

Safety Data Sheet

acc. to OSHA HCS

Printing date 03/08/2016

Reviewed on 06/10/2015

1 Identification

- **Product identifier**
- **Trade name:** CATALYST FOR IPP PF-57
- **Article number:** 597C
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Instacoat Premium Products LLC
5920 Huron Ave.
Oscoda, MI 48750
- **Information department:** Product safety department
- **Emergency telephone number:**
EMERGENCY PHONE NUMBERS:
USA and Canada: 1-877 552-6724
International: 1-248 6729713

2 Hazard(s) identification

- **Classification of the substance or mixture**



Health hazard

- Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
 Muta. 1B H340 May cause genetic defects.
 Carc. 1B H350 May cause cancer.
 STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.



- Acute Tox. 4 H332 Harmful if inhaled.
 Skin Irrit. 2 H315 Causes skin irritation.
 Eye Irrit. 2A H319 Causes serious eye irritation.
 Skin Sens. 1 H317 May cause an allergic skin reaction.
 STOT SE 3 H335 May cause respiratory irritation.

- **Label elements**

- **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**



GHS07 GHS08

- **Signal word** Danger

- **Hazard-determining components of labeling:**

4,4'-methylenediphenyl diisocyanate
 Solvent naphtha (petroleum), light arom.
 diphenylmethanediisocyanate, isomeres and homologues
 o-(p-isocyanatobenzyl)phenyl isocyanate

- **Hazard statements**

H332 Harmful if inhaled.
 H315 Causes skin irritation.

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*H319 Causes serious eye irritation.**H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.**H317 May cause an allergic skin reaction.**H340 May cause genetic defects.**H350 May cause cancer.**H335 May cause respiratory irritation.**H373 May cause damage to organs through prolonged or repeated exposure.***· Precautionary statements***Keep out of reach from children.**P260 Do not breathe dust/fume/gas/mist/vapors/spray.**P284 [In case of inadequate ventilation] wear respiratory protection.**P280 Wear protective gloves.**P280 Wear eye protection / face protection.**P264 Wash thoroughly after handling.**P271 Use only outdoors or in a well-ventilated area.**P272 Contaminated work clothing must not be allowed out of the workplace.**P201 Obtain special instructions before use.**P202 Do not handle until all safety precautions have been read and understood.**P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.**P321 Specific treatment (see on this label).**P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER/doctor.**P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.**P312 Call a POISON CENTER/doctor if you feel unwell.**P363 Wash contaminated clothing before reuse.**P308+P313 IF exposed or concerned: Get medical advice/attention.**P333+P313 If skin irritation or rash occurs: Get medical advice/attention.**P337+P313 If eye irritation persists: Get medical advice/attention.**P314 Get medical advice/attention if you feel unwell.**P302+P352 IF ON SKIN: Wash with plenty of water.**P362+P364 Take off contaminated clothing and wash it before reuse.**P405 Store locked up.**P403+P233 Store in a well-ventilated place. Keep container tightly closed.**P501 Dispose of contents/container in accordance with local/regional/national/international regulations.***· Classification system:****· NFPA ratings (scale 0 - 4)**

Health = 2

Fire = 1

Reactivity = 0

· HMIS-ratings (scale 0 - 4)

Health = *2

Fire = 1

Reactivity = 0

· Other hazards**· Results of PBT and vPvB assessment****· PBT:** Not applicable.**· vPvB:** Not applicable.

3 Composition/information on ingredients

· Chemical characterization: Mixtures**· Description:** Mixture of the substances listed below with nonhazardous additions.

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· Dangerous components:		
101-68-8	4,4'-methylenediphenyl diisocyanate	10-30%%
9016-87-9	diphenylmethanediisocyanate, isomeres and homologues	10-30%%
5873-54-1	o-(p-isocyanatobenzyl)phenyl isocyanate	1-5%%
64742-95-6	Solvent naphtha (petroleum), light arom.	1-5%%
584-84-9	4-methyl-m-phenylene diisocyanate	0.1-1%%
91-08-7	2-methyl-m-phenylene diisocyanate	0.1-1%%
26447-40-5	methylenediphenyl diisocyanate	0.1-1%%

4 First-aid measures

- **Description of first aid measures**

- **General information:**

Immediately remove any clothing soiled by the product.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

- **After inhalation:**

Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.

- **After eye contact:**

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

- **After swallowing:** If symptoms persist consult doctor.

- **Information for doctor:**

- **Most important symptoms and effects, both acute and delayed** No further relevant information available.

- **Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**

- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.

- **Special hazards arising from the substance or mixture**

During heating or in case of fire poisonous gases are produced.

- **Advice for firefighters**

- **Protective equipment:** Mouth respiratory protective device.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Mount respiratory protective device.

- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.

- **Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

- **Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

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7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
 Ensure good ventilation/exhaustion at the workplace.
 Open and handle receptacle with care.
 Prevent formation of aerosols.
- **Information about protection against explosions and fires:** Keep respiratory protective device available.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**

- **Components with limit values that require monitoring at the workplace:**

101-68-8 4,4'-methylenediphenyl diisocyanate

<i>PEL</i>	Ceiling limit value: 0.2 mg/m ³ , 0.02 ppm
<i>REL</i>	Long-term value: 0.05 mg/m ³ , 0.005 ppm Ceiling limit value: 0.2* mg/m ³ , 0.02* ppm *10-min
<i>TLV</i>	Long-term value: 0.051 mg/m ³ , 0.005 ppm

584-84-9 4-methyl-m-phenylene diisocyanate

<i>PEL</i>	Ceiling limit value: 0.14 mg/m ³ , 0.02 ppm
<i>REL</i>	See Pocket Guide App. A
<i>TLV</i>	Short-term value: (0.14) NIC-0.035* mg/m ³ , (0.02)NIC- 0.005* ppm Long-term value: (0.036) NIC-0.007* mg/m ³ , (0.005) NIC-0.001* ppm *inh.fraction+vapour (SEN);NIC-Skin;A3;DSEN,RSEN

91-08-7 2-methyl-m-phenylene diisocyanate

<i>TLV</i>	Short-term value: (0.14) NIC-0.035* mg/m ³ , (0.02) NIC-0.005* ppm Long-term value: (0.036) NIC-0.007* mg/m ³ , (0.005) NIC-0.001* ppm *inh.fraction+vapour (SEN);NIC-Skin;A3;DSEN,RSEN
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- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
 Keep away from foodstuffs, beverages and feed.
 Immediately remove all soiled and contaminated clothing.
 Wash hands before breaks and at the end of work.
 Store protective clothing separately.
 Avoid contact with the eyes and skin.
- **Breathing equipment:**
 In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
 During mixing, handling and application: Splash goggles. Full protective clothing. Gloves (impervious).
 Wear suitable respiratory equipment. When air concentrations are not known (or above the TLV), an air-supplied respirator is required. Refer to OSHA Respiratory Protection Standard (29 CFR 1910.134). In presence of air movement, air-purifying (cartridge type) respirators are not the best protection but can be used, if you replaced them frequently. Change cartridges after 8h max or less due to their low warning properties. When in a confined space wear MSHA/NIOSH approved self-contained breathing apparatus or

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equivalent and full protective gear.

· **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:**



Tightly sealed goggles

9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

· Form:	Fluid
· Color:	Amber colored
· Odor:	Light
· Odor threshold:	Not determined.

· **pH-value:** Not determined.

· **Change in condition**

· Melting point/Melting range:	Undetermined.
· Boiling point/Boiling range:	190 °C (374 °F)

· **Flash point:** 111 °C (232 °F)

· **Flammability (solid, gaseous):** Not applicable.

· **Ignition temperature:** 400 °C (752 °F)

· **Decomposition temperature:** Not determined.

· **Auto igniting:** Product is not selfigniting.

· **Danger of explosion:** Product does not present an explosion hazard.

· **Explosion limits:**

· Lower:	0.4 Vol %
· Upper:	0.0 Vol %

· **Vapor pressure:** Not determined.

· **Density at 20 °C (68 °F):** 1.09 g/cm³ (9.096 lbs/gal)

· **Relative density** Not determined.

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|---|--|
| · Vapor density | Not determined. |
| · Evaporation rate | Not determined. |
| · Solubility in / Miscibility with Water: | Not miscible or difficult to mix. |
| · Partition coefficient (n-octanol/water): | Not determined. |
| · Viscosity: | |
| · Dynamic: | Not determined. |
| · Kinematic: | Not determined. |
| · Other information | No further relevant information available. |

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

101-68-8 4,4'-methylenediphenyl diisocyanate

Oral	LD50	2200 mg/kg (mouse)
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64742-95-6 Solvent naphtha (petroleum), light arom.

Oral	LD50	>6800 mg/kg (rat)
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Dermal	LD50	>3400 mg/kg (rab)
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Inhalative	LC50/4 h	>10.2 mg/l (rat)
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584-84-9 4-methyl-m-phenylene diisocyanate

Oral	LD50	5800 mg/kg (rat)
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- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Irritating effect.
- **Sensitization:**
- Sensitization possible through inhalation.
- Sensitization possible through skin contact.
- **Additional toxicological information:**
- The product shows the following dangers according to internally approved calculation methods for preparations:
- Harmful
- Irritant
- The product can cause inheritable damage.
- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

101-68-8	4,4'-methylenediphenyl diisocyanate	3
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9016-87-9	diphenylmethanediisocyanate, isomeres and homologues	3
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· NTP (National Toxicology Program)		
584-84-9	4-methyl-m-phenylene diisocyanate	R
91-08-7	2-methyl-m-phenylene diisocyanate	R
· OSHA-Ca (Occupational Safety & Health Administration)		
None of the ingredients is listed.		

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
*Water hazard class 2 (Self-assessment): hazardous for water
 Do not allow product to reach ground water, water course or sewage system.
 Danger to drinking water if even small quantities leak into the ground.*
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

· UN-Number	
· DOT, ADR, ADN, IMDG, IATA	Void
· UN proper shipping name	
· DOT, ADR, ADN, IMDG, IATA	Void
· Transport hazard class(es)	
· DOT, ADR, ADN, IMDG, IATA	
· Class	Void
· Packing group	
· DOT, ADR, IMDG, IATA	Void
· Environmental hazards:	
· Marine pollutant:	No
· Special precautions for user	Not applicable.
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.

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· UN "Model Regulation": Void

15 Regulatory information

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

· Sara

· Section 355 (extremely hazardous substances):

584-84-9 4-methyl-m-phenylene diisocyanate

91-08-7 2-methyl-m-phenylene diisocyanate

· Section 313 (Specific toxic chemical listings):

101-68-8 4,4'-methylenediphenyl diisocyanate

9016-87-9 diphenylmethanediisocyanate, isomeres and homologues

584-84-9 4-methyl-m-phenylene diisocyanate

91-08-7 2-methyl-m-phenylene diisocyanate

· TSCA (Toxic Substances Control Act):

All ingredients are listed.

· Proposition 65

· Chemicals known to cause cancer:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

· Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

· Carcinogenic categories

· EPA (Environmental Protection Agency)

101-68-8 4,4'-methylenediphenyl diisocyanate

D, CBD

9016-87-9 diphenylmethanediisocyanate, isomeres and homologues

CBD

· TLV (Threshold Limit Value established by ACGIH)

4-methyl-m-phenylene diisocyanate

(A4)

2-methyl-m-phenylene diisocyanate

(A4)

· NIOSH-Ca (National Institute for Occupational Safety and Health)

584-84-9 4-methyl-m-phenylene diisocyanate

91-08-7 2-methyl-m-phenylene diisocyanate

· GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

· Hazard pictograms



GHS07 GHS08

· Signal word Danger

· Hazard-determining components of labeling:

4,4'-methylenediphenyl diisocyanate

Solvent naphtha (petroleum), light arom.

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diphenylmethanediisocyanate, isomeres and homologues

o-(*p*-isocyanatobenzyl)phenyl isocyanate

· **Hazard statements**

H332 Harmful if inhaled.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H317 May cause an allergic skin reaction.

H340 May cause genetic defects.

H350 May cause cancer.

H335 May cause respiratory irritation.

H373 May cause damage to organs through prolonged or repeated exposure.

· **Precautionary statements**

P260 Do not breathe dust/fume/gas/mist/vapors/spray.

P284 [In case of inadequate ventilation] wear respiratory protection.

P280 Wear protective gloves.

P280 Wear eye protection / face protection.

P264 Wash thoroughly after handling.

P271 Use only outdoors or in a well-ventilated area.

P272 Contaminated work clothing must not be allowed out of the workplace.

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P321 Specific treatment (see on this label).

P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER/doctor.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P312 Call a POISON CENTER/doctor if you feel unwell.

P363 Wash contaminated clothing before reuse.

P308+P313 IF exposed or concerned: Get medical advice/attention.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

P337+P313 If eye irritation persists: Get medical advice/attention.

P314 Get medical advice/attention if you feel unwell.

P302+P352 IF ON SKIN: Wash with plenty of water.

P362+P364 Take off contaminated clothing and wash it before reuse.

P405 Store locked up.

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

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

· **National regulations:**

· **Additional classification according to Decree on Hazardous Materials:**

Carcinogenic hazardous material group III (dangerous).

· **Information about limitation of use:**

Workers are not allowed to be exposed to the hazardous carcinogenic materials contained in this preparation.

Exceptions can be made by the authorities in certain cases.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Department issuing SDS:** Product safety department

· **Contact:** HS REG.DEPART.REG.SS

· **Date of preparation / last revision** 03/08/2016 / -

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

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IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
ACGIH: American Conference of Governmental Industrial Hygienists
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMS: Hazardous Materials Identification System (USA)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
NIOSH: National Institute for Occupational Safety
OSHA: Occupational Safety & Health
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
Acute Tox. 4: Acute toxicity, Hazard Category 4
Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A
Resp. Sens. 1: Sensitisation - Respirat., Hazard Category 1
Skin Sens. 1: Sensitisation - Skin, Hazard Category 1
Muta. 1B: Germ cell mutagenicity, Hazard Category 1B
Carc. 1B: Carcinogenicity, Hazard Category 1B
STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3
STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2

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