

# SAFETY DATA SHEET

## Section 1. Identification

**GHS product identifier:** Indurethane Extreme Fleet  
**Product number:** A3-1350  
**Product use:** None known  
**Restrictions on use:**  
**Manufacture/Supplier:** Induron Protective Coatings LLC  
**Address:** 3333 Richard Arrington Jr Blvd N.  
Birmingham, AL 35234  
**Telephone:** 205-324-6942  
**FAX:** 205-324-9584  
**Website:** [www.induron.com](http://www.induron.com)  
**Emergency telephone number:** 800-424-9300 Chemtrec Contract CCN675735

## Section 2. Hazards identification

**OSHA/HCS status:** This material is considered hazardous by the OSHA Hazardous Communication Standard (29 CFR 1910.1200).

**Hazard classification:**

**Physical hazards:** Flammable Liquids: Category 2

**Health hazards:** Acute Toxicity (Inhalation): Category 4  
Acute Toxicity (Oral): Category 4  
Skin Corrosion/Irritation: Category 2  
Serious Eye Damage/Eye Irritation: Category 2B  
Specific Target Organ Toxicity (Single Exposure) (Narcotic effects): Category 3  
Aspiration Hazard: Category 1

### GHS label elements

**Hazard pictograms:**



**Signal word:** Danger

**Hazard statements:** H225: Highly flammable liquid and vapor.  
H302: Harmful if swallowed.  
H332: Harmful if inhaled.  
H315: Causes skin irritation.  
H319: Causes serious eye irritation.  
H304: May be fatal if swallowed and enters airways.  
H335: May cause respiratory irritation.  
H336: May cause drowsiness or dizziness.

**Precautionary statements:**

**Prevention:** P210: Keep away from heat/sparks/open flames/hot surfaces. No smoking.  
P233: Keep container tightly closed.  
P240: Ground/bond container and receiving equipment.  
P241: Use explosion-proof electrical/ventilating/lighting/equipment.  
P242: Use only non-sparking tools.  
P243: Take precautionary measures against static discharge.  
P261: Avoid breathing dust/fume/gas/mist/vapors/spray.  
P264: Wash thoroughly after handling.  
P270: Do not eat, drink or smoke when using this product.  
P271: Use only outdoors or in a well-ventilated area.  
P280: Wear protective gloves/protective clothing/eye protection/face protection.

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<b>Response:</b>	P370+P378: In case of fire; Use water spray, carbon dioxide, dry chemical or alcohol foam for extinction. P302+P352: IF ON SKIN: Wash with plenty of water. P332+P313: If skin irritation occurs: Get medical advice/attention. P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. P363: Wash contaminated clothing before reuse. P301+P312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. P331: Do NOT induce vomiting. P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing. P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337+P313: If eye irritation persists: Get medical advice/attention. P312: Call a POISON CENTER/doctor/physician if you feel unwell. P221 Specific treatment (see first aid section on this label).
<b>Storage:</b>	P403+P233: Store in a well-ventilated place. Keep container tightly closed. P235: Keep cool. P405: Store locked up.
<b>Disposal:</b>	P501: Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

**Hazard(s) not otherwise classified (HNOC):** None known.

## Section 3. Composition / Information on Ingredients

Components	CAS #	Percent
Methyl n-amyl ketone	110-43-0	20-30
Parachlorobenzotrifluoride	98-56-6	10-20
VM&P naphtha	64742-49-0	See following
C9-C15 Alkanes		3-12
C9-C15 Cycloalkanes		1-6
C7-C8 Cycloalkanes		1-6
C7-C8 Alkanes		1-3
Titanium dioxide*	13463-67-7	0-30
Aluminum hydroxide*	21645-51-2	0-3
Silicon dioxide, amorphous*	7631-86-9	0-3
Carbon black*	1333-86-4	0-3
Aluminum powder*	7429-90-5	0-3
Acrylic polyol	none	30-40

\*Titanium dioxide; aluminum hydroxide; silicone dioxide, amorphous; carbon black and aluminum powder are bound within the product matrix.

## Section 4. First aid measures

**Eye Contact:** Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. In case of irritation from airborne exposure, move to fresh air. Get medical attention promptly.

**Skin Contact:** Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before

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reuse. Clean shoes thoroughly before reuse.

**Inhalation:** Remove to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that gas or vapor is still present, the rescuer should wear an appropriate mask of self –contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

**Ingestion:** Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

## **Most important symptoms/effects, acute**

## **Potential acute health effects**

**Eye contact:** Causes serious eye irritation.

**Skin contact:** Causes skin irritation.

**Inhalation:** Harmful if inhaled. Can cause central nervous system (CNS) depression. May cause drowsiness and dizziness.

**Ingestion:** Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways. Irritating to mouth and stomach.

## **Over-exposure signs/symptoms**

**Eye contact:** Adverse symptoms may include the following:  
pain or irritation.  
Watering  
Redness

**Skin contact:** Adverse symptoms may include the following:  
irritation  
redness

**Inhalation:** Adverse symptoms may include the following:  
nausea or vomiting  
headache  
drowsiness/fatigue  
dizziness/vertigo  
unconsciousness

**Ingestion** Adverse symptoms may include the following:  
nausea or vomiting

## **Indication of immediate medical attention and special treatment needed, if**

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## necessary

**Notes to physician:** If ingested, this material presents a significant aspiration and chemical pneumonitis hazard. Indication of emesis is not recommended. Consider activated charcoal and/or gastric lavage. If patient is obtunded, protect the airway by cuffed endotracheal intubation or by placement of body in a Trendelenburg and left lateral decubitus position.

**Specific treatments:** Treat symptomatically and supportively.

**Protection of first-aiders:** No action shall be taken involving any personal risk or without suitable training. If it is suspected that gas or vapor is still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

## Section 5. Fire-fighting measures

**Suitable extinguishing media:** Use dry chemical, carbon dioxide, water spray (fog) or foam.

**Unsuitable extinguishing media:** Do not use water jet.

**Special hazards arising from the substance or mixture:** Highly flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard.

**Hazardous thermal decomposition products:** Decomposition products may include the following materials: carbon dioxide, carbon monoxide, smoke, oxides of nitrogen.

**Special protective actions for fire-fighters:** Cool closed containers exposed to fire with water. Do not release runoff from fire to drains or watercourses.

**Special protective equipment for fire-fighters:** Fire-fighters should wear appropriate protective equipment and self contained breathing apparatus with full face piece operated in the positive pressure mode.

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

**For non-emergency personnel:** Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

**For emergency responders:** If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

**Environmental precautions:** Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

**Methods and material for**

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**containment and cleaning up:** Eliminate sources of ignition. Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container. Avoid runoff into storm sewers and ditches which lead to waterways. Use only non-combustible material for clean-up. Recover by pumping (use explosion proof or hand pump). Use clean, non-sparking tools to collect absorbed materials. Eliminate all ignition sources. Prevent additional discharge of material is able to do so safely. Do not touch or walk through spilled material. Collect spilled materials for disposal. Wear appropriate personal protective equipment (see Section 8 Exposure controls/personal protection). Evacuate unnecessary personnel. Do not apply water to the leak.

## Section 7. Handling and storage

**Precautions for safe handling:** Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not swallow. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion proof electrical equipment. Empty containers retain product residue and can be hazardous. Do not reuse container. Ground and bond containers when transferring material. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

**Conditions for safe storage, including any incompatibilities:**

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

## Section 8. Exposure controls / personal protection

**Control parameters**  
**Occupational exposure limits**

**U.S. ACGIH Threshold Limit Values**

Components	Type	Value	Form
C9-C15 Cycloalkanes	TWA	400ppm 8 hours	Methylcyclohexane
C7-C8 Alkanes	TWA	1500 mg/m <sup>3</sup>	
Special Naphtholite 66/3	Notes: The TLV for the hydrocarbon solvent is based on the procedure described in Appendix H ("Reciprocal Calculations Method for Certain Refined Hydrocarbon Solvent Vapors") of the ACHIH TLVs® and BEIs®	247ppm (1200 mg/m <sup>3</sup> ) 8 hours	

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guidelines. The  
GGVmixture (ACHIH TLV)  
is based on Column B  
(McKee et al., 2005) of  
Table 1 ("Group Guidance  
Values") of Appendix H.

Heptan-2-one; methyl amyl ketone	TWA	50ppm	
Aluminum hydroxide	TWA	1 mg/m3	Respirable fraction
Aluminum powder	TWA	1 mg/m3	Respirable fraction
Titanium dioxide	TWA	10 mg/m3	

**U.S. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)**

Components	Type	Value	Form
Heptan-2-one; methyl amyl ketone	PEL	100ppm 465 mg/m3	
Aluminum powder	PEL	5 mg/m3	Respirable dust
Titanium dioxide	PEL	15mg/m3	Total dust

**U.S. OSHA Table Z-3 (29 CFR 1910.1000)**

Components	Type	Value	Form
Silicon dioxide	TWA	0.8 mg/m3 20mppcf	

**Appropriate engineering controls:**

Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

**Individual protection measures**

**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. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/face protection:**

Safety glasses equipped with side shields are recommended as minimum protection in industrial settings.

**Skin protection**

**Hand protection:**

Chemical-resistant gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers.

**Body protection: Other**

Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**skin protection:**

Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Respiratory protection:**

Use a properly fitted, air-purifying or supplied-air respirator complying with an approved standard if a risk assessment indicated this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

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## Section 9. Physical & Chemical Properties

### Appearance

<b>Physical state:</b>	Liquid
<b>Form:</b>	Liquid
<b>Color:</b>	Opaque
<b>Odor:</b>	Pungent
<b>Odor threshold:</b>	Not available
<b>pH:</b>	Not available
<b>Melting point/freezing point:</b>	Not available
<b>Initial boiling point and boiling range:</b>	129°C-152°C (264.2°F-305.6°F)
<b>Flash point:</b>	20.5°C (68.9°F) (Tag closed cup)
<b>Evaporation rate:</b>	Not available
<b>Upper/lower flammability or explosive limits:</b>	Not available
<b>Vapor pressure:</b>	Not available
<b>Vapor density:</b>	! 1 Air = 1
<b>Relative density:</b>	0.9899-1.3612
<b>Solubility(ies):</b>	Insoluble in the following materials: cold water
<b>Partition coefficient: n-octanol/water:</b>	Not available
<b>Auto-ignition temperature:</b>	Not available
<b>Decomposition temperature:</b>	Not available
<b>Viscosity:</b>	18"-22" # 4 Ford cup
<b>VOC (mixed less water &amp; exempt compounds):</b>	415 grams/liter
<b>Other information:</b>	No additional information

## Section 10. Chemical stability & reactivity information

<b>Reactivity:</b>	None known.
<b>Chemical stability:</b>	Stable.
<b>Possibility of hazardous reactions:</b>	None known.
<b>Conditions to avoid:</b>	All possible sources of ignition (heat, sparks, flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapor to accumulate in low or confined areas.

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**Incompatible materials:** Strong oxidizing agents. Strong acids. Strong alkalis.

**Hazardous decomposition products:** Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

**Conclusion/summary:** C9-C15 Alkanes: In animal studies utilizing mineral spirits containing up to 22% aromatics indicated that the acute central nervous system effects are reversible. Based on existing animal studies, the potential for persistent effects is not clear.

**Oral:** Heptan-2-one; methyl amyl ketone: Oral LD50: (Rat): 1,600 mg/kg

**Dermal:** Heptan-2-one; methyl amyl ketone: Dermal LD50: (Rat): > 2,000 mg/kg

**Inhalation:** Heptan-2-one; methyl amyl ketone: LC50: (Rat, 4 h): > 16.7 mg/l

#### Irritation/Corrosion

**Skin:** Primary dermal irritation studies (four hour exposure) in rabbits utilizing mineral spirits containing less than 2% aromatics resulted in slight to moderate skin irritation. In humans, mineral spirits have produced slight to moderated skin irritation particularly with evaporation from the skin is prevented.

Heptan-2-one; methyl amyl ketone: (Rabbit, 24 h): moderate

**Eyes:** Heptan-2-one; methyl amyl ketone: (Rabbit, 24 h): slight

**Respiratory:** C9-C15 Alkanes: Animal studies have demonstrated that mineral spirits produced mild respiratory tract irritation at elevated concentrations. Also, sensory respiratory tract irritation was evident by reduced breathing rates in the test animals in certain studies.

#### Sensitization

**Skin:** C9-C15 Alkanes: In animal studies utilizing mineral spirits containing up to 18% aromatics skin sensitization is not evident.

Heptan-2-one; methyl amyl ketone: (Mouse) – non-sensitizing

**Respiratory:** Not available

#### Mutagenicity

**Conclusion/Summary:** C9-C15 Alkanes: In vivo and in vitro studies on mineral spirits containing up to 22% aromatics indicate that these products are not genotoxic.

Heptan-2-one; methyl amyl ketone: not available

Parachlorobenzotrifluoride: not available

#### Carcinogenicity



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## Conclusion/Summary:

C9-C15 Alkanes: The National Toxicology Program (NTP) conducted two-year carcinogenicity studies in rats and mice with Stoddard Solvent IIC (less than 2% aromatics). The studies indicated that there was some evidence of carcinogenic activity in male rats (adrenal medulla neoplasms and renal tubule adenoma) but no evidence of carcinogenic activity in female rats. Further, there was equivocal evidence of carcinogenic activity in female mice (hepatocellular adenoma) but no evidence of carcinogenic activity in male mice. A low carcinogenic potential is suggested by a lack of genotoxic potential identified in in vivo and in vitro genetic toxicity tests (with and without metabolic activation).

Heptan-2-one; methyl amyl ketone: not available

Parachlorobenzotrifluoride: not available

Titanium dioxide: In lifetime inhalation studies rats were exposed for 2 years to respectively 10, 50 and 250 mg/m<sup>3</sup> of respirable TiO<sub>2</sub>. Slight lung fibrosis was observed at 50 and 250 mg/m<sup>3</sup> levels. Microscopic lung tumors were also observed in 13 percent of the rats exposed to 250 mg/m<sup>3</sup>, an exposure level that caused lung overloading and impairment of rat lungs clearance mechanisms. In further studies, these tumors were found to occur only under particle overload conditions in a uniquely sensitive species, the rat, and have little or no relevance for humans. The pulmonary inflammatory response to TiO<sub>2</sub> particles exposure was also found to be much more severe in rats than in other rodent species. In February 2006, IARC has re-evaluated Titanium dioxide as pertaining to Group 2B: "possibly carcinogenic to humans", based upon inadequate evidence in humans and sufficient evidence in experimental animals for the carcinogenicity of titanium dioxide. IARC evaluation guidelines consider the generation of tumors, in 2 different studies within the same animal species, to be adequate criteria for an assessment of sufficient evidence.

The conclusions of several epidemiology studies on more than 20000 TiO<sub>2</sub> industry workers in Europe and the USA did not suggest a carcinogenic effect of TiO<sub>2</sub> dust on the human lung. Mortality from other chronic diseases, including other respiratory diseases, was also not associated with exposure to TiO<sub>2</sub> dust. Based upon all available study results, DuPont scientists conclude that titanium dioxide will not cause lung cancer or chronic respiratory diseases in humans at concentrations experienced in the workplace.

Carbon black:

### ANIMAL TOXICITY:

Rat, oral, duration 2 years  
Effect: no tumors.

Mouse, oral, duration 2 years  
Effect: no tumors.

Rat, inhalation, duration 2 years  
Target organ: lungs.  
Effect: inflammation, fibrosis, tumors.

Note: Tumors in the rat lung are considered to be related to the "lung overload" rather than to a specific chemical effect of carbon black itself in the lung. These effects in rats have been reported in many studies on other poorly soluble inorganic particles and appear to be rat specific (ILSI, 2000). Tumors have not been observed in other species (i.e., mouse and hamster) for carbon black or other poorly soluble particles under similar circumstances and study conditions.

### MORTALITY STUDIES (HUMAN DATA):

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A study on carbon black production workers in the UK (Sorahan, 2001) found an increased risk of lung cancer in two of the five plants studied; however, the increase was not related to the dose of carbon black. Thus, the authors did not consider the increased risk in lung cancer to be due to carbon black exposure. A German study of carbon black workers at one plant (Morfeld, 2006; Buechte, 2006) found a similar increase in lung cancer risk but, like the Sorahan, 2001 (UK study), found no association with carbon black exposure. A large US study of 18 plants showed a reduction in lung cancer risk in carbon black production workers (Dell, 2006). Based upon these studies, the February 2006 Working Group at the International Agency for Research on Cancer (IARC) concluded that the human evidence for carcinogenicity was inadequate (IARC, 2010).

Since the IARC evaluation of carbon black, Sorahan and Harrington (2007) have re-analyzed the UK study data using an alternative exposure hypothesis and found a positive association with carbon black exposure in two of the five plants. The same exposure hypothesis was applied by Morfeld and McCunney (2009) to the German cohort; in contrast, they found no association between carbon black exposure and lung cancer risk and, thus, no support for the alternative exposure hypothesis used by Sorahan and Harrington.

Over, as a result of these detailed investigations, no causative link between carbon black exposure and cancer risk in humans has been demonstrated.

## IARC CANCER CLASSIFICATION:

In 2006 IARC re-affirmed its 1995 finding that there is "inadequate evidence" from human health studies to assess whether carbon black causes cancer in humans. IARC concluded that there is "sufficient evidence" in experimental animal studies for the carcinogenicity of carbon black. IARC's overall evaluation is that carbon black is "possibly carcinogenic to humans (Group 2B)". This conclusion was based on IARC's guidelines, which generally require such a classification if one species exhibits carcinogenicity in two or more animal studies (IARC, 2010).

Solvent extracts of carbon black were used in one study of rats in which skin tumors were found after dermal application and several studies of mice in which sarcomas were found following subcutaneous injection. IARC concluded that there was "sufficient evidence" that carbon black extracts can cause cancer in animals (Group 2B).

## ACGIH CANCER CLASSIFICATION:

Confirmed Animal Carcinogen with Unknown Relevance to Humans (Category A3 Carcinogen).

## Reproductive toxicity

### Conclusion/Summary:

C9-C15 Alkanes: There were no treatment-related effects on pregnancy rate, mortality or gross post mortem observations in animal studies utilizing mineral spirits containing less than 2% aromatics.

Heptan-2-one; methyl amyl ketone: not available

Parachlorobenzotrifluoride: not available

## Specific target organ toxicity

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**(single exposure):**

C9-C15 Alkanes: Category 3, narcotic effects  
C9-C15 Cycloalkanes: Category 3, narcotic effects  
C7-C8 Cycloalkanes: Category 3, narcotic effects  
C7-C8 Alkanes: Category 3, narcotic effects

Heptan-2-one; methyl amyl ketone: not available

Parachlorobenzotrifluoride: not available

**Specific target organ toxicity  
(repeated exposure):**

Not available

**Aspiration hazard:**

C9-C15 Alkanes: ASPIRATION HAZARD – Category 1  
C9-C15 Cycloalkanes: ASPIRATION HAZARD – Category 1  
C7-C8 Cycloalkanes: ASPIRATION HAZARD – Category 1  
C7-C8 Alkanes: ASPIRATION HAZARD – Category 1

Heptan-2-one; methyl amyl ketone: not available

Parachlorobenzotrifluoride: not available

**Information on likely routes of  
exposure:**

Routes of entry anticipated: Oral, Dermal, Inhalation.

**Potential acute health effects:**

**Eye contact:**

Causes serious eye irritation.

**Inhalation:**

Harmful if inhaled. Can cause central nervous system (CNS) depression. May cause drowsiness and dizziness.

**Skin contact:**

Causes skin irritation.

**Ingestion:**

Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways. Irritating to mouth, throat and stomach.

**Symptoms related to the  
physical, chemical and  
toxicological characteristics**

**Eye contact:**

Adverse symptoms may include pain or irritation, watering, redness.

**Inhalation:**

Adverse symptoms may include nausea or vomiting, headache, drowsiness/fatigue, dizziness/vertigo, unconsciousness.

**Skin contact:**

Adverse symptoms may include irritation, redness.

**Ingestion:**

Adverse symptoms may include nausea or vomiting.

**Potential chronic health  
effects:**

Overexposure may cause nervous system damage. Overexposure may cause kidney damage. May cause liver disorder (e.g., edema, proteinuria) and damage. Significant exposure adversely affect people with chronic disease of the respiratory system, skin, and/or eyes.

**Section 12. Ecological information**

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## Toxicity

### Acute toxicity

#### Fish

Product: Not available

#### Specified substances:

Heptan-2-one; methyl amyl ketone LC-50 (Fathead Minnow, 96 h): 131 mg/l

#### Aquatic invertebrates

Product: Not available

### Chronic toxicity

#### Fish

Aluminum powder LC-50 (96 h): less than or equal to 0.16 mg/l

#### Aquatic invertebrates

Product: Not available

#### Toxicity to aquatic plants

Product: Not available

#### Specified substances:

Heptan-2-one; methyl amyl ketone ErC50 (Selenastrum capricornutum, 72 h): 98.2 mg/l

## Persistence and degradability

#### Biodegradation

Product: Not available

#### Specified substances:

Heptan-2-one; methyl amyl ketone 69% (28 d, Ready Biodegradability-CO2 in Sealed Vessels (Headspace Test))

#### Biological Oxygen Demand

Product: Not available

#### Specified substances:

Heptan-2-one; methyl amyl ketone BOD-5: 1,770 mg/g  
BOD-20: 2,000 mg/g

#### Chemical Oxygen Demand

Product: Not available

#### Specified substances:

Heptan-2-one; methyl amyl ketone 2,420 mg/g

BOD/COD ratio: Not available

Bioaccumulative potential: Not available

Mobility in soil: Not available

Results of PBT and vPvB assessment: Not available

Other adverse effects: Not available

## Section 13. Disposal considerations

Disposal methods: Dispose of waste in accordance with all local, state and federal regulations.

## Section 14. Transport information

### DOT

#### Basic shipping requirements:

UN number UN1263  
Proper shipping name Paint  
Hazard class Flammable Liquid

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Labels required 3  
Additional information:  
Packaging exceptions 150  
Packaging non bulk 173  
Packaging bulk 242

## IATA

Basic shipping requirements:  
UN Number 1263  
Proper shipping name Paint  
Hazard class 3  
Packing group II

## Section 15. Regulatory information

### US federal regulations

OSHA: This product is hazardous according to OSHA 29 CFR 1910.1200

SARA Title III Section 313 – Toxic Chemical: Listed Substance: None

SARA Title III Section 302 Extremely hazardous substances: None

SARA Title III Section 311/312 Hazard categories: Immediate (acute) health hazard  
Delayed (chronic) health hazard  
Fire hazard

### Inventory Status

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\* A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

### State Regulations

**California Proposition 65:** **Warning:** This product contains a chemical known to the State of California to cause cancer.  
**Warning:** This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

**Massachusetts RTK:** Silicon dioxide (CAS 7631-86-9)  
Titanium Dioxide (CAS 13463-67-7)  
Nonane

**New Jersey RTK:** Silicon dioxide (CAS 7631-86-9)  
Titanium Dioxide (CAS 13463-67-7)  
Nonane

**Pennsylvania RTK:** Silicon dioxide (CAS 7631-86-9)  
Titanium Dioxide (CAS 13463-67-7)  
Nonane

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## Section 16. Other Information

<b>Further information</b>	HMIS® is a registered trade and service mark of the NPCA
<b>HMIS® ratings</b>	Health: 2 Flammability: 3 Physical hazard: 1
<b>NFPA ratings</b>	Health: 2 Flammability: 3 Instability: 1
<b>Disclaimer</b>	The information in the sheet was written based on the best knowledge and experience currently available.
<b>Issue date</b>	05/26/2015

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## Section 1. Identification

GHS product identifier: Indurethane Extreme Fleet  
Product number: Q3-1350  
Product use: None known  
Restrictions on use:  
Manufacture/Supplier: Induron Protective Coatings LLC  
Address: 3333 Richard Arrington Jr Blvd N.  
Birmingham, AL 35234  
Telephone: 205-324-6942  
FAX: 205-324-9584  
Website: [www.induron.com](http://www.induron.com)  
Emergency telephone number: 800-424-9300 Chemtrec Contract CCN675735

## Section 2. Hazards identification

OSHA/HCS status: This material is considered hazardous by the OSHA Hazardous Communication Standard (29 CFR 1910.1200).

Hazard classification:

Physical hazards: Flammable Liquids: Category 3

Health hazards: Skin Irritation: Category 2  
Skin Sensitizer: Category 1  
Eye Irritation: Category 2  
Acute Toxicity/Inhalation: Category 4  
Respiratory Sensitizer: Category 1  
Specific Target Organ Toxicity (Single Exposure): Category 3, RT1

### GHS label elements

Hazard pictograms:



Signal word: Danger

Hazard statements: H226: Flammable liquid and vapor.  
H315: Causes skin irritation.  
H317: May cause an allergic skin reaction.  
H319: Causes serious eye irritation.  
H332: Harmful if inhaled.  
H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
H335: May cause respiratory irritation.

Precautionary statements:

Prevention: P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P240: Ground/bond container and receiving equipment.  
P241: Use explosion-proof electrical/ventilating/lighting/equipment.  
P242: Use only non-sparking tools.  
P243: Take precautionary measures against static discharge.  
P261: Avoid breathing dust/fumes/gas/mist/vapors/spray.  
P264: Wash thoroughly after handling.  
P271: Use only outdoors or in a well-ventilated area.  
P272: Contaminated work clothing should not be allowed out of the workplace.  
P280: Wear protective gloves/protective clothing/eye protection/face protection.

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P284: (in the case of inadequate ventilation) wear respiratory protection.

Response: P302+P352: IF ON SKIN: Wash with plenty of water.  
P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P312: Call a POISON CENTER/doctor/physician if you feel unwell.  
P321: Specific treatment (see first aid section on this label).  
P333+P313: If skin irritation or rash occurs: Get medical advice/attention.  
P337+P313: If eye irritation persists: Get medical advice/attention.  
P342+P311: If experiencing respiratory symptoms: Call a POISON CENTER/doctor/physician  
P362+P364: Take off contaminated clothing and wash it before reuse.  
P370+P378: In case of fire: Use appropriate method to extinguish.

Storage: P403+P233: Store in a well-ventilated place. Keep container tightly closed.  
P403+P235: Store in a well-ventilated place. Keep cool.  
P405: Store locked up.

Disposal: P501: Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC): None known.

## Section 3. Composition / Information on Ingredients

Components:	CAS #	Percent
Parachlorobenzotrifluoride	98-56-6	50-75
HDI homopolymer	28182-81-2	25-50

## Section 4. First aid measures

Eye Contact: Immediately flush eyes with water. Flush eyes with water for a minimum of 15 minutes, occasionally lifting and lowering upper lids. Get medical attention promptly.

Skin Contact: Immediately flush skin with plenty of water. Remove clothing. Get medical attention immediately. Wash clothing separately and clean shoes before reuse.

Inhalation: Rescuers should put on appropriate protective gear. Remove from area of exposure. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Keep victim warm. Get immediate medical attention. To prevent aspiration, keep head below knees.

Ingestion: Small amounts which accidentally enter mouth should be rinsed out until taste of it is gone. Do not induce vomiting. Do not give liquids. Obtain emergency medical attention.

## Section 5. Fire-fighting measures

Extinguishing media: Carbon Dioxide, Dry Chemical, Foam, Water Fog

Unusual Fire and Explosion Hazards: Flammable liquid and vapor. Vapors can travel to a source of ignition and flash back. Empty containers retain product residue (liquid and/or vapor) and can be



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dangerous. DO NOT pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. Also, do not reuse container without commercial cleaning or reconditioning. Closed container may explode under extreme heat.

Special Firefighting Procedures:

As in any fire, wear self-contained breathing apparatus pressure-demand (MSHA/NIOSH approved or equivalent) and full protective gear. Evacuate all unnecessary personnel. Shut down motors, pumps, electrical service and eliminates all sources of ignition. Do not use water. Water spray to cool containers or protect personnel. Use with caution.

## Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Steps to be Taken in Case Material is Release or Spilled:

Wear appropriate personal protective equipment (See Exposure Controls / Personal Protection Section). Eliminate all ignition sources. Evacuate unnecessary personnel. Prevent additional discharge of material if able to do so safely. Do not touch or walk through spilled material. Avoid runoff into storm sewers and ditches which lead to waterways. Ventilate spill area. Stay upwind of spill. Do not apply water to the leak. Water fog may be used to suppress vapors. Collect spilled materials for disposal. Use only non-combustible material for clean-up. Use clean, not-sparking tools to collect absorbed materials. Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container. Recover by pumping (use an explosion proof or hand pump). Pump and free liquid into a closed but not sealed container to allow for the escape of any CO<sub>2</sub> that forms. Sealing the container may lead to rupture as any contaminated isocyanate reacts. Wash contaminated area with large amounts of water.

## Section 7. Handling and storage

Precautions for safe handling:

Use only in a well ventilated area. Avoid breathing vapors, fumes or mist. Avoid contact with eyes, skin and clothing. Material accumulates static charge (ignition source). Ground and bond containers with transferring material. Use spark-proof tools and explosion proof equipment. Always open container slowly to allow excess pressure to vent. After opening, purge container with nitrogen before reclosing. Follow all MSDS/label precautions even after containers are emptied because they may retain product residues.

Conditions for safe storage, including any incompatibilities:

Keep away from heat, spark and flame. Store containers in a cool, well ventilated place. Keep container closed when not in use. Storage under nitrogen atmosphere is recommended. Material reacts with water. Dike storage containers to contain 110% of tank volume. Vent indoor tanks to an outside location so escaping vapors will not contaminate any work area.

## Section 8. Exposure controls / personal protection

Control parameters  
Occupational Exposure Limits:

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Components	ACGHI TLV-TWA	ACGHI-TLV STEL	OSHA PEL-TWA	OSHA PEL-CEILING
Parachlorobenzotrifluoride	N.D.	N.D.	N.D.	N.D.
HDI homopolymer	N.D.	N.D.	N.D.	N.D.

## Personal Protection:

Respiratory Protection:	NIOSH/MSHA approved respirators may be necessary if airborne concentrations are expected to exceed exposure limits.
Skin Protection:	Wear impervious gloves to prevent contact with skin. Wear long sleeves when contact is likely to occur. Wear protective gear as needed – apron, suit, boots.
Eye/face Protection:	Use chemical splash goggles and face shield (ANSI Z87.1 or approved equivalent).
Other Protective Equipment:	Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.
Hygienic Practices:	Do not eat, drink, or smoke in areas where this material is used. Avoid breathing vapors. Remove contaminated clothing and wash before reuse. Wash thoroughly after handling. Wash hands before eating.

## Section 9. Physical & Chemical Properties

Appearance:	Clear liquid
Physical state:	Liquid
Odor:	Typical
Odor Threshold:	Not Available
Density, g/cm <sup>3</sup> :	1.241
pH:	Not available
Freeze Point, F°:	Not available
Viscosity:	Not available
Solubility in Water:	Partial
Explosive Limits, vol. %:	Not available
Boiling Range, F°:	282 - 428
Flash Point, F°:	120
Evaporation rate:	Not Available
Auto-ignition Temp, F°:	Not Available
Vapor pressure:	Not Available
Vapor density:	Not Available
Volatile Organic Compounds (VOCs) g/l:	0

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## Section 10. Chemical stability & reactivity information

Chemical stability: No Information

Hazardous Polymerization: No Information

Conditions to avoid: Avoid impact, friction, heat, sparks, flame and source of ignition. Avoid static discharge. Avoid humidity.

Incompatible materials: Avoid contact with moisture and/or water. Prevent contact with strong oxidizing agents. Keep away from strong bases. Avoid contact with amines. Keep away from acids. Avoid contact with alcohols.

Hazardous decomposition products: Toxic gases/fumes and given off during burning or thermal decomposition. During combustion carbon monoxide may be formed. During combustion carbon dioxide may be formed. At decomposition temperature, chlorine gas may be emitted. Decomposition releases nitrogen oxides. May release hydrogen chloride under fire conditions. At decomposition temperature, fluorine gas may be emitted.

## Section 11. Toxicological information

### Information on toxicological effects

Effects of Overexposure – Inhalation: Harmful if inhaled. May be irritating to the respiratory system. Certain individuals will develop sensitization (chemical asthma) which will result in reactions at levels below the TLV. May cause dizziness and drowsiness.

Effects of Overexposure - Skin Contact: Causes skin irritation. Prolonged or repeated contact can result in defatting and drying of the skin which may result in skin irritation and dermatitis (rash). Personnel with pre-existing skin disorders should avoid contact with this product.

Effects of Overexposure – Eye Contact: Causes serious irritation to eyes. May cause tearing, redness and discomfort.

Effects of Overexposure – Ingestion: Irritating to mouth, throat, and stomach. Ingestion may cause gastrointestinal tract irritation. Overexposure may cause nausea, diarrhea, and/or vomiting.

Effects of Overexposure – Chronic Hazards: Overexposure may cause nervous system damage. Overexposure may cause kidney damage. May cause liver disorder (e.g., edema, proteinuria) and damage. Significant exposure to this chemical may adversely affect people with chronic disease of the respiratory system, skin, and/or eyes.

Primary Route(s) of Entry: Eye contact, Ingestion, Inhalation, Skin contact

Acute Toxicity Values: The acute effects of this product have not been tested. Data on individual components are tabulated below:

Name according to EEC :	<u>Cas Number</u>	<u>Oral LD50, mg/kg</u>	<u>Dermal LD50, mg/kg</u>	<u>Vapor LC50, mg/L</u>
Parachlorobenzotrifluoride	98-56-6	6,800.0	> 2,700.0	33.08
HDI homopolymer	28182-81-2	>5,000	N.D.	N.D.

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## Section 12. Ecological information

### Toxicity

#### Acute toxicity

##### Fish

Product: Not available

Specified substances: Not available

##### Aquatic invertebrates

Product: Not available

#### Chronic toxicity

##### Fish

Product: Not available

##### Aquatic invertebrates

Product: Not available

##### Toxicity to aquatic plants

Product: Not available

Specified substances: Not available

### Persistence and degradability

#### Biodegradation

Product: Not available

Specified substances: Not available

#### Biological Oxygen Demand

Product: Not available

Specified substances: Not available

#### Chemical Oxygen Demand

Product: Not available

Specified substances: Not available

#### BOD/COD ratio:

Not available

#### Bioaccumulative potential:

Not available

#### Mobility in soil:

Not available

#### Results of PBT and vPvB assessment:

Not available

#### Other adverse effects:

Not available

## Section 13. Disposal considerations

Disposal methods: Dispose of waste in accordance with all local, state and federal regulations.

## Section 14. Transport information

### DOT

Basic shipping requirements:

UN number: UN1866

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Proper shipping name: Resin Solution  
Hazard class: Flammable Liquid  
Labels required: 3  
Additional information:  
Packaging exceptions: 150  
Packaging non bulk: 173  
Packaging bulk: 242

IATA

Basic shipping requirements:  
UN Number: 1866  
Proper shipping name: Resin Solution  
Hazard class: 3  
Packing group: III

## Section 15. Regulatory information

### US federal regulations

OSHA: This product is hazardous according to OSHA 29 CFR 1910.1200

SARA Title III Section 313 – Toxic Chemical: Listed Substance: 11,6-Hexamethylene Diisocyanate, CAS 822-06-0

SARA Title III Section 302 Extremely hazardous substances: None

SARA Title III Section 311/312 Hazard categories: Immediate (acute) health hazard  
Delayed (chronic) health hazard  
Fire hazard  
Reactive hazard

### Inventory Status

Country(s) or region	Inventory name	On inventory (yes/no)*	
Australia	Australian Inventory of Chemical Substances (AICS)		Yes
Canada	Domestic Substances List (DSL)		Yes
China	Inventory of Existing Chemical Substances in China (IECSC)		Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)		Yes
Japan	Inventory of Existing and New Chemical Substances (ENCS)		Yes
Korea	Existing Chemicals List (ECL)		Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)		Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory		Yes

\* A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

### State Regulations

California Proposition 65: Warning: This product does not contain a chemical known to the State of California to cause cancer.  
Warning: This product does not contain a chemical known to the State of California to cause birth defects or other reproductive harm.

Massachusetts RTK: None

New Jersey RTK: None

Pennsylvania RTK: None

## Section 16. Other Information

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Further information      HMIS® is a registered trade and service mark of the NPCA

HMIS® ratings:      Health: 2  
                            Flammability: 2  
                            Reactivity: 1 – Minimal Hazard  
                            Personal Protection: Yes

Disclaimer:      The information on this SDS was obtained from sources which we believe to be reliable. However, the information provided is without warranty, expressed or implied, regarding its correctness. Some of the information presented and conclusions drawn herein are from sources other than direct test data on the product itself. The information and recommendations are offered for the user's consideration and examination and should be used to make independent determination of the methods to safeguard workers and the environment. The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For these reasons we do not assume responsibility and expressly disclaim any liability for loss, damage, or expense arising out of or in any way connected with handling, storage, use or disposal of this product. It is the responsibility of the user to comply with all Federal, State and Local laws and regulations.

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