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration. In case of shortness of breath, give oxygen. Call a physician immediately.

SKIN CONTACT: Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. When symptoms persist or in all cases of doubt seek medical advice. Wash contaminated clothing before re-use.

INGESTION: If swallowed, call a poison control centre or doctor immediately. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person.

MOST IMPORTANT SYMPTOMS/EFFECTS, ACUTE AND DELAYED See Section 11 Information on toxicological effects.

SPECIFIC TREATMENTS: No data.

SPECIFIC HAZARDS ARISING FROM THE CHEMICAL: None inherent in this product.

SUITABLE EXTINGUISHING MEDIA: Use water spray, alcohol-resistant foam, dry chemical or

carbon dioxide. UNSUITABLE EXTINGUISHING MEDIA: No data. HAZARDOUS THERMAL DECOMPOSITION PRODUCTS: silicon oxides

SPECIAL FIRE FIGHTING PROCEDURES No unusual fire or explosion hazards are anticipated.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS: Wear self-contained breathing apparatus and protective suit.

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

Evacuate area. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice.

METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP

Contain spill. 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. Place in a closed container approved for transportation by appropriate authorities. Clean up residue with an appropriate solvent selected by a qualified and authorized person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and SDS. Seal the container. Dispose of collected material as soon as possible.

ENVIRONMENTAL PRECAUTIONS:

Avoid release to the environment.

PRECAUTIONS FOR SAFE HANDLING

Keep out of reach of children. 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.

CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

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

CONTROL PARAMETERS

Ingredients	Exposure Limits
Silicon dioxide	TWA 20 Million particles per cubic foot USA. Occupational Exposure Limits (OSHA) TWA 80mg/ m3 / %SiO2 USA. Occupational Exposure Limits
	(OSHA) TWA 6 mg/m3 USA. NIOSH Recommended Exposure Limits
Petroleum Distillates	Chemical Manufacturer Required Guidelines, TWA:165 ppm

ENGINEERING MEASURES

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.

INDIVIDUAL PROTECTION MEASURES

EYE/FACE PROTECTION

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

SKIN/HAND PROTECTION

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

RESPIRATORY PROTECTION

In case of inadequate ventilation wear 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 nuisance exposures use type OV/AG (US) or type ABEK (EU EN 14387) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). For questions about suitability for a specific application, consult with your respirator manufacturer.

BODY PROTECTION

Impervious clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

CONTROL OF ENVIRONMENTAL EXPOSURE

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

HYGIENE MEASURES

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period.

PHYSICAL STATE Liquid

FORM Liquid

COLOR colorless

ODOR hydrocarbon-like

ODOR THRESHOLD No data available.

PH No data available.

FREEZING POINT No data available

BOILING POINT No data available. FLASH POINT > 63 °C (145 °F)

EVAPORATION RATE No data available.

FLAMMABILITY (SOLID, GAS) No data available.

FLAMMABILITY LIMIT - UPPER (%) No data available.

FLAMMABILITY LIMIT - LOWER (%) No data available.

EXPLOSIVE LIMIT - UPPER (%) No data available.

EXPLOSIVE LIMIT - LOWER (%) No data available.

VAPOR PRESSURE No data available. VAPOR DENSITY No data available.

RELATIVE DENSITY

No data available.

SOLUBILITY IN WATER No data available.

SOLUBILITY (OTHER) No data available.

PARTITION COEFFICIENT (N- OCTANOL/WATER) No data available.

AUTO-IGNITION TEMPERATURE > 233 °C, 453 °F; ASTM E 659;

DECOMPOSITION TEMPERATURE No data available.

VISCOSITY No data available

REACTIVITY Not expected to be Explosive, Self-Reactive, Self-Heating, or an Organic Peroxide under US GHS Definition(s).

CHEMICAL STABILITY Material is stable under normal conditions. POSSIBILITY OF HAZARDOUS REACTIONS Under normal conditions of storage and use, hazardous reactions will not occur.

CONDITIONS TO AVOID Keep away from heat and sources of ignition.

INCOMPATIBLE MATERIALS Strong bases, Strong oxidizing agents, Amines, Strong acids, Acid anhydrides, Peroxides, Isocyanates, Phenol, Aniline.

HAZARDOUS DECOMPOSITION PRODUCTS Under normal conditions of storage and use, hazardous decomposition products should not be produced.

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 labeling, an ingredient may not be available for exposure, or the data may not be relevant to the material as a whole.

SIGNS AND SYMPTOMS OF OVEREXPOSURE:

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

INHALATION: Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain. May cause target organ effects after inhalation.

SKIN CONTACT: May be harmful in contact with skin. Mild Skin Irritation: Signs/symptoms may include localized redness, swelling, itching, and dryness.

EYE CONTACT: Sprayed material may cause eye irritation. Signs/symptoms may include redness, swelling,

pain, tearing, and blurred or hazy vision.

INGESTION: Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea. May cause target organ effects after ingestion.

Target Organ Effects:

SINGLE EXPOSURE MAY CAUSE: Central Nervous System (CNS) Depression: Signs/symptoms may include headache, dizziness, drowsiness, incoordination, nausea, slowed reaction time, slurred speech, giddiness, and unconsciousness.

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.

Acute Toxicity

Name	Route	Species	Value
Petroleum Distillates	Dermal	Rabbit	LD50 > 3,160 mg/kg
Petroleum Distillates	Inhalation, Dust/Mist 4 hrs.	Rat	LC50 > 5000 mg/l
Petroleum Distillates	Ingestion	Rat	LD50 > 5,000 mg/kg

Skin Corrosion / Irritation

	Petroleum Distillates	Rabbit	Mild Irritant
--	-----------------------	--------	---------------

Serious Eye Damage/Irritation

Name	Species	Value
Petroleum Distillates	Rabbit	Mild Irritant

Skin Sensitization

Name	Species	Value
Petroleum Distillates	Guinea Pig	Not sensitizing

Respiratory Sensitization

No data available.

Germ Cell Mutagenicity

Name	Route	Value
Petroleum Distillates	In Vitro	Not mutagenic

Carcinogenicity

Name	Route	Species	Value
Petroleum Distillates	Dermal	Mouse	Some positive data exist, but the data are not sufficient for classification

Reproductive Toxicity

No data available.

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ	Value	Species	Test Result	Exposure Duration
Petroleum Distillates	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	
Petroleum Distillates	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		NOAEL Not available	

Specific Target Organ Toxicity - repeated exposure

No data available.

PREPARATION / REVISION DATE 09/12/2018

OTHER INFORMATION

This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

DISCLAIMER

As the conditions or methods of use are beyond our control, we do not assume any responsibility and expressly disclaim any liability for any use of this product. Information contained herein is believed to be true and accurate but all state- ments or suggestions are made without warranty, expressed or implied, regarding accuracy of the information, the hazards connected with the use of the material or the results to be obtained from the use thereof. Compliance with all applicable federal, state, and local regulations remains the responsibility of the user.