



**SECTION 1. IDENTIFICATION**

Product name : Sikalastic®-644 Lo-VOC

Company name : Sika Corporation  
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 Lyndhurst, NJ 07071  
 USA  
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Emergency telephone : CHEMTREC: 800-424-9300  
 INTERNATIONAL: 703-527-3887

Recommended use of the chemical and restrictions on use : For further information, refer to product data sheet.

**SECTION 2. HAZARDS IDENTIFICATION**

**GHS classification in accordance with 29 CFR 1910.1200**

Flammable liquids : Category 3

Acute toxicity (Inhalation) : Category 4

Skin irritation : Category 2

Eye irritation : Category 2A

Respiratory sensitization : Category 1

Skin sensitization : Category 1

**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.

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 skin 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.  
P280 Wear protective gloves/ eye protection/ face protection.  
P285 In case of inadequate ventilation wear respiratory protection.

**Response:**

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.  
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.  
P362 Take off contaminated clothing and wash before reuse.  
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

**Storage:**

P403 + P235 Store in a well-ventilated place. Keep cool.

**Disposal:**

P501 Dispose of contents/ container to an approved waste disposal plant.

**Additional Labeling**

There are no ingredients with unknown acute toxicity used in a mixture at a concentration  $\geq 1\%$ .

**Other hazards**

None known.



### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### Mixtures

##### Components

Chemical name	CAS-No.	Classification	Concentration (% w/w)
4-chloro-alpha,alpha,alpha-trifluorotoluene	98-56-6	Flam. Liq. 3; H226 Skin Irrit. 2; H315 Eye Irrit. 2A; H319 Skin Sens. 1B; H317 STOT SE 3; H335	>= 10 - < 20
propylene carbonate	108-32-7	Eye Irrit. 2A; H319	>= 5 - < 10
Hardener MI (Isophoronedimethacrylate(morpholinoaldimine))	1217271-02-7	Skin Irrit. 2; H315 Eye Irrit. 2A; H319 Skin Sens. 1; H317	>= 5 - < 10
barium sulfate	7727-43-7		>= 1 - < 5
3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate	4098-71-9	Acute Tox. 1; H330 Skin Corr. 1C; H314 Eye Dam. 1; H318 Resp. Sens. 1; H334 Skin Sens. 1; H317 STOT SE 3; H335	>= 0.1 - < 1
bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate	41556-26-7	Skin Sens. 1A; H317	>= 0.1 - < 1
methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	82919-37-7	Skin Sens. 1A; H317	>= 0.1 - < 1
4,5-dichloro-2-octyl-2H-isothiazol-3-one (DCOIT)	64359-81-5	Acute Tox. 4; H302 Acute Tox. 2; H330 Skin Corr. 1B; H314 Skin Sens. 1A; H317	>= 0.1 - < 1

Actual concentration is withheld as a trade secret

### SECTION 4. FIRST AID MEASURES

- General advice : Move out of dangerous area.  
Consult a physician.  
Show this material safety data sheet to the doctor in attendance.
- If inhaled : Move to fresh air.  
Consult a physician after significant exposure.
- In case of skin contact : Take off contaminated clothing and shoes immediately.  
Wash off with soap and plenty of water.  
If symptoms persist, call a physician.
- In case of eye contact : Immediately flush eye(s) with plenty of water.  
Remove contact lenses.  
Keep eye wide open while rinsing.  
If eye irritation persists, consult a specialist.



- If swallowed : Clean mouth with water and drink afterwards plenty of water.  
Do not induce vomiting without medical advice.  
Do not give milk or alcoholic beverages.  
Never give anything by mouth to an unconscious person.  
Obtain medical attention.
  
- Most important symptoms and effects, both acute and delayed : irritant effects  
sensitizing effects  
Asthmatic appearance  
Respiratory disorder  
Allergic reactions  
Excessive lachrymation  
Erythema  
Headache  
Dermatitis  
Causes skin irritation.  
May cause an allergic skin reaction.  
Causes serious eye irritation.  
Harmful if inhaled.  
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
  
- Notes to physician : Treat symptomatically.

**SECTION 5. FIRE-FIGHTING MEASURES**

- Suitable extinguishing media : Alcohol-resistant foam  
Carbon dioxide (CO<sub>2</sub>)  
Dry chemical
  
- Unsuitable extinguishing media : Water  
High volume water jet
  
- Specific hazards during fire fighting : Do not use a solid water stream as it may scatter and spread fire.
  
- Further information : Use water spray to cool unopened containers.  
Collect contaminated fire extinguishing water separately. This must not be discharged into drains.  
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
  
- Special protective equipment for fire-fighters : In the event of fire, wear self-contained breathing apparatus.

**SECTION 6. ACCIDENTAL RELEASE MEASURES**

- Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.  
Remove all sources of ignition.  
Deny access to unprotected persons.  
Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.



- Environmental precautions : Prevent product from entering drains.  
If the product contaminates rivers and lakes or drains inform respective authorities.  
Local authorities should be advised if significant spillages cannot be contained.
- Methods and materials for containment and cleaning up : Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

**SECTION 7. HANDLING AND STORAGE**

- Advice on protection against fire and explosion : Keep away from heat/sparks/open flames/hot surfaces. No smoking.  
Take precautionary measures against electrostatic discharges.
- Advice on safe handling : Avoid formation of aerosol.  
Do not breathe vapors or spray mist.  
Avoid exceeding the given occupational exposure limits (see section 8).  
Do not get in eyes, on skin, or on clothing.  
For personal protection see section 8.  
Persons with a history of skin sensitization problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.  
Smoking, eating and drinking should be prohibited in the application area.  
Take precautionary measures against static discharge.  
Provide sufficient air exchange and/or exhaust in work rooms.  
Open drum carefully as content may be under pressure.  
Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors).  
Follow standard hygiene measures when handling chemical products.  
Precautions should be taken to prevent odors and/or vapors from entering the building/structure, including but not limited to turning off and sealing air intake vents or other means of ingress for odors and/or vapors into the building/structure during product application and cure.
- Avoid formation of aerosol.  
Do not breathe vapors or spray mist.  
Avoid exceeding the given occupational exposure limits (see section 8).  
Do not get in eyes, on skin, or on clothing.  
For personal protection see section 8.  
Persons with a history of skin sensitization problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being



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 Smoking, eating and drinking should be prohibited in the application area.  
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 Provide sufficient air exchange and/or exhaust in work rooms.  
 Open drum carefully as content may be under pressure.  
 Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors).  
 Follow standard hygiene measures when handling chemical products.

- Conditions for safe storage : Store in original container.  
 Keep in a well-ventilated place.  
 Containers which are opened must be carefully resealed and kept upright to prevent leakage.  
 Observe label precautions.  
 Store in accordance with local regulations.
- Materials to avoid : Explosives  
 Oxidizing agents  
 Poisonous gases  
 Poisonous liquids
- Further information on storage stability : No decomposition if stored and applied as directed.

**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Ingredients with workplace control parameters**

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
barium sulfate	7727-43-7	TWA (Inhalable fraction)	5 mg/m3	ACGIH
		TWA (total dust)	15 mg/m3	OSHA Z-1
		TWA (respirable fraction)	5 mg/m3	OSHA Z-1
		TWA (Total dust)	10 mg/m3	OSHA P0
		TWA (respirable dust fraction)	5 mg/m3	OSHA P0
3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate	4098-71-9	TWA	0.005 ppm	OSHA P0
		STEL	0.02 ppm	OSHA P0

- Engineering measures** : Use of adequate ventilation should be sufficient to control worker exposure to airborne contaminants. If the use of this product generates dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommend-



ed or statutory limits.  
 The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits.

**Personal protective equipment**

Respiratory protection : Use a properly fitted NIOSH approved air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

The filter class for the respirator must be suitable for the maximum expected contaminant concentration (gas/vapor/aerosol/particulates) that may arise when handling the product. If this concentration is exceeded, self-contained breathing apparatus must be used.

Hand protection  
 Remarks : 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.

Eye protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary.

Skin and body protection : Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.

Hygiene measures : Avoid contact with skin, eyes and clothing.  
 Wash hands before breaks and immediately after handling the product.  
 Remove respiratory and skin/eye protection only after vapors have been cleared from the area.  
 Remove contaminated clothing and protective equipment before entering eating areas.  
 Wash thoroughly after handling.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance : viscous liquid  
 Color : gray, white  
 Odor : solvent  
 Odor Threshold : No data available  
 pH : Not applicable  
 Melting point/range / Freezing point : No data available



Boiling point/boiling range	:	No data available
Flash point	:	ca. 138 °F / 59 °C (Method: closed cup)
Evaporation rate	:	No data available
Flammability (solid, gas)	:	No data available
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Vapor pressure	:	7.066066 hpa
Relative vapor density	:	No data available
Density	:	ca. 1.41 g/cm <sup>3</sup> (74.7 °F / 23.7 °C)
Solubility(ies)		
Water solubility	:	insoluble
Solubility in other solvents	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Autoignition temperature	:	305 °C
Decomposition temperature	:	No data available
Viscosity		
Viscosity, dynamic	:	No data available
Viscosity, kinematic	:	> 20.5 mm <sup>2</sup> /s (104 °F / 40 °C)
Explosive properties	:	No data available
Oxidizing properties	:	No data available
Volatile organic compounds (VOC) content	:	15 g/l

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**SECTION 10. STABILITY AND REACTIVITY**

Reactivity	:	No dangerous reaction known under conditions of normal use.
Chemical stability	:	The product is chemically stable.





Possibility of hazardous reactions	:	Stable under recommended storage conditions. Vapors may form explosive mixture with air.
Conditions to avoid	:	Heat, flames and sparks.
Incompatible materials	:	No data available

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## SECTION 11. TOXICOLOGICAL INFORMATION

**Acute toxicity**

Harmful if inhaled.

**Components:****4-chloro-alpha,alpha,alpha-trifluorotoluene:**

Acute oral toxicity : LD50 Oral (Rat): > 13,000 mg/kg

**Hardener MI (Isophoronedimethyl(morpholinoaldimine)):**

Acute oral toxicity : LD50 Oral (Rat): > 2,001 mg/kg

**3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate:**

Acute oral toxicity : LD50 Oral (Rat): 4,814 mg/kg

Acute inhalation toxicity : LC50 (Rat): 0.031 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist

Acute dermal toxicity : LD50 Dermal (Rat): > 7,000 mg/kg

**4,5-dichloro-2-octyl-2H-isothiazol-3-one (DCOIT):**

Acute oral toxicity : LD50 Oral (Rat): 1,636 mg/kg

Acute inhalation toxicity : LC50 (Rat): 0.26 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist

**Skin corrosion/irritation**

Causes skin irritation.

**Components:****Hardener MI (Isophoronedimethyl(morpholinoaldimine)):**

Method : Regulation (EC) No. 440/2008, Annex, B.46  
Result : Skin irritation

**Serious eye damage/eye irritation**

Causes serious eye irritation.

**Components:****Hardener MI (Isophoronedimethacrylate(morpholinoaldimine)):**

Result : Eye irritation  
 Method : OECD Test Guideline 405

**Respiratory or skin sensitization****Skin sensitization**

May cause an allergic skin reaction.

**Respiratory sensitization**

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

**Components:****Hardener MI (Isophoronedimethacrylate(morpholinoaldimine)):**

Method : Regulation (EC) No. 440/2008, Annex, B.42 (LLNA)  
 Result : May cause sensitization by skin contact.

**Germ cell mutagenicity**

Not classified based on available information.

**Carcinogenicity**

Not classified based on available information.

**IARC** Group 2B: Possibly carcinogenic to humans  
 titanium dioxide 13463-67-7

**OSHA** Not applicable

**NTP** Not applicable

**Reproductive toxicity**

Not classified based on available information.

**STOT-single exposure**

Not classified based on available information.

**STOT-repeated exposure**

Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

**Aspiration toxicity**

Not classified based on available information.

**Further information****Product:**

Remarks : Titanium dioxide (13463-67-7)  
 In lifetime inhalation studies of rats, airborne respirable-size titanium dioxide particles have shown to cause an increase in lung tumors at concentrations associated with substantial particle lung burdens and consequential pulmonary overload and inflammation. The potential for these adverse health effects appears to be closely related to the particle size and the



amount of the exposed surface area that comes into contact with the lung. However, tests with other laboratory animals such as mice and hamsters, indicate that rats are significantly more susceptible to the pulmonary overload and inflammation that causes lung cancer. Epidemiological studies do not suggest an increased risk of cancer in humans from occupational exposure to titanium dioxide. Titanium dioxide has been characterized by IARC as possibly carcinogenic to humans (Group 2B) through inhalation (not ingestion). It has not been characterized as a potential carcinogen by either NTP or OSHA.

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## SECTION 12. ECOLOGICAL INFORMATION

### Ecotoxicity

#### Components:

##### **4-chloro-alpha,alpha,alpha-trifluorotoluene:**

Toxicity to fish	:	LC50 (Brachydanio rerio (zebrafish)): 3 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 2 mg/l Exposure time: 48 h
Toxicity to algae/aquatic plants	:	EC50 (Pseudokirchneriella subcapitata (green algae)): > 0.41 mg/l Exposure time: 72 h

##### **Hardener MI (Isophoronedimethyl(morpholinoaldimine)):**

Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 40.2 mg/l Exposure time: 48 h
		NOEC (Daphnia magna (Water flea)): 17.1 mg/l Exposure time: 48 h
Toxicity to algae/aquatic plants	:	EC50 (Pseudokirchneriella subcapitata (green algae)): 89 mg/l Exposure time: 72 h

##### **4,5-dichloro-2-octyl-2H-isothiazol-3-one (DCOIT):**

Toxicity to fish	:	LC50 (Fish): 0.0027 mg/l Exposure time: 96 h
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### **Persistence and degradability**

No data available

### **Bioaccumulative potential**

No data available

### **Mobility in soil**

No data available



**Other adverse effects**

**Product:**

Additional ecological information : Do not empty into drains; dispose of this material and its container in a safe way.  
 Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.  
 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
 May be harmful to the environment if released in large quantities.  
 Water polluting material.

**SECTION 13. DISPOSAL CONSIDERATIONS**

**Disposal methods**

Waste from residues : 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.

Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.

**SECTION 14. TRANSPORT INFORMATION**

**International Regulations**

**IATA-DGR**

UN/ID No. : UN 1263  
 Proper shipping name : Paint related material  
 (4-chloro-a,a,a-trifluorotoluene)  
 Class : 3  
 Packing group : III  
 Labels : Flammable Liquids  
 Packing instruction (cargo aircraft) : 366  
 Packing instruction (passenger aircraft) : 355

**IMDG-Code**

UN number : UN 1263  
 Proper shipping name : PAINT RELATED MATERIAL  
 (4-chloro-a,a,a-trifluorotoluene)  
 Class : 3  
 Packing group : III  
 Labels : 3  
 EmS Code : F-E, S-E  
 Marine pollutant : yes

**Domestic regulation**

**49 CFR**

UN/ID/NA number	:	UN 1263
Proper shipping name	:	Paint related material
Class	:	3
Packing group	:	III
Labels	:	FLAMMABLE LIQUID
ERG Code	:	128
Marine pollutant	:	no

DOT: As per 49CFR 173.150 (f) Combustible Liquid Exception, Material is Not Regulated.  
 IMDG: For Limited Quantity special provisions reference IMDG Code Chapter 3.4

**Special precautions for user**

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

**SECTION 15. REGULATORY INFORMATION**

<b>TSCA list</b>	:	All chemical substances in this product are either listed on the TSCA Inventory or are in compliance with a TSCA Inventory exemption.
<b>TSCA Continued</b>	:	This product contains a substance regulated by EPA under a TSCA Significant New Use Rule (SNUR). Information about this SNUR can be found at 40 CFR 721.10774. In addition, because this substance is subject to a SNUR, it is also subject to export notification under TSCA Section 12(b).

**EPCRA - Emergency Planning and Community Right-to-Know****CERCLA Reportable Quantity**

This material does not contain any components with a CERCLA RQ.

**SARA 304 Extremely Hazardous Substances Reportable Quantity**

This material does not contain any components with a section 304 EHS RQ.

**SARA 302 Extremely Hazardous Substances Threshold Planning Quantity**

This material does not contain any components with a section 302 EHS TPQ.

<b>SARA 311/312 Hazards</b>	:	Flammable (gases, aerosols, liquids, or solids) Acute toxicity (any route of exposure) Skin corrosion or irritation Serious eye damage or eye irritation Respiratory or skin sensitization
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<b>SARA 313</b>	:	This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.
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**Clean Air Act**

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

**California Prop 65**

**WARNING:** Cancer and Reproductive Harm -  
www.P65Warnings.ca.gov

**SECTION 16. OTHER INFORMATION****Full text of other abbreviations**

ACGIH	:	USA. ACGIH Threshold Limit Values (TLV)
OSHA P0	:	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
OSHA Z-1	:	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
ACGIH / TWA	:	8-hour, time-weighted average
OSHA P0 / TWA	:	8-hour time weighted average
OSHA P0 / STEL	:	Short-term exposure limit
OSHA Z-1 / TWA	:	8-hour time weighted average

**Notes to Reader**

The information contained in this Safety Data Sheet applies only to the actual Sika Corporation ("Sika") product identified and described herein. This information is not intended to address, nor does it address the use or application of the identified Sika product in combination with any other material, product or process. All of the information set forth herein is based on technical data regarding the identified product that Sika believes to be reliable as of the date hereof. Prior to each use of any Sika product, the user must always read and follow the warnings and instructions on the product's current Product Data Sheet, product label and Safety Data Sheet for each Sika product, which are available at web site and/or telephone number listed in Section 1 of this SDS.

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Revision Date 04/03/2019

100000017520

US / Z8