Technical Data Sheet

Pyra-Sil™ CC-637

incure™
ADHESIVES, EPOXIES AND COATINGS

One Part, Fast Cure RTV Silicone Peel-able Sealant/Mask

PRODUCT DESCRIPTION

Incure Pyra-Sil™ CC637 is a one-part, self-levelling, clean peel-able coating for temporary protection applications. Ideal for applications with working (pot-life) of less than 8 mins, it cures to a Tack-Free surface in 15 mins and full cure in 72 hrs. Provides flexible yet durable protection to resist weathering, moisture, damage due to UV rays and high temperatures in sandblasting operations, machining and plating operations. Peels off clean on plastics, wood and metals. Incure CC-637can be coated on various substrates and is designed for both manual brushing and high volume automatic dispensing systems.

CURE SCHEDULE

Primary UV Cure, sec	N.A.
Secondary Moisture Cure, hr	24

UNCURED PROPERTIES

Chemical Type	Oxime Cure
Appearance	Translucent
Viscosity, cP (rpm)	35,000 - 45,000
Density, g/ml	0.99

CURED PROPERTIES

Hardness, Shore	A15 to A25
Chemical Resistance	Good
Service Temperature	-45°C to 260°C (-49°F to 500°F)
Peel Strength, PSI (ASTM D790)	N.A.
Tensile Shear, PSI (ASTM D1002-94)	120
Elongation, %	110

ADVANTAGES

Incure Pyra-Sil™ one-part moisture cure silicones cure at room temperature with no curing ovens and the energy costs. Adheres to many metals, ceramics, glass, laminates and plastics. Surface cures within 5 mins and 95% strength acheived from 24 to 72hrs. Heat < 60°C (140°F) may be used to accelerate cure. Excellent physical and electrical properties over a broad range of operating conditions.

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RoHS COMPLIANT | Pb LEAD FREE | HF HALOGEN FREE

CURE SCHEDULE (Applicable to UV-Cure Silicones Only)

Product is best cured with a high intensity lamp, preferably > 200mW/cm² of UVA. UV exposure starts the curing process and firm up the material with a skin layer, with moisture cure taking over to complete the full curing process. See Cure-Depth vs Time guide.

CURE DEPTH VS TIME GUIDE

Total Energy (J/cm²)	After 24-hr*	After 48-hr*	After 168-hr*
2,000mJ/cm²	4.8mm	7.9mm	12.5mm
3,000mJ/cm²	5.0mm	8.1mm	12.5mm
4,000mJ/cm²	5.1mm	8.3mm	12.5mm

*Guide based on 55% Relative Humidity, 25°C

SURFACE PREPARATION

All bonding surfaces must be free from contaminants such as grease, lose particles, oils, corrosive chemical stains etc. Rough or porous material such as metal castings should be baked at high temperature to burn off any embedded contaminants, especially trapped oils and chemicals. Smooth metal surfaces should ideally be abrasive blasted to 0.25mm (0.001") for optimum results.

APPLICATION PROCEDURES

Prepared surface can be coated simply by brushing method, dipping or dispensing (for selective area coating). Products with viscosities lower than 500cP are suitable for use on spraying systems.

STORAGE AND PREPARATION FOR USE

This product carries shelf-life of 6 months in the original, unopened packaging. For optimum results, all Pyra–Sil™ products should be stored in original containers below 22°C (72°F) in a cool dry place. Sealed containers in original packaging are guaranteed for 6 months when stored in the recommended temperature.

NOTE

Material Safety Data Sheet (MSDS)

Released On: Jun 12, 2014 (00)
Reprinted On: Nov 22, 2021

Section 1 - Product and Company Identification

Product Name	Product Code
Pyra-Sil™	CC-637

DECLARATION: The information furnished here is to the best of our knowledge. INCURE Incorporation does not assume any liability whatsoever for the accuracy or completeness of information contained herein. Final determination of suitability of any material is the sole responsibility of the end-user. All materials may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exists.

Company / Supplier Name	Incure Inc. 1 Hartford Square, Box 16 West, Suite C-3 West Gate, Door 18, New Britain, CT 06052, USA	Incure Adhesives Manufacturing Pte Ltd 33 Ubi Avenue 3 #04-23, Vertex Tower B Singapore 408868
Emergency Contact Information:	Tel: (860) 748-2979	Tel: (65) 62702188
Product Category	Oxime Cure	

Section 2 - Hazards Identification

GHS Pictogram

Signal Word: GHS07 Warning

GHS Hazard Phrases:	H315	Causes skin irritation.
	H317	May cause an allergic skin reaction.
	H319	Causes serious eye irritation.
	H335	May cause respiratory irritation.
	H412	Harmful to aquatic life with long lasting effects.
GHS Precautionary Phrases:	P271	Use in a well-ventilated area.
	P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
	P102	Keep out of reach of children.
	P262	Do not get in eyes, on skin or on clothing.
GHS Response Phrases:	P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	P333+P313	If skin irritation or rash occurs: Get medical advice/ attention.
	P234	Keep only in original container.
GHS Storage and Disposal Phrases:	P501	Dispose of contents/ container in accordance with local regulations.
GHS Classification:	Physical and Chemical Hazards	Not Classified.
	Human Health / Environment	H315, H317, H319, H335 / H412

Section 3 - Material Composition / Safety Data on Product

CAS No.	% Composition	Description	GHS Classification
67762-94-1	95 - 99	Vinyl Silicone Polymer	H315, H319, H335
2224-33-1	1 - 5	Vinyl Oximino Silane	H315, H319, H335
63148-62-9	0 - 5	Dimethylpoly Siloxane	H315, H319, H335
69013-23-6	0 - 5	Methyl Hydrogen Polysiloxane	H315, H319, H335
68478-92-2	0 - 5	Platinum(0)-1,3-divinyl-1,1,3,3-tetramethyldisiloxane Complex	H315, H319, H335
4253-34-3	0 - 5	Methyltriacet Oxysilane	H315, H319, H335
9044-80-8	0 - 5	Tetraethoxysilane	H315, H319, H335
68611-44-9	0 - 5	Silane, Dichlorodiemthyl	H315, H319, H335
14808-60-7	0 - 5	Core-Shell Monodispersed Magnetic Silica Microspheres	H315, H319, H335
Proprietary	0 - 5	Trade Secret Component	H315, H319, H335
7473-98-5	0 - 5	2-Hydroxy 2-Methylpropiophenone	H315, H319, H335
1067-33-0	0 - 5	Dibutyltin Diacetate	H315, H319, H335
82985-35-1	0 - 5	Bis[3-(trimethoxysilyl)propyl]amine	H315, H319, H335

Section 4 - First-Aid Measures

After Inhalation:	Provide ample fresh air. Provide artificial respiration, give oxygen if experience difficulties in breathing. Consult doctor if symptoms persists.
After eye contact:	Rinse eye for up to 15 minutes under running water. If symptoms persists, consult an eye doctor.
After skin contact:	Immediately wash with water and soap thoroughly. Remove contaminated clothings.
After Swallowing:	Seek medical attention and treatment.

Section 5 - Fire-Fighting Measures

Suitable Extinguishing Agents	Water spray, dry chemical or carbon dioxide will be useful. Fight larger fires with water spray or alcohol resistant foam.
Protective Equipment	Mouth respiratory protective device (face mask) is necessary in the event of fire.
Unusual fire or Explosion Hazards	Uncontrolled polymerization may occur at high temperatures due to explosions or rupture. Toxic fumes and irritating organic vapors may be present.

Section 6 - Accidental Release Measures

Person-related Safety Precautions	Not Required
Measures for environmental protection:	Inform respective authority in case of seepage into water course or sewage system. Do not allow to enter sewers or waterways.
Measures for cleaning / collecting:	Soak up with absorbent inert materials (sand, silica gel, sawdust). Dike area to prevent spreading. Dispose of as a chemical waste in accordance with current local, state and federal regulations. Please refer to Section 8 prior to clean-up.

Section 7 - Handling and Storage

Information for safe handling	Keep away from heat and direct sunlight. Use product with good ventilation/exhaust installed at the workplace.	Requirements to be met by storerooms	Avoid exposure to sunlight.
		Information about storage in one common storage facility	Not required. Keep bottle cap / receptacle tightly sealed.
Information about protection against explosions and fire	No special measures required	Maximum Storage Temperature	< 35°C (95°F)

Section 8 - Exposure Controls and Personal Protection

Additional information about design of technical systems	No additional data, please refer to Section 7
Components with limit values that require monitoring	All solid powders are fully encapsulated in the uncured and cured state and are not hazardous.
General protective and hygienic measures	Keep away from foodstuffs, beverages such as drinking water. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Avoid contact with eyes and skin.

Breathing equipment	Use respiratory filter device in case of brief exposure resulting in discomfort. For prolonged exposure, use respiratory protective device that is independent of circulating air.
Protection of hands	Use protective impermeable gloves that are resistant to the product. Selection of glove material should consider penetration times, rates of diffusion and degradation.
Protection of eyes	Use tightly sealed googles for best protection in a poorly ventilated area.

Section 9 - Physical and Chemical Properties

Form / Color / Odor	Fluid / According to Technical Data Sheet / Characteristics	Flash Point	> 315°C
Change in condition beyond melting point	N.A.	Auto-Igniting	N.A.
Change in condition beyond boiling point	N.A.	Danger of Explosion	None

Section 10 - Stability and Reactivity

Thermal decomposition / conditions to be avoided	No decomposition if used according to specification
Incompatible materials	Strong oxidizing and reducing agents. Strong acids and bases. Free radical initiators.
Dangerous reactions	None
Dangerous products of decompositions	Some Oxides of following chemicals may be formed - Carbon, Nitrogen, Silicon, Phosphorous, Amines.
Additional Information	Smoke and toxic fumes may evolve as a result of uncontrolled exothermic chemical reactions caused by large masses of materials interacting with curing agents (peroxides, amines, etc) and / or exposure to UV light / sunlight.

Section 11 - Toxicological Information

Acute Toxicity - LD/LC50 values that are relevant for classification	Oral LD50	Dermal LD50	Inhalative LD50/4hr

Primary irritant effect on skin/eye	No irritant effect on skin, sensitization effect possible. Irritating effect on eye.
Additional toxicological information	Product shows following dangers according to internally approved calculation methods of preparations: Harmful, Irritant.

Section 12 - Ecological Information

Ecotoxical Effects: Aquatic Toxicity

Remarks Harmful for aquatic organisms

General Notes: Water hazard class 2 (self-assessment) - hazardous for water. Do not allow produce tot reach ground water, water course or sewage system, even in small quantities. Danger to drinking water if even small quantities leak into the ground.

Section 13 - Disposal Considerations

Disposal of Product	Must not be disposed with household garbage and do not allow product to reach sewage system.
Disposal of Uncleaned Packagings	Disposal must be made according to official regulations

Section 14 - Transport Information

DOT Regulations: -

Hazard Class: -

Land Transport ADR/RID (cross-border)		Air Transport ICAO-TI and IATA-DGR		Maritime Transport IMDG	
ADR/RID Class	Not Restricted	ICAO/IATA Class	Not Restricted	IMDG Class	Not Restricted
Danger Code		Label		Label	
UN Number		UN Number		UN Number	
Packaging Group		Packaging Group		Packaging Group	
Label		Label		Label	
Description of Goods		Description of Goods		Marine Pollutant	

Section 15 - Regulations

Section 355 (Extremely hazardous substances)	None
Section 313 (Specific toxic chemical listings)	None
TSCA (Toxic Substances Control Act)	All ingredients are listed
California Proposition 65	No California Proposition 65 listed chemicals are known to be present.
Chemicals known to cause reproductive toxicity for females	None
Chemicals known to cause reproductive toxicity for males	None
Chemicals known to cause developmental toxicity	None
Cancerogenity Categories	EPA - None , IARC - None , NTP - None , TLV - None , NIOSH-Ca - None , OSHA-Ca - None
Product related hazard information	Product has been classified and marked in accordance with directives on hazardous materials
Hazard Symbol	Harmful - Dangerous for the environment
Hazard-determining components of labelling	None
Risk phrases	Harmful by inhalation. Irritating to eyes, respiratory system and skin. Taxi to aquatic organisms.
Safety phrases	Keep container in a well-ventilated place. Do not breath gas/fumes/vapor/spray. In cases of contact with eyes, rinse immediately with plenty of water and seek medical advice. Use appropriate container to avoid environmental contamination.

Section 16 - Other Information

Information provided is based on our best and present knowledge. This, however, shall not constitute a guarantee for any specific product features and shall not establish a legally said contractual relationship.

Department issuing MSDS	Incure Inc. / Incure Adhesives Manufacturing Pte Ltd
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