MSDS GHS Safety Data Sheet

NIC Industries, Inc

Piston Coat

MSDS Number: V13607302012 Revision Date: 07/30/2012

1 PRODUCT AND COMPANY IDENTIFICATION

Manufacturer

NIC Industries, Inc
7050 6th Street
White City, OR 97503

Phone: 541.826.1922
Fax: 541.830.6522
Email: info@nicindustries.com
Web: www.nicindustries.com

Product Name: Piston Coat
Revision Date: 07/30/2012
Version: 1
MSDS Number: V13607302012
Product Code: V-136
Product Use: Heat Cured Polymer Based Ceramic Industrial Coating

2 HAZARDS IDENTIFICATION

Route of Entry: Eyes, Ingestion, Inhalation, Skin
Target Organs: Central Nervous System, Kidneys, Liver
Inhalation: Toxic if inhaled (may cause cancer by inhalation). May cause respiratory tract irritation, lung injury, coughing and breathing difficulties.
Skin: Causes severe skin irritation and skin burns with redness, pain and swelling. May cause itching, swelling or rashes.
Eye: Causes severe eye irritation, eye burns, tearing, pain or blurred vision. May cause permanent eye damage or a brief reversible dimness of sight.
Ingestion: Toxic if ingested. Symptoms caused by ingestion unknown.

VOC: 2.96 lb/gal (VOC present as 1-chloro-4 - (trifluoromethyl)-benzene). 1-chloro-4 - (trifluoromethyl)-benzene is listed as a VOC-exempt solvent. Contains chemicals tha may cause pulmonary granulomas and act similar to lanthanons.

NFPA: Health = 3, Fire = 3, Reactivity = 1
HMIS III: H3/F3/PH1

3 COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients:

Cas #	Percentage	Chemical Name
	51%	Proprietary Formulation
98-56-6	25%	Benzene, 1-chloro-4-(trifluoromethyl)-
12001-26-2	6.2-7.7%	Mica
1317-80-2	4.5-5.2%	Rutile (TiO2)
1314-23-4	5.5-6.2%	Zirconium oxide (ZrO2)
14807-96-6	1-2%	Talc (containing no asbestos fibers)
1314-36-9	<1%	Yttrium oxide (Y2O3)
1309-37-1	<1%	Ferric oxide

4 FIRST AID MEASURES

Inhalation: Remove to fresh air. If breathing is difficult, have trained person administer oxygen. If breathing stops, have trained person administer artificial respiration. Keep victim warm. Seek immediate medical attention.

Skin Contact: Remove contaminated clothing and shoes. Wash thoroughly with soap and water for at least 15 minutes. Wash clothing before reuse. Seek immediate medical attention.

Eye Contact: Immediately flush with water for 15 to 30 minutes, occassionally lifting eyelids to ensure thorough rinsing. Seek immediate medical attention.

Ingestion: Rinse mouth out and then drink plenty of water. Only induce vomiting at the instruction of medical personnel. Never induce vomiting or give anything by mouth to an unconscious or convulsing person. Seek immediate medical attention.

5 FIRE FIGHTING MEASURES

Flash Point: Not available
LEL: Not available
UEL: Not available
Flammability: NFPA Class IB Flammable Liquid

Extinguishing Media:
Dry chemical powder, water spray or appropriate foam.

Fire and Explosion Hazard:
Combustible Liquid. Over-heated containers may rupture. Use proper personal protective equipment. Product may expand when under pressure.

6 ACCIDENTAL RELEASE MEASURES

Personal Precautions:
Keep all unecessary personnal away, and isolate hazard area. Ensure adequate ventilation and use proper personal protective equipment. 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) then sweep up and dispose of

appropriately, or recover material using hand or explosion proof pump. Clean contaminated area with soap and water and remove contaminated soils. Transfer to a container for disposal according to local/state/national regulations.

Large Spills:
Dike to contain and pump into drums for disposal. Follow directions listed above under small spills.

7 HANDLING AND STORAGE

Handling Precautions:
Keep away from heat, sparks, pilot lights, welding operations, and open flames.
Use with adequate ventilation.
Vapors are heavier than air and will tend to collect in low areas - avoid use in confined spaces.
Avoid breathing fumes.
Avoid bodily contact with material.
Wear appropriate personal protective equipment.
Wash thoroughly after handling, avoid contact with eyes.
No eating, drinking or smoking near areas where substance is handled, processed or stored.
Poorly ventilated areas could contain concentrations high enough to cause unconsciousness and death.

Storage Requirements:
Keep away from all sources of ignition.
Avoid moisture and static electricity discharges.
Keep tightly closed when not being used.
Label all containers appropriately.
Do not reuse containers.
Do not store near food or drinks.
Store in a cool dry place designated for combustible liquid storage.
Vent periodically, if needed, to release head pressure.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls:
Adequate room ventilation plus local exhaust at points of emission to maintain levels of airborne contaminates below exposure limits. Use of fume hoods or closed booths recommended when product is used in a manner that may generate mist or aerosol.

Personal Protective Equip:
HMIS PP, F | Goggles, Gloves, Apron (impervious protective clothing are recommended with apron), Dust/Mist Respirator

Wear an appropriate, propertly fitted respirator (NIOSH/MSHA approved) during and after application. Follow respirator manufacturer's directions for respirator use. Use NIOSH approved respirator (particle mask) for fumes. Do not breathe vapors.

Other:
Emergency shower and eyewash facility should be in close proximity. Completely isolate and thoroughly clean all equipment, piping or vessels with a high flash, non-polar solvent before beginning maintenance or repairs.

9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Dark brass liquid, hardens to a dark brass ceramic		
Physical State:	Liquid (After curing solid)	**Odor:**	Ammonia
Viscosity:	~44.33 cP	**Solubility:**	Virtually Insoluble
Boiling Point:	N/A - material hydrolyzes		

10 STABILITY AND REACTIVITY

Stability:	Stable.
Conditions to Avoid:	Sources of ignition, incompatible materials.
Materials to Avoid:	This product may react with strong oxidizers, strong acids, isocyanates, some protic solvents, water and strong alkalies.
Hazardous Decomposition:	May contain carbon monoxide, carbon dioxide, hydrogen fluoride, ammonia and hydrogen chloride gas.
Hazardous Polymerization:	Will not occur.

11 TOXICOLOGICAL INFORMATION

Product contains Rutile. IARC has classified Rutile (TiO2) as group 2B (possibly carcinogenic to humans). Tumors were observed in rats and mice only after chronic long term inhalation exposure to high concentrations which caused sustained lung inflammation.

Reported Human Effects:
No human studies have been conducted with this material. The use of recommended protective equipment should prevent any adverse effects. Substance is very corrosive to the human body and may contain chemicals that are possible mutagens.

Reported Animal Effects (from components of liquid ceramic):
Oral LD50, rat: 500-2000 mg/kg
Dermal toxicity, rat: 700-2000 mg/kg.

Prolonged exposure may cause pneumoconiosis, pulmonary granulomas and cancer.

12 ECOLOGICAL INFORMATION

Water hazard class 1 (self-assessment): Slightly hazardous for water.
Avoid disposal in landfills and sewage systems.

Avoid release to surface waters and waste treatment systems. This material is hazardous and toxic to aquatic organisms.

13 DISPOSAL CONSIDERATIONS

This product is not regulated by the EPA. It is the waste generator's responsibility to determine if a particular waste is hazardous. Disposal should be made in accordance to federal, state, and local regulations. Dispose of in a licensed facility. Do not discharge into drains, surface waters or groundwater.

14 TRANSPORT INFORMATION

DOT Class: Flammable Liquid (3) #3

US DOT:
Proper Shipping Name: Chlorobenzotrifluorides
Hazard Class: 3
UN Number: 2234
Packing Group: III

IATA:
Proper Shipping Name: Chlorobenzotrifluorides
Hazard Class: 3
UN Number: 2234
Packing Group: III
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15 REGULATORY INFORMATION

HCS Classification: Not Regulated
U.S. Federal Regulations: TSCA All components are listed or exempted
SARA 302/304/311/312/313: No products were found

California Proposition 65:
This product contains no chemicals known to the state of California to cause cancer and birth defects, or other reproductive harm.

Canadian DSL Inventory Status: Proprietary formulation compounds are listed on the NDSL, all other components are listed on the Canadian DSL Inventory List.

*Proprietary Formulation (51%)

*Benzene, 1-chloro-4-(trifluoromethyl)- (98566 25%) TSCA

*Mica (12001262 6.2-7.7%) MASS, OSHAWAC, PA, TXAIR

*Rutile (TiO2) (1317802 4.5-5.2%) TSCA

*Zirconium oxide (ZrO2) (1314234 5.5-6.2%) TSCA

*Talc (containing no asbestos fibers) (14807966 1-2%) MASS, OSHAWAC, PA, TSCA, TXAIR

*Yttrium oxide (Y2O3) (1314369 <1%) TSCA

*Ferric oxide (1309371 <1%) MASS, OSHAWAC, PA, TSCA, TXAIR

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REGULATORY KEY DESCRIPTIONS
---------------------------------------------------------------
TSCA = Toxic Substances Control Act
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
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16 OTHER INFORMATION

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.

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This product safety sheet was prepared in compliance with article 31 and Annex II of the EU REACH Regulation as well as its relevant ammendements, on the approximation of laws, regulations and administrative provisions relative to the classification, packaging and labelling of dangerous substances and preparations.