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SAFETY DATA SHEET

FOR INDUSTRIAL USE ONLY

GE5070

Section 1. Product and company identification

Product name		: GE5070
Manufacturer/Importer/ Distributor Information	:	Momentive Performance Materials LLC 260 Hudson River Road Waterford NY 12188
Contact person	:	4information@momentive.com
Telephone	:	General information +1-800-295-2392
Emergency telephone number Supplier	:	CHEMTREC 1-800-424-9300

Section 2. Hazards identification

Classification of the substance or mixture	:	SKIN CORROSION/IRRITATION - Category 2 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A SKIN SENSITIZATION - Category 1 TOXIC TO REPRODUCTION - Category 1B TOXIC TO REPRODUCTION - Category 1B
GHS label elements		
Hazard pictograms	:	
Signal word Hazard statements <u>Precautionary statements</u>	:	Danger H315 Causes skin irritation. H319 Causes serious eye irritation. H317 May cause an allergic skin reaction. H360F May damage fertility. H360 May damage the unborn child.
General	:	Not applicable.
Prevention	:	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Wear protective gloves. Wear eye or face protection.

		Avoid breathing dust. Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.
Response	:	IF exposed or concerned: Get medical attention. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.
Storage	:	Store locked up.
Disposal	:	P501Dispose of contents and container in accordance with all local, regional, national and international regulations.
Other hazards which do not result in classification	:	Uncured product is irritating to eyes, skin, and respiratory system. Generates methanol during cure. Generates ammonia during cure.

Section 3. Composition/information on ingredients

Substance/mixture
Chemical name

MixtureNot available

Hazardous ingredients	% by weight	CAS number
Distillates (petroleum), hydrotreated middle	5 - 10	64742-46-7
Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl)-	1 - 5	999-97-3
Tin, dibutylbis(2,4-pentanedionatokappa.O2,.kappa.O4)-, (OC-6-11)-	0.1 - 1	22673-19-4

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

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary 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. Get medical attention.
Inhalation	:	Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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 unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such

Skin contact		as a collar, tie, belt or waistband. Wash with plenty of soap and water. Remove contaminated clothing
Skin contact	:	and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or
		symptoms, avoid further exposure. Wash clothing before reuse.
		Clean shoes thoroughly before reuse.
Ingestion	:	Wash out mouth with water. Remove dentures if any. Remove
		victim to fresh air and keep at rest in a position comfortable for
		breathing. If material has been swallowed and the exposed person is
		conscious, give small quantities of water to drink. Stop if the
		exposed person feels sick as vomiting may be dangerous. Do not
		induce vomiting unless directed to do so by medical personnel. If
		vomiting occurs, the head should be kept low so that vomit does not
		enter the lungs. Get medical attention. 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.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician	:	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Specific treatments	:	No specific treatment.
Protection of first aid personnel	:	No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are 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. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media Unsuitable extinguishing media	:	Use dry chemical, CO2, alcohol-resistant foam or water spray (fog). water jet
Specific hazards arising from the chemical	:	No specific fire or explosion hazard.
Hazardous thermal decomposition products	:	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides metal oxide/oxides Measurements at temperatures above 150°C in presence of air (oxygen) have shown that small amounts of formaldehyde are formed due to oxidative degradation.
Special protective actions for fire- fighters Special protective equipment for	:	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Use water spray to keep fire-exposed containers cool. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain. Fire-fighters should wear appropriate protective equipment and self-
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fire-fighters

contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.Firefighters must wear NIOSH/MSHA approved positive pressure self-contained breathing apparatus with full face mask and full protective clothing.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel For emergency responders	:	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment. If specialised clothing is required to deal with the spillage, take note
for emergency responders	•	of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
Environmental precautions Methods and material for containme	: nt ai	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).
Small spill	:	Move containers from spill area. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see section 1 of SDS for emergency contact information and section 13 of SDS for waste disposal.
Large spill	:	Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see section 1 of SDS for emergency contact information and section 13 of SDS for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures Advice on general occupational hygiene	:	Put on appropriate personal protective equipment (see section 8 of SDS). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Use only with adequate ventilation. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. 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. See also Section 8 for additional information on hygiene measures.
Conditions for safe storage,	:	Store in accordance with local regulations. Store in original

including any incompatibilities	container protected from direct sunlight in a dry, cool and well- ventilated area, away from incompatible materials (see section 10 of SDS) and food and drink. Store locked up. 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

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Occupational exposure limits		
None. Appropriate engineering controls	:	If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.
Environmental exposure controls	:	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.
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. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
Eye/face protection	:	Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.
Skin protection		
Hand protection	:	Chemical-resistant, impervious 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. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
Body protection	:	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.
Other 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, particulate filter respirator complying with an

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approved standard if a risk assessment indicates 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. If exposure limits are exceeded or respiratory irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Supplied air respirators may be required for non-routine or emergency situations. Respiratory protection must be provided in accordance with OSHA regulations (see 29CFR 1910.134).

Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary.

Section 9. Physical and chemical properties

Appearance

Physical state Color	: Solid : White
Odor Odor threshold pH	 ammonia Not available Not applicable.
Melting point Boiling point Flash point	 Not available Not available > 94 °C (201.20 °F) (Estimated.) Product does not flash below 93.3C (200F) during test; no actual flash point >93.3 C was determined.
Burning time Burning rate Evaporation rate Flammability (solid, gas) Lower and upper explosive (flammable) limits Vapor pressure	 Not available Not available Not available Not available Lower: Not available Upper: Not available Not applicable.
Vapor density Relative density	Not available1.02
Solubility	: PARTIAL IN TOLUENE
Solubility in water	: Insoluble
Partition coefficient: n- octanol/water	: Not available
Auto-ignition temperature	: Not available
Decomposition temperature	: Not available
SADT	: Not available
Viscosity	: Dynamic: Not available
1 7 - 1 - 4 ⁴ 1	Kinematic: Not available
Volatile organic content	: 2.2 % (w/w) 27 g/l

Other information

No additional information.

Section 10. Stability and reactivity

Reactivity	:	Stable under normal conditions.
Chemical stability	:	The product is stable.
Possibility of hazardous reactions	:	Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	:	No specific data.
Incompatible materials	:	No specific data.
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	:	Not determined		
Irritation/Corrosion				
Conclusion/Summary Skin		Not determined		
eves	-	Not determined		
Respiratory	-	Not determined		
Respiratory	•	Not determined		
Sensitization				
Conclusion/Summary Skin	:	Not determined		
Respiratory	÷.	Not determined		
Respiratory	•	i tot determined		
<u>Mutagenicity</u>				
Conclusion/Summary	:	Not determined		
Carcinogenicity				
Conclusion/Summary	:	Not determined		
<u>Reproductive toxicity</u>				
Conclusion/Summary	:	Not determined		
<u>Teratogenicity</u>				
Conclusion/Summary	:	Not determined		

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
Tin, dibutylbis(2,4-	Category 1		thymus
pentanedionato-			
.kappa.O2,.kappa.O4)-, (OC-6-			
11)-			

Specific target organ toxicity (repeated exposure)

Information on the likely routes of : Not available

Product/ingredient name	Category	Route of exposure	Target organs
Tin, dibutylbis(2,4-	Category 1		thymus
pentanedionato-			
.kappa.O2,.kappa.O4)-, (OC-6-			
11)-			

Aspiration hazard

Product/ingredient name	Result
Distillates (petroleum), hydrotreated middle	ASPIRATION HAZARD - Category 1ASPIRATION
	HAZARD - Category 1ASPIRATION HAZARD -
	Category 1

Eye contact Inhalation	Causes serious eye irritation.Exposure to decomposition products may cause a health hazard.
	Serious effects may be delayed following exposure.
Skin contact	: Causes skin irritation. May cause an allergic skin reaction.
Ingestion	: Irritating to mouth, throat and stomach.
Symptoms related to the physi	cal, chemical and toxicological characteristics
Eye contact	: Adverse symptoms may include the following:
	pain or irritation
	watering redness
Inhalation	
matation	: Adverse symptoms may include the following: reduced fetal weight
	increase in fetal deaths
	skeletal malformations
Skin contact	: Adverse symptoms may include the following:
	irritation
	redness
	reduced fetal weight
	increase in fetal deaths
	skeletal malformations
Ingestion	: Adverse symptoms may include the following:
	reduced fetal weight
	increase in fetal deaths
	skeletal malformations
	and also chronic effects from short and long term exposure

Potential immediate effects Potential delayed effects	:	Not available Not available
Long term exposure		
Potential immediate effects	:	Not available
Potential delayed effects	:	Not available
Potential chronic health effects		
Conclusion/Summary	:	Not determined

General

General	:	Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
Carcinogenicity	:	No known significant effects or critical hazards.
Mutagenicity	:	No known significant effects or critical hazards.
Teratogenicity	:	May damage the unborn child.
Developmental effects	:	No known significant effects or critical hazards.
Fertility effects	:	May damage fertility.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Oral	18,996.2 mg/kg
Route	ATE value
Dermal	11,397.7 mg/kg
Route	ATE value
Inhalation (vapors)	417.9 mg/l

Section 12. Ecological information

Ecotoxicity

Conclusion/Summary	:	Not available
Persistence/degradability		
Conclusion/Summary	:	Not available

Bioaccumulative potential

Product/ingredient name	Species	Exposure	LogPow	BCF	Potential
Silanamine, 1,1,1-trimethyl-N-			1.19	-	low
(trimethylsilyl)-					

Mobility in soil

Soil/water partition coefficient	:	Not available
(KOC)		
Other adverse effects	:	No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental

:

protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. See Section 8 for information on appropriate personal protective equipment.

Section 14. Transport information

Special precautions for user	:	This product is not regarded as dangerous goods according to the national and international regulations on the transport of dangerous
		goods.

15.Regulatory information

United States

U.S. Federal regulations	 United States - TSCA 12(b) - Chemical export notification: None required. United States - TSCA 5(a)2 - Final significant new use rules: Not listed United States - TSCA 5(a)2 - Proposed significant new use rules: Not listed United States - TSCA 5(e) - Substances consent order: Not listed
SARA 311/312	
Classification	: Immediate (acute) health hazard Delayed (chronic) health hazard
<u>California Prop. 65:</u>	: WARNING: This product contains less than 1% of a chemical known to the State of California to cause birth defects or other reproductive harm.
<u>Canada</u> WHMIS (Canada)	: Class D-2A: Material causing other toxic effects (Very toxic).
International regulations	
International lists	 Australia inventory (AICS): All components are listed or exempted. Canada inventory: All components are listed or exempted. Japan inventory: Not determined. China inventory (IECSC): All components are listed or exempted. Korea inventory: All components are listed or exempted. New Zealand Inventory (NZIoC): All components are listed or exempted. Philippines inventory (PICCS): All components are listed or exempted.
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United States inventory (TSCA 8b): All components are listed or exempted. Taiwan inventory (CSNN): All components are listed or exempted.

Section 16. Other information

Label requirements		serious eye irritation. CAUSES SKIN IRRITATION. MAY BE	
Hazardous Material Information System III (U.S.A.) :			
Health		2	
Flammability		1	
Physical hazards		0	

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868. The customer is responsible for determining the PPE code for this material.

Full text of abbreviated H statements	:	Not applicable.
History		
Date of printing Date of issue/Date of revision Date of previous issue Version Prepared by Key to abbreviations	:::::::::::::::::::::::::::::::::::::::	10/05/2015 08/03/2015 04/10/2015 1.3 Product Safety Stewardship ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor GHS = Globally Harmonized System of Classification and Labelling of Chemicals IATA = International Air Transport Association IBC = Intermediate Bulk Container IMDG = Intermediate Bulk Container IMDG = International Maritime Dangerous Goods LogPow = logarithm of the octanol/water partition coefficient MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail UN = United Nations
References	:	Not available

Notice to reader

Unless otherwise specified in section 1, Momentive Products are intended for industrial application only. They are not intended for specific medical applications, neither for long-lasting (> 30 days) implantation into the human body, injected or directly ingested, nor for the manufacture of multiple usable contraceptives Keep out of the reach of children.

Further Information

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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