



H Series Coatings (Part A)

SDS Number:

Revision Date: 1/10/2018

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1 PRODUCT AND COMPANY IDENTIFICATION

Manufacturer

NIC Industries, Inc
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Product Name: H Series Coatings (Part A)
Revision Date: 1/10/2018
Version: 3.6
Common Name: Heat Curable Polymer-Ceramic Composite Coating
CAS Number: 98-56-6
Chemical Family: HS Code: 3208900000

EMERGENCY CONTACT: CALL PERS: 1-800-633-8253 (USA & Canada) or 001-1-801-629-0667 (International).

The information contained in this Safety Data Sheet (SDS) is, to the best of our knowledge, true and accurate and presented in good faith. NIC Industries, Inc. makes no warranties, expressed or implied, as to the accuracy and adequacy of this information. Because many factors may affect processing or application/use of this product, this data is offered solely for the user's consideration, investigation and verification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or process. Regulatory requirements are subject to change and may differ from one location to another. It is the responsibility of the buyer/user to ensure its activities comply with all local, state and federal regulations.

2 HAZARDS IDENTIFICATION

Route of Entry: Eyes, Ingestion, Inhalation, Skin

Target Organs: Central Nervous System, Kidneys, Liver.

Inhalation: Not expected to be a relevant route of exposure, however under conditions where exposure to vapors or mists is possible, could cause respiratory tract infection.

Skin Contact: May be mildly irritating to the skin. May cause skin sensitization, rashes, exzema, and redness. Prolonged or repeated exposure may aggravate existing conditions.

Eye Contact: May be irritating to the eyes.

Ingestion: Not likely to be a relevant route of exposure, however, ingestion may cause damage to the lining of the gastrointestinal tract.

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NFPA:
HMIS III:

Health = 2, Fire = 2, Reactivity = 1
H*2/F2/PH0

NFPA		
FIRE HAZARD		
HEALTH	2	1
SPECIFIC HAZARD		
REACTIVITY		

HMIS III	
HEALTH	2
FLAMMABILITY	2
PHYSICAL HAZARDS	0
PERSONAL PROTECTION H Splash Goggles, Gloves, Apron, Vapor Respirator	

GHS Signal Word:
WARNING

GHS Hazard Pictograms:



GHS Classifications:

- Health, Acute toxicity, 5 Oral
- Health, Acute toxicity, 5 Inhalation
- Health, Respiratory or skin sensitization, 1 Skin
- Health, Skin corrosion/irritation, 3
- Health, Serious Eye Damage/Eye Irritation, 2 B
- Health, Specific target organ toxicity - Repeated exposure, 2

GHS Phrases:

- H303 - May be harmful if swallowed
- H333 - May be harmful if inhaled
- H317 - May cause an allergic skin reaction
- H316 - Causes mild skin irritation
- H320 - Causes eye irritation
- H373 - May cause damage to organs through prolonged or repeated exposure

GHS Precautionary Statements:

- P101 - If medical advice is needed, have product container or label at hand.
- P102 - Keep out of reach of children.
- P201 - Obtain special instructions before use.
- P210 - Keep away from heat/sparks/open flames/hot surfaces. No smoking
- P233 - Keep container tightly closed.
- P242 - Use only non-sparking tools.
- P243 - Take precautionary measures against static discharge.
- P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.
- P262 - Do not get in eyes, on skin, or on clothing.
- P271 - Use only outdoors or in a well-ventilated area.
- P280 - Wear protective gloves/protective clothing/eye protection/face protection.
- P301+330+331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
- P302+350 - IF ON SKIN: Gently wash with soap and water.
- P304+340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.



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- P335 - Brush off loose particles from skin.
- P360 - Rinse immediately contaminated clothing and skin with plenty of water before removing clothes.
- P402 - Store in a dry place.
- P403+233 - Store in a well ventilated place. Keep container tightly closed.
- P211 - Do not spray on an open flame or other ignition source.
- P404 - Store in a closed container.

Store between 50F-100F

3 COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients:

Cas #	Percentage	Chemical Name
98-56-6	70-85%	p-chlorobenzotrifluoride
*Trade Secret	5-10%	Heat-curable, high-temperature resin(s)
*Trade Secret	10-20%	Ceramic and/or metallic pigments and colorants
*Trade Secret	0-1%	Silicone-based rheology modifiers
*Trade Secret	0-2%	Organic Dispersant and/or wetting Agent

*In accordance with OSHA Hazard Communication Standard 29 CFR 1910.1200(j), the specific chemical identity and/or exact percentage of composition has been withheld as a trade secret.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as significantly hazardous to health or the environment and hence require reporting in this section.

4 FIRST AID MEASURES

- Inhalation:** Remove to fresh air. If breathing is difficult, have trained person administer oxygen.
- Skin Contact:** Wash thoroughly with soap and water for at least 15 minutes while removing contaminated clothing and shoes. Wash all clothing before re-use. If irritation persists, seek medical attention.
- Eye Contact:** Immediately flush with water for at least 15 minutes. If irritation persists, seek medical attention.
- Ingestion:** Do not induce vomiting. Seek medical attention immediately.



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5 FIRE FIGHTING MEASURES

Flammability: Will burn under fire conditions but will not sustain combustion.
Flash Point: CLOSED CUP: 42.8 C (109.04 F)
Flash Point Method: Tagliabue

Extinguishing Media:
Carbon dioxide, dry chemical powder, or appropriate foam.

Fire Fighting Procedures:
Evacuate all unnecessary personnel. Shut down motors, pumps, electrical service, and eliminate sources of ignition. Use water spray to cool containers and avoid pressure build-up. Wear self-contained breathing apparatus and full protective clothing.

Fire and Explosion Hazard:
Combustible Liquid. Over-heated containers may rupture.

Sensitivity of Static Charge:
Electrostatic charge may build up during handling. Grounding of equipment is recommended.

6 ACCIDENTAL RELEASE MEASURES

Personal Precautions:
Evacuate all unnecessary personnel and eliminate all sources of ignition.

Environmental Precautions:
Contain liquids and prevent discharge into streams and sewers, control or stop the loss of volatile material to the atmosphere. Do not apply water to the spill. Spills should be reported, if required, to the appropriate local, state, or federal agencies.

Small Spills:
Cover with an inorganic absorbent, such as vermiculite, perlite, ground clay, or sand; sweep up, and dispose of appropriately. Clean contaminated area with soap and water.

Large Spills:
Dike to contain and pump into drums for disposal. Add vermiculite absorbent to remaining material (as above).



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7 HANDLING AND STORAGE

Handling Precautions:

Avoid breathing fumes.
 Avoid bodily contact with material.
 Wear appropriate personal protective equipment (PPE).
 Wash thoroughly after handling.
 Keep away from heat, sparks, pilot lights, welding operations, and open flames.
 Flammable vapors may form explosive mixtures in air.
 Do not eat, drink, or smoke in areas where this material is used.
 Do not get in eyes, clothing, or on skin.
 Do not eat, drink, or smoke in areas where this material is used.
 This material is not rated as flammable; however, caution is recommended as solvents contained in certain H-Series formulations are considered flammable.
 Ground all equipment and use non-sparking tools.

Isolate, vent, drain, wash and purge systems or equipment before maintenance or repair.
 Clean spills immediately.

Avoid vapor formations and use with adequate ventilation. Vapors are heavier than air and will tend to collect in low areas. Avoid use in confined spaces. Areas of poor ventilation could contain concentrations high enough to cause unconsciousness and death. Use approved air respirator following manufacturer's recommendations where vapors may be generated.

Storage Requirements:

Keep container properly closed and properly labeled.
 Store in a cool dry place away from direct sunlight, designated for combustible liquid storage (Do not store in temperatures below 50F or above 77F.). Avoid freezing.
 Keep away from heat, sparks, and open flame.
 Vent periodically, if needed, to release head pressure.
 Avoid shock and friction.
 Do not allow cross-contamination, and keep away from incompatible materials.
 Do not store near food or drinks.
 Avoid excessive aging.
 Store in accordance with local regulations.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls:

General room ventilation plus local exhaust at points of emission to maintain levels of airborne contaminants below exposure limits.

Personal Protective Equip:

HMIS PP, H | Splash Goggles, Gloves, Long Sleeves & Pants.

Appropriate Hygienic Practices:

Avoid contact with eyes, skin, and clothing. Avoid breathing vapors, fumes, and mists. Avoid prolonged or repeated exposure. Wash thoroughly after handling, and before eating, drinking or smoking.

If mists or aerosols are generated during handling wear a respirator equipped with an organic vapor cartridge.

Other:

Emergency shower and eyewash facility should be in close proximity.



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9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Color varies with product number.	Odor:	Slight (less than 1ppm)
Physical State:	Viscous Liquid	Solubility:	Solubility in Water: Negligible
Spec Grav./Density:	Varies with color: 1.34 - 1.353 (Water = 1)	Percent Volatile:	100% (w/w)
Viscosity:	Varies with product number.	Flash Point:	42.8 C (109.04 F)
Flammability:	Flammable (Will burn under fire conditions)	VOC:	Exempt
		Auto-ignition Temp:	500 C (932 F)

Exposure Limits:
 OSHA: None Established
 PEL (Permissible Exposure Limit): No exposure standard allocated.
 ACGIH TLV (Threshold Limit Value): None established.

10 STABILITY AND REACTIVITY

Stability:	Stable
Conditions to Avoid:	Extreme temperatures, moisture, vapor formation and sources of ignition.
Materials to Avoid:	Strong oxidizing agents, strong acids, water and alkalines.
Hazardous Decomposition:	Chlorine-containing gases, fluorine-containing gases may be preserved in products containing p-chlorobenzotrifluoride, Carbon dioxide and silicon oxides may be produced from all coating formulations.
Hazardous Polymerization:	Will not occur.

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TOXICOLOGICAL INFORMATION**GENERAL INFORMATION:**

Acute oral toxicity: Low toxicity, LD50 > 2000 mg/kg

Acute dermal toxicity: Low toxicity, LD50 > 2000 mg/kg

COMPONENTS:

H-Series (Part A) Resin; Trade Secret: Heat-Curable, High-Temperature resin(s)

H-SERIES SUPPLEMENTAL INFORMATION:

Contains < 11 wt% Cr(III) oxide-based pigments.

Toxicity information for chromium (III) oxide-based pigments:

Acute toxicity (Oral LD50) >/- 5.41 mg/l (dust/mist).

Carcinogenic Effects:

NTP: Not Listed

ACGIH: A4 - Not classifiable for human or animal.

IARC: 3 - Not classifiable for human.

OSHA: Not Listed.

NOTE: NTP, IARC and ACGIH found that "there is sufficient evidence for the carcinogenicity of chromium and certain chromium compounds both in humans and experimental animals." The chromium compounds that are considered carcinogenic are hexavalent chromium compounds [Cr(VI)]. The chromium oxide-based pigments present in the NIC products listed above are all trivalent, refractory chromium compounds [Cr(III)], each containing 1ppm or less of leachable hexavalent chromium (</- 0.0001%). The toxicity information stated above are for Cr(III) oxide-based C.I. Pigments as stated in SDS's provided by the pigment suppliers.

Mutagenic Effects:

Mutagenic for mammalian somatic cells. Mutagenic for bacteria and/or yeast. May cause damage to the following organs: upper-respiratory tract, skin.

REGULATION: US, IARC Monographs on

Occupational Exposures to

Chemical Agents.

REMARKS:

U.S. IARC Monographs on Occupational Exposures to Chemical Agents: Not classified by the International Agency for Research on Cancer (IARC).

SENSITIZATION: May cause skin sensitization.

CARCINOGENICITY: Recent 2-year bioassays in rats and mice exposed by the dermal route to H-Series (Part A) Resin type compositions yielded NO EVIDENCE of carcinogenicity to the skin or any other organs.

MUTAGENICITY: Inactive when tested by vivo mutagenicity assays.

POTENTIAL HEALTH EFFECTS:

Inhalation: Not expected to be a relevant route of exposure; however, under conditions where exposure to vapors or mists is possible, could cause respiratory tract irritation.

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Skin: May be mildly irritating to the skin.
May cause skin sensitization.

Eyes: May be mildly irritating to the eyes.

Ingestion: Not likely to be a relevant route of exposure.

COMPONENTS:

TRADE SECRET: Ceramic and/or metallic pigments and colorants.

REGULATIONS:

NTP Carcinogen: No

IARC Monographs: No

OSHA Regulated: No

Not known to contain any ingredients recognized as carcinogens by the National Toxicology Program (NTP), the International Agency for Cancer Research or the Occupational Safety and Health Administration (OSHA).

SENSITIZATION: May cause an allergic skin reaction.

CARCINOGENICITY: Not listed as a carcinogen by NTP.

POTENTIAL HEALTH EFFECTS: No human studies have been conducted with this material. The use of recommended protective equipment should prevent any adverse effects.

Inhalation: May cause irritation of the respiratory tract. Prolonged or repeated exposure may cause lung damage.

Skin: May be mildly irritating to the skin.

Eyes: Dust may cause irritation and inflammation.

Ingestion: Not likely to be a relevant form of exposure.

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ECOLOGICAL INFORMATION

Ecotoxicity Effects:

Toxicity to fish: Acute LC 50 1.3 mg/l Fish 96h

203 Fish, Acute Toxicity Test.

Acute LC 50 > 11 mg/l Aquatic plants/Algae 72h

Ceramic and/or metallic pigments and colorants:

Oral LD50, rat: 200-2000 mg/kg

Skin irritation, rabbit; severe erythema with signs of necrosis after 1-hour exposure.

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13 DISPOSAL CONSIDERATIONS

Do not mix this product with aqueous or other protic waste streams. Incineration of combustible waste material in a permitted facility in accordance with the local, state and federal regulations is the recommended disposal method.

This product is not regulated by the EPA. It is the waste generator's responsibility to determine how disposal must occur. Disposal should be made in accordance with federal, state and local regulations. Minimize or avoid the generation of waste whenever possible. Dispose of waste, unused material and empty containers in a licensed facility.

DO NOT DISCHARGE INTO DRAINS, SURFACE WATERS OR GROUNDWATER.

14 TRANSPORT INFORMATION

DOT Class: Not regulated

US DOT: Not Regulated for Transport

IATA: Not Regulated for Transport

ICAO: Not Regulated for Transport

(p-chlorobenzotrifluoride does not sustain combustion as determined by ASTM D 4206. It is therefore excepted from classification as a flammable liquid (see 49 CFR 173.20(a)(3))

15 REGULATORY INFORMATION

NIC Industries, Inc. coatings meet all air quality and regulatory requirements with respect to manufacturing and application. Specifically the hardened finished product does not release any "volatile organic compounds" (VOC) under any ambient conditions.

TSCA: All components of this product that are required to be on the TSCA Inventory are listed on the Inventory.

SARA/TITLE III HAZARD CATEGORIES:

Immediate (Acute) Health: YES

Delayed (Chronic) Health: YES

Sudden Release of Pressure: NO

Fire Hazard: YES

Reactive Hazard: NO

CERCLA: Hazardous Substances: tert-Butyl acetate: 5000 lbs. (2268 kg):

Parachlorobenzotrifluoride was designated by the Interagency Testing Committee for action by the EPA under Section 4(e) of the Toxic Substance Control Act. As a result of data submitted under a negotiated testing program, the EPA subsequently concluded that the information provided adequately characterized the Health, Environmental and Chemical fate effects of parachlorobenzotrifluoride and issued a decision not to require further testing.

Other Regulations:

OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).

EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances (EINECS No. 20-2.681-1).

STATE REGULATIONS: Consult local laws for applicability:



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California Proposition 65 Warnings:

California prop. 65. This product contains the following ingredients for which the State of California has found to cause cancer which would require a warning under the statute: No products were found.

California prop. 65: This product contains the following ingredients for which the State of California has found to cause birth defects which would require a warning under the statute: No products were found.

INTERNATIONAL REGULATIONS: Consult the regulations of the importing country.

Canada: WHMIS Hazard Class: B3

Australia: Listed on AICS

Philippines: Listed on National Inventory (PICCS).

China: Listed on National Inventory.

Japan: Listed on National Inventory (ENCS).

Korea: Listed on National Inventory (PICCS).

DSCL (EEC):

R37/38-Irritating to respiratory system and skin.

R41-Risk of serious damage to eyes.

COMPONENT / (CAS/PERC) / CODES

*Chromium (III) oxide (1308309 n/a/%) MASS, TSCA.

Parachlorobenzotrifluoride (98-56-6 70-85%)

REGULATORY KEY DESCRIPTIONS

TSCA = Toxic Substances Control Act

CERCLA = Superfund clean up substance

CSWHS = Clean water Act Hazardous substances

MASS = MA Massachusetts Hazardous Substances List

OSHAWAC = OSHA workplace Air Contaminants

PA = PA Right-To-Know List of Hazardous Substances

TXAIR = TX Air Contaminants with Health Effects Screening Level

U.S. TOXIC SUBSTANCES CONTROL ACT: All components of this product are on the TSCA Inventory or are exempt from the TSCA Inventory requirements under 40 CFR 720.30.

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OTHER INFORMATION

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

U.S. Federal Regulations:

OSHA Standard 29 CFR 1910.1200 requires that information be provided to employees regarding the hazards of chemicals by means of hazard communication program including labeling, material safety data sheets, training and access to written records. We request that you, and it is your legal duty to, make all information in this Material Safety Data Sheet available to all your employees.

NON-WARRANTY: The information presented in this publication is based upon the research and experience of NIC Industries, Inc. No representation or warranty is made, however, concerning the accuracy or completeness of express or

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