

1. Identification

ENDURIS LIQUID FLASHING

SAFETY DATA SHEET

Product identifier: ENDURIS LIQUID FLASHING

Other means of identification Synonyms:	On	e part RTV sealant
Recommended use and restriction on use Recommended use: Silicone Elastomer Restrictions on use: Not known.		
Manufacturer/Importer/Distr ibutor Information	:	Momentive Performance Materials LLC 260 Hudson River Road Waterford NY 12188
Contact person	:	commercial.services@momentive.com
Telephone	:	General information +1-800-295-2392
Emergency telephone number Supplier	:	CHEMTREC 1-800-424-9300

2. Hazard(s) identification

Hazard Classification

Health Hazards

Toxic to reproduction

Category 2

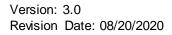
Unknown toxicity - Health

Acute toxicity, oral	0 %
Acute toxicity, dermal	0 %
Acute toxicity, inhalation, vapor	0 %
Acute toxicity, inhalation, dust or mist	0 %

Label Elements

Hazard Symbol:

SDS_US





MOMENTIVE

inventing possibilities

Signal Word:	Warning
Hazard Statement:	H361; Suspected of damaging fertility or the unborn child.
Precautionary Statements	
Prevention:	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required.
Response:	IF exposed or concerned: Get medical advice/attention.
Storage:	Store locked up.
Disposal:	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.
Substance(s) formed under the conditions of use:	Generates methanol during cure.

3. Composition/information on ingredients



Mixtures

Chemical Identity	CAS number	Content in percent (%)*	Notes
(1) CALCIUM CARBONATE	1317-65-3	20 - <50%	# This substance has workplace exposure limit(s).
Silanamine, 1,1,1-trimethyl-N- (trimethylsilyl) -, reaction products with ammonia, octamethylcyclotetrasiloxane and silica	68937-51-9	1 - <5%	No data available.
(1) TITANIUM DIOXIDE	13463-67-7	1 - <5%	# This substance has workplace exposure limit(s).
Titanium, Bis(ethyl acetoacetato)-diispropoxy	27858-32-8	1 - <5%	No data available.
Octadecanoic acid	57-11-4	0.1 - <1%	# This substance has workplace exposure limit(s).
Octamethylcyclotetrasiloxane	556-67-2	0.1 - <1%	# This substance has workplace exposure limit(s).

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

(1) The respirable particle(s) listed above are inextricably bound within the polymer matrix, and therefore does not present an inhalation hazard during normal use of this product. Tooling or machining of the cured product (sanding, cutting, milling) may release hazardous, respirable substances.

4. First-aid measures

General information:	No action shall be taken involving any personal risk or without suitable training.
Ingestion:	If swallowed, do NOT induce vomiting. Give a glass of water.
Inhalation:	If inhaled, remove to fresh air. If not breathing give artificial respiration using a barrier device. If breathing is difficult give oxygen. Get medical attention.
Skin Contact:	To clean from skin, remove completely with a dry cloth or paper towel, before washing with detergent and water. If skin irritation occurs: Get medical advice/attention.
Eye contact:	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.



Most important symptoms/effects, acute and delayed		
Symptoms:	No data available.	
Hazards:	No data available.	
Indication of immediate medical	attention and special treatment needed	
Treatment:	This product reacts with moisture in the acid contents of the stomach to form methanol. Treatment is symptomatic and supportive.	
5. Fire-fighting measures		
General Fire Hazards:	Use standard firefighting procedures and consider the hazards of other involved materials. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply.	
Suitable (and unsuitable) extinguishing media		
Suitable extinguishing media:	All standard extinguishing agents are suitable.	
Unsuitable extinguishing media:	Avoid water in straight hose stream; will scatter and spread fire.	
Specific hazards arising from the chemical:	In case of fire, carbon monoxide and carbon dioxide may be formed. Acute overexposure to the products of combustion may result in irritation of the respiratory tract. Reacts with water liberating small amounts of methanol. This material is reactive with water, but the reaction will not significantly increase the fire severity.	
Special protective equipment and precautions for firefighters		
Special fire fighting procedures:	Move container from fire area if it can be done without risk. Cool fire- endangered containers with water.	
Special protective equipment for fire-fighters:	Firefighters must wear NIOSH/MSHA approved positive pressure self- contained breathing apparatus with full face mask and full protective clothing.	
6. Accidental release measures		

Personal precautions, protective equipment and emergency procedures:	Keep container closed. Avoid contact with skin and eyes. Remove contact lenses before using sealant. Do not handle lenses until all sealant has been cleaned from the finger and hands. Product releases methanol during application and curing. Keep out of reach of children. See Section 8 of the SDS for Personal Protective Equipment.
	SDS for Personal Protective Equipment.



Methods and material for containment and cleaning up:	Wipe, scrape or soak up in an inert material and put in a container for disposal. Wear proper protective equipment as specified in the protective equipment section.
7. Handling and storage	
Precautions for safe handling:	Sensitivity to static discharge is not expected. Methanol is formed during processing. Avoid contact with eyes, skin, and clothing. See Section 8 of the SDS for Personal Protective Equipment. Do not eat, drink or smoke when using the product. Wash thoroughly after handling.
Conditions for safe storage, including any incompatibilities:	Keep away from heat, sparks and open flame. Keep container tightly closed.

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

Chemical Identity	Туре	Exposure Limit Values	Source
(1) CALCIUM CARBONATE - Respirable.	REL	5 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2010)
(1) CALCIUM CARBONATE - Total	REL	10 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2010)
(1) CALCIUM CARBONATE - Total dust.	PEL	15 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006)
(1) CALCIUM CARBONATE - Respirable fraction.	PEL	5 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006)
(1) CALCIUM CARBONATE - Total dust.	TWA	15 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989)
(1) CALCIUM CARBONATE - Respirable fraction.	TWA	5 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989)
(1) CALCIUM CARBONATE - Total dust.	TWA	15 mg/m3	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A, as amended (06 2008)
(1) CALCIUM CARBONATE - Respirable fraction.	TWA	5 mg/m3	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A, as amended (06 2008)
(1) TITANIUM DIOXIDE	TWA	10 mg/m3	US. ACGIH Threshold Limit Values, as amended (03 2015)
(1) TITANIUM DIOXIDE - Total dust.	PEL	15 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006)
	TWA	10 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989)
	TWA	10 mg/m3	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A, as amended (06 2008)
(1) TITANIUM DIOXIDE - Particulate.	ST ESL	50 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended (11 2016)
	AN ESL	5 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended (11 2016)
(1) TITANIUM DIOXIDE - Total dust.	TWA PEL	10 mg/m3	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants, as amended (01 2015)
(1) TITANIUM DIOXIDE - Respirable fraction.	TWA PEL	5 mg/m3	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants, as



			amended (01 2015)
	T A/A		
	TWA	15 millions of	US. OSHA Table Z-3 (29 CFR 1910.1000), as
		particles per	amended (03 2016)
		cubic foot of	
		air	
(1) TITANIUM DIOXIDE -	TWA	15 mg/m3	US. OSHA Table Z-3 (29 CFR 1910.1000), as
Total dust.		°,	amended (03 2016)
(1) TITANIUM DIOXIDE -	TWA	5 mg/m3	US. OSHA Table Z-3 (29 CFR 1910.1000), as
Respirable fraction.		5	amended (03 2016)
(1) TITANIUM DIOXIDE -	TWA	50 millions of	US. OSHA Table Z-3 (29 CFR 1910.1000), as
Total dust.		particles per	amended (03 2016)
		cubic foot of	
		air	
(1) TITANIUM DIOXIDE	IDLH	5,000 mg/m3	US. NIOSH. Immediately Dangerous to Life or
			Health (IDLH) Values, as amended (10 2017)
Octadecanoic acid -	TWA	3 mg/m3	US. ACGIH Threshold Limit Values, as
Respirable fraction.		-	amended (03 2017)
Octadecanoic acid -	TWA	10 mg/m3	US. ACGIH Threshold Limit Values, as
Inhalable fraction.		-	amended (03 2017)
Octamethylcyclotetrasiloxane	TWA	5 ppm	
Octamethylcyclotetrasiloxane	ST ESL	1,000 µg/m3	US. Texas. Effects Screening Levels (Texas
- Vapor.			Commission on Environmental Quality), as
			amended (11 2016)
	AN ESL	100 µg/m3	US. Texas. Effects Screening Levels (Texas
			Commission on Environmental Quality), as
			amended (11 2016)
Octamethylcyclotetrasiloxane	TWA	10 ppm	US. OARS. WEELs Workplace Environmental
			Exposure Level Guide, as amended (2014)

This product contains one or more substances with an occupational exposure limit. However, the respirable particle(s) of this/these substance(s) are inextricably bound within the polymer matrix. Therefore, we do not expect an exposure to this/these substance(s) during normal use of this product. Tooling or machining of the cured product (sanding, cutting, milling) may release hazardous, respirable substances.

Appropriate Engineering Controls

Eye wash facilities and emergency shower must be available when handling this product. Ventilation and other forms of engineering controls are preferred for controlling exposures. Respiratory protection may be needed for non-routine or emergency situations.

Individual protection measures, such as personal protective equipment

General information:	Wear suitable gloves and eye/face protection.
Eye/face protection:	Safety glasses with side shields
Skin Protection Hand Protection:	Use chemical-resistant, impervious gloves.
Other:	Wear suitable protective clothing and eye/face protection.
Respiratory Protection:	If inhalation exposure is expected, 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).



Hygiene measures:

Provide adequate ventilation. Observe good industrial hygiene practices. Avoid contact with eyes, skin, and clothing. Wash hands after handling. When using do not eat, drink or smoke.

9. Physical and chemical properties

Appearance	
Physical state:	liquid
Form:	Paste
Color:	White
Odor:	Negligible
Odor threshold:	No data available.
pH:	No data available.
Melting point/freezing point:	No data available.
Initial boiling point and boiling range:	No data available.
Flash Point:	Measured 95.7 °C (Closed Cup)
Evaporation rate:	No data available.
Flammability (solid, gas):	No data available.
Upper/lower limit on flammability or explosive	ve limits
Flammability limit - upper (%):	No data available.
Flammability limit - lower (%):	No data available.
Explosive limit - upper:	No data available.
Explosive limit - lower:	No data available.
Heat of combustion:	No data available.
Vapor pressure:	Not applicable
Vapor density:	No data available.
Density:	ca. 1.18 g/cm3
Relative density:	No data available.
Solubility(ies)	
Solubility in water:	Insoluble
Solubility (other):	No data available.
Partition coefficient (n-octanol/water) Log Pow:	No data available.
Auto-ignition temperature:	No data available.
Decomposition temperature:	No decomposition if stored and applied as directed.
SADT:	No data available.
Viscosity, dynamic:	No data available.
Viscosity, kinematic:	> 20.5 mm2/s (40 °C)
VOC:	37 g/l ;



10. Stability and reactivity

Reactivity:	No dangerous reaction if used as recommended.	
Chemical Stability:	Material is stable under normal conditions.	
Possibility of hazardous reactions:	Under normal conditions of storage and use, hazardous polymerization will not occur.	
Conditions to avoid:	Keep away from moisture. Keep away from heat, sparks and open flame.	
Incompatible Materials:	Strong Acids, Strong Bases Contact with water.	
Hazardous Decomposition Products:	Carbon dioxide Silicon dioxide. Measurements at temperatures above 150°C in presence of air (oxygen) have shown that small amounts of formaldehyde are formed due to oxidative degradation. Generates methanol during cure.	

11. Toxicological information

Information on likely routes of ex Ingestion:	xposure No data available.	
Inhalation:	No data available.	
Skin Contact:	No data available.	
Eye contact:	No data available.	
Symptoms related to the physical, chemical and toxicological characteristics Ingestion: No data available.		
Inhalation:	No data available.	
Skin Contact:	No data available.	
Eye contact:	No data available.	
Information on toxicological effects		
Acute toxicity (list all possible routes of exposure)		

Oral Product:

Not classified for acute toxicity based on available data.



Specified substance(s): (1) TITANIUM DIOXIDE	LD 50 (Rat): > 10,000 mg/kg
Octadecanoic acid	LD 50 (Rat, No data available.): > 2,000 mg/kg
Octamethylcyclotetrasilox ane	LD 50 (Rat): > 4,800 mg/kg
Dermal Product:	Not classified for acute toxicity based on available data.
Specified substance(s): (1) TITANIUM DIOXIDE	LD 50 (Rabbit): > 10,000 mg/kg
Octamethylcyclotetrasilox ane	LD 50 (Rat): > 2,375 mg/kg
Inhalation Product:	Not classified for acute toxicity based on available data.
Specified substance(s): (1) TITANIUM DIOXIDE	LC50 (Rat): > 6.8 mg/l
Octamethylcyclotetrasilox ane	LC50 (Rat): 36 mg/l
Repeated dose toxicity Product:	No data available.
Skin Corrosion/Irritation Product:	No data available.
Specified substance(s): Octadecanoic acid	No skin irritation
Specified substance(s): Octamethylcyclotetrasil oxane	OECD-Guideline 404 (Acute Dermal Irritation/Corrosion) (Rabbit): Slightly irritating.
Serious Eye Damage/Eye Irritatio Product:	on No data available.
Specified substance(s): (1) TITANIUM DIOXIDE Specified substance(s):	No eye irritation
SDS_US	9/16



Octamethylcyclotetrasil OECD-Guideline 405 (Acute Eye Irritation/Corrosion) (Rabbit): Non irritating oxane

Respiratory or Skin Sensitization Product: No data available.

Carcinogenicity Product:

No data available.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

No carcinogenic components identified

US. National Toxicology Program (NTP) Report on Carcinogens: No carcinogenic components identified

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050), as amended: No carcinogenic components identified

Germ Cell Mutagenicity

In vitro Product:	No data available.		
Specified substance(s): Octamethylcyclotetrasilox ane	Ames-Test (OECD-Guideline 471 (Genetic Toxicology: Salmonella typhimurium, Reverse Mutation Assay)): negative (not mutagenic) Mouse Lymphoma Assay (OECD Guidline 476): negative (not mutagenic)		
In vivo Product:	No data available.		
Specified substance(s): Octamethylcyclotetrasilox ane	Chromosomal aberration (OECD-Guideline 474 (Genetic Toxicology: Micronucleus Test)) Inhalation (Rat, male and female): negative		
Reproductive toxicity Product:	No data available.		
Specific Target Organ Toxicity - Single Exposure Product: No data available.			
Specific Target Organ Toxicity - Product:	Repeated Exposure No data available.		
Aspiration Hazard Product:	No data available.		



Other effects:	No data available.
12. Ecological information	
Ecotoxicity:	
Acute hazards to the aquatic e	environment:
Fish Product:	No data available.
Specified substance(s): (1) TITANIUM DIOXIDE	LC0 (Leuciscus idus, 48 h): > 1,000 mg/l
Octadecanoic acid	LC0 (Brachydanio rerio, 96 h): > 100 mg/l LC0 (Leuciscus idus, 96 h): > 100 mg/l
Aquatic Invertebrates Product:	No data available.
Chronic hazards to the aquati	c environment:
Fish Product:	No data available.
Specified substance(s): Octadecanoic acid	LC0 (Brachydanio rerio, 4 d): > 100 mg/l LC0 (Leuciscus idus, 4 d): > 100 mg/l
Aquatic Invertebrates Product:	No data available.
Toxicity to Aquatic Plants Product:	No data available.
Persistence and Degradability	
Biodegradation Product:	No data available.
Specified substance(s): (1) TITANIUM DIOXIDE	0 %
Octamethylcyclotetrasilox ane	3.7 % (29 d, 310 Ready Biodegradability - CO_2 in Sealed Vessels (Headspace Test)) Not readily biodegradable.
BOD/COD Ratio Product:	No data available.



Bioaccumulative potential Bioconcentration Factor (BC	CF)		
Product:	No data available.		
Specified substance(s): Octamethylcyclotetrasilox ane	Fathead Minnow, Bioconcentration Factor (BCF): 12.40		
Partition Coefficient n-octan	ol / water (log Kow)		
Product:	No data available.		
Mobility in soil:	No data available.		
•	tion to environmental compartments		
(1) CALCIUM CARBONATE	No data available.		
Silanamine, 1,1,1-trimethyl- N-(trimethylsilyl) -, reaction products with ammonia, octamethylcyclotetrasiloxan e and silica	No data available.		
(1) TITANIUM DIOXIDE	No data available.		
Titanium, Bis(ethyl acetoacetato)-diispropoxy	No data available.		
Octadecanoic acid	No data available.		
Octamethylcyclotetrasiloxa ne	No data available.		
Other adverse effects:	No data available.		
13. Disposal considerations			
General information:	The generation of waste should be avoided or minimized wherever possible. Do not discharge into drains, water courses or onto the ground. See Section 8 for information on appropriate personal protective equipment.		
Disposal instructions:	Disposal should be made in accordance with federal, state and local regulations.		
Contaminated Packaging:	Dispose of as unused product.		
14. Transport information			

DOT

Not regulated.

IMDG

Not regulated.

SDS_US



ΙΑΤΑ

Not regulated.

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

US Federal Regulations

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D) None present or none present in regulated quantities.

US. Toxic Substances Control Act (TSCA) Section 5(a)(2) Final Significant New Use Rules (SNURs) (40 CFR 721, Subpt E)

None present or none present in regulated quantities.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050), as amended

Chemical Identity	OSHA hazard(s)
Siloxanes and Silicones,	No OSHA Hazards
di-Me hydroxy terminated	
(1) CALCIUM	Causes mild skin irritation.; Respiratory hazard.
	limitenet
(1) TITANIUM DIOXIDE	Irritant.
Methyltrimethoxysilane	Causes mild skin irritation.
Titanium, Bis(ethyl	Causes mild skin irritation.; Respiratory hazard.
acetoacetato)-diispropoxy	

CERCLA Hazardous Substance List (40 CFR 302.4):

None present or none present in regulated quantities.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Reproductive toxicity

SARA 302 Extremely Hazardous Substance None present or none present in regulated quantities.

SARA 304 Emergency Release Notification

None present or none present in regulated quantities.



SARA 311/312 Hazardous Chemical <u>Chemical Identity</u> <u>Threshold Planning Quantity</u>

US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 313 Toxic Chemicals (40 CFR 372.65) - Supplier Notification Required None present or none present in regulated quantities.

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3) None present or none present in regulated quantities.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130): None present or none present in regulated quantities.

US State Regulations

US. California Proposition 65



WARNING: This product can expose you to chemicals including Methanol, which is [are] known to the State of California to cause birth defects or other reproductive harm.

For more information go to www.P65Warnings.ca.gov.

US. New Jersey Worker and Community Right-to-Know Act

Chemical Identity

Siloxanes and Silicones, di-Me hydroxy terminated (1) CALCIUM CARBONATE Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl) -, reaction products with ammonia, octamethylcyclotetrasiloxane and silica (1) TITANIUM DIOXIDE Methyltrimethoxysilane

US. Massachusetts RTK - Substance List

Chemical Identity (1) QUARTZ

US. Pennsylvania RTK - Hazardous Substances

Chemical Identity

(1) CALCIUM CARBONATE

(1) TITANIUM DIOXIDE

US. Rhode Island RTK

No ingredient regulated by RI Right-to-Know Law present.

MOMENTIVE inventing possibilities

ENDURIS LIQUID FLASHING

Inventory Status:

Australia AICS:	On or in compliance with the inventory	Remarks: None.
Canada DSL Inventory List:	Q (quantity restricted)	Remarks: At least one component is not listed in DSL but all such components are listed in NDSL.
EINECS, ELINCS or NLP:	On or in compliance with the inventory	Remarks: None.
Japan (ENCS) List:	On or in compliance with the inventory	Remarks: None.
China Inv. Existing Chemical Substances:	On or in compliance with the inventory	Remarks: None.
Korea Existing Chemicals Inv. (KECI):	Not in compliance with the inventory.	Remarks: None.
Canada NDSL Inventory:	Not in compliance with the inventory.	Remarks: None.
Philippines PICCS:	Not in compliance with the inventory.	Remarks: None.
US TSCA Inventory:	On or in compliance with the inventory	Remarks: None.
New Zealand Inventory of Chemicals:	Not in compliance with the inventory.	Remarks: None.
Taiwan Chemical Substance Inventory:	On or in compliance with the inventory	Remarks: None.

16.Other information, including date of preparation or last revision

HMIS Hazard ID

Health	*	0
Flammability		1
Physical Hazards		1
PERSONAL PROTECTION		

Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe; RNP - Rating not possible; *Chronic health effect

Issue Date:	08/20/2020	
Revision Date:	No data available.	
Version #:	3.0	
Further Information:	No data available.	



Version: 3.0 Revision Date: 08/20/2020

ENDURIS LIQUID FLASHING

Disclaimer:

Notice to reader

Unless otherwise specified in section 1, Momentive products are intended for use in the manufacture and/or formulation of products and are not intended for direct consumer use. These products are not intended for long-lasting (> 30 days) implantation, injection or direct ingestion into the human body, nor for use in the manufacture of multiple use contraceptives. Keep out of the reach of children.

Further Information

The information provided in this Safety Data Sheet is correct to the best ofour knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safehandling, 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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