

OPTIC 2401 1GP

SAFETY DATA SHEET

1. Identification

Product identifier: OPTIC 2401 1GP

Other means of identification

Synonyms: Silicone Coating

Recommended use and restriction on use

Recommended use: Industrial use

Restrictions on use: Not known.

Manufacturer/Importer/Distributor 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

Physical Hazards

Flammable liquids Category 3

Health Hazards

Toxic to reproduction Category 2

Label Elements

Hazard Symbol:



Signal Word: Danger

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Hazard Statement: H226; Flammable liquid and vapor.
H361; Suspected of damaging fertility or the unborn child.
H372; Causes damage to organs through prolonged or repeated exposure.

Precautionary Statements

Prevention: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed. Ground and bond container and receiving equipment. Use explosion-proof [electrical/ventilating/lighting/...] equipment. Use non-sparking tools. Take action to prevent static discharges. Wear protective gloves/protective clothing/eye protection/face protection. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Do not breathe dust or mists. Wash thoroughly after handling. Do not eat, drink or smoke when using this product.

Response: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. IF exposed or concerned: Get medical advice/attention. In case of fire, use sand, dry chemical or alcohol-resistant foam.

Storage: Store in a well-ventilated place. Keep cool. 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.

Other hazards which do not result in GHS classification: None.

Substance(s) formed under the conditions of use: Generates methanol during cure.

3. Composition/information on ingredients
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Mixtures

Chemical Identity	CAS number	Content in percent (%)*	Notes
Solvent Naphtha	64742-88-7	20 - <50%	# This substance has workplace exposure limit(s).
Titanium, Bis(ethyl acetoacetato)-diispropoxy	27858-32-8	1 - <5%	# 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.

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:** Wash contaminated clothing before reuse. In case of contact, immediately flush skin with plenty of soap and water for at least 15 minutes. Get medical 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:** None known.
- Hazards:** No data available.

Indication of immediate medical attention and special treatment needed

- Treatment:** Treatment is symptomatic and supportive.

5. Fire-fighting measures

- General Fire Hazards:** Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. Use standard firefighting procedures and consider the hazards of other involved materials.

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Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: Water spray Carbon dioxide Foam.

Unsuitable extinguishing media: Do not use water jet as an extinguisher, as this will spread the 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. 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 equipment and precautions for firefighters

Special fire fighting procedures: When using do not smoke. Do not empty into drains.

Special protective equipment for fire-fighters: Combustible This product or a component thereof can flow along surface to reach a distant ignition source and flash back. 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: Product releases methanol during application and curing. Avoid contact with eyes, skin, and clothing. Use only in well-ventilated areas. Avoid inhalation of vapors and spray mists. Keep container closed. Keep out of reach of children. See Section 8 of the SDS for Personal Protective Equipment.

Methods and material for containment and cleaning up: Wear proper protective equipment as specified in the protective equipment section. Wipe, scrape, or soak up in an inert material and put in a container intended for flammable materials for disposal. Warn other workers of spill. Keep unauthorized personnel away.

Notification Procedures: Caution: Contaminated surfaces may be slippery. See Section 8 of the SDS for Personal Protective Equipment.

Environmental Precautions: Do not allow runoff to sewer, waterway or ground.

7. Handling and storage

Precautions for safe handling: Sensitivity to static discharge is expected; material has a flash point below 200 F. Do not get in eyes, on skin, on clothing. Do not taste or swallow. Use only in well-ventilated areas. See Section 8 of the SDS for Personal Protective Equipment.

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Conditions for safe storage, including any incompatibilities:

Keep container tightly closed. Recommended storage in original container below 30°C (85°F).

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

Chemical Identity	Type	Exposure Limit Values	Source
Solvent Naphtha - Non-aerosol. - as total hydrocarbon vapor	TWA	200 mg/m ³	US. ACGIH Threshold Limit Values (03 2015)
Solvent Naphtha	REL	100 mg/m ³	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
	REL	100 ppm 400 mg/m ³	US. NIOSH: Pocket Guide to Chemical Hazards (2016)
	PEL	100 ppm 400 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (01 2017)
	TWA	100 ppm 400 mg/m ³	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	TWA	100 ppm 400 mg/m ³	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)
	AN ESL	350 µg/m ³	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
	ST ESL	3,500 µg/m ³	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
	STEL	400 ppm 1,800 mg/m ³	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (10 2016)
	TWA PEL	300 ppm 1,350 mg/m ³	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (10 2016)
Octamethylcyclotetrasiloxane	TWA	5 ppm	
Octamethylcyclotetrasiloxane - Vapor.	ST ESL	1,000 µg/m ³	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
	AN ESL	100 µg/m ³	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
Octamethylcyclotetrasiloxane	TWA	10 ppm	US. OARS. WEELs Workplace Environmental Exposure Level Guide (2014)
Chemical Identity	Type	Exposure Limit Values	Source
Solvent Naphtha - Non-aerosol. - as total hydrocarbon vapor	TWA	200 mg/m ³	US. ACGIH Threshold Limit Values (03 2015)
Solvent Naphtha	REL	100 mg/m ³	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
	REL	100 ppm 400 mg/m ³	US. NIOSH: Pocket Guide to Chemical Hazards (2016)
	PEL	100 ppm 400 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (01 2017)
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			2016)
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	STEL	400 ppm 1,800 mg/m3	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (10 2016)
	TWA PEL	300 ppm 1,350 mg/m3	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (10 2016)

Appropriate Engineering Controls

Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment

General information: Ventilation and other forms of engineering controls are preferred for controlling exposures. Respiratory protection may be needed for non-routine or emergency situations.

Eye/face protection: Monogoggles

Skin Protection

Hand Protection: Chemical resistant gloves

Other: Wear rubber apron. Wear suitable protective clothing and eye/face protection.

Respiratory Protection: 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).

Hygiene measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned.

9. Physical and chemical properties

Appearance

Physical state: liquid
Form: liquid
Color: Colorless
Odor: Faint
Odor threshold:
pH: Not applicable
Melting point/freezing point: No data available.

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Initial boiling point and boiling range:	ca. 156 °C
Flash Point:	55 °C
Evaporation rate:	> 1
Flammability (solid, gas):	No data available.
Upper/lower limit on flammability or explosive limits	
Flammability limit - upper (%):	6.0 %(V)
Flammability limit - lower (%):	1.0 %(V)
Explosive limit - upper (%):	No data available.
Explosive limit - lower (%):	No data available.
Heat of combustion:	No data available.
Vapor pressure:	No data available.
Vapor density:	No data available.
Density:	ca. 1.03 g/cm ³
Relative density:	ca. 1.03
Solubility(ies)	
Solubility in water:	Insoluble
Solubility (other):	Soluble in Petroleum Distillate
Partition coefficient (n-octanol/water) Log Pow:	Not determined.
Auto-ignition temperature:	232 °C
Decomposition temperature:	No data available.
SADT:	No data available.
Viscosity, dynamic:	20,500 mPa·s (40 °C)
Viscosity, kinematic:	19,902 mm ² /s (40 °C, calculated)
VOC:	238 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:	Hazardous polymerisation does not occur.
Conditions to avoid:	Keep away from sources of ignition - No smoking.
Incompatible Materials:	Oxidizing agents.

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Hazardous Decomposition Products: Carbon Monoxide. Carbon dioxide. Silicon dioxide. Formaldehyde. This product contains methylpolysiloxanes which can generate formaldehyde at approximately 300 degrees Fahrenheit (150°C) and above, in atmospheres which contain oxygen. Formaldehyde is a skin and respiratory sensitizer, eye and throat irritant, acute toxicant, and potential cancer hazard. A MSDS for formaldehyde is available from Momentive.

11. Toxicological information

Information on likely routes of exposure

Ingestion: 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.
Dermal
Product: ATEmix: 13,333.33 mg/kg
Inhalation
Product: Not classified for acute toxicity based on available data.

Repeated dose toxicity
Product: No data available.

Skin Corrosion/Irritation
Product: No data available.

Serious Eye Damage/Eye Irritation
Product: No data available.

Respiratory or Skin Sensitization

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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):

No carcinogenic components identified

Germ Cell Mutagenicity

In vitro

Product: No data available.

In vivo

Product: No data available.

Reproductive toxicity

Product: No data available.

Specific Target Organ Toxicity - Single Exposure

Product: No data available.

Specific Target Organ Toxicity - Repeated Exposure

Product: No data available.

Aspiration Hazard

Product: No data available.

Other effects: No data available.

12. Ecological information

Ecotoxicity:

Acute hazards to the aquatic environment:

Fish

Product: No data available.

Aquatic Invertebrates

Product: No data available.

Chronic hazards to the aquatic environment:

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Fish

Product: No data available.

Aquatic Invertebrates

Product: No data available.

Toxicity to Aquatic Plants

Product: No data available.

Persistence and Degradability

Biodegradation

Product: No data available.

BOD/COD Ratio

Product: No data available.

Bioaccumulative potential

Bioconcentration Factor (BCF)

Product: No data available.

Partition Coefficient n-octanol / water (log Kow)

Product: Log Kow: Not determined.

Mobility in soil:

No data available.

Known or predicted distribution to environmental compartments

Solvent Naphtha No data available.

Titanium, Bis(ethyl No data available.

acetoacetato)-diispropoxy No data available.

Octamethylcyclotetrasiloxa No data available.

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Other adverse effects:

No data available.

13. Disposal considerations

Disposal instructions:

Disposal should be made in accordance with federal, state and local regulations.

Contaminated Packaging:

Dispose of as unused product.

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14. Transport information

DOT

UN Number:	UN 1993
UN Proper Shipping Name:	Flammable liquids, n.o.s.(Solvent Naphtha, METHYLTRIMETHOXYSILANE)
Transport Hazard Class(es)	
Class:	3
Label(s):	3
Packing Group:	III
Marine Pollutant:	No

IMDG

UN Number:	UN 1993
UN Proper Shipping Name:	FLAMMABLE LIQUID, N.O.S.(Solvent Naphtha, METHYLTRIMETHOXYSILANE)
Transport Hazard Class(es)	
Class:	3
Label(s):	3
EmS No.:	F-E, S-E
Packing Group:	III
Marine Pollutant:	No
Limited quantity	5.00L
Excepted quantity	E1

IATA

UN Number:	UN 1993
Proper Shipping Name:	Flammable liquid, n.o.s.(Solvent Naphtha, METHYLTRIMETHOXYSILANE)
Transport Hazard Class(es):	
Class:	3
Label(s):	3
Packing Group:	III
Cargo aircraft only Packing Instructions:	366
Passenger and cargo aircraft Packing Instructions:	366
Limited quantity:	Y344
Packing Instructions:	
Excepted quantity	E1
Environmental Hazards:	Not regulated.
Marine Pollutant:	No

Special precautions for user:

This product is considered flammable for transportation. It has been reclassified as combustible by ground transportation per 49CFR173.120(b)(2). This product must be classified as flammable when transported by vessel or aircraft.

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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.

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

Hazards Not Otherwise Classified (HNOC)
Flammable (gases, aerosols, liquids, or solids)
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>
Solvent Naphtha	10000 lbs
Titanium, Bis(ethyl acetoacetato)-diispropoxy	10000 lbs
Octamethylcyclotetrasiloxane	10000 lbs

SARA 313 (TRI Reporting)

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

Reproductive Harm - www.P65Warnings.ca.gov

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

Chemical Identity

Siloxanes and Silicones, di-Me hydroxy terminated

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Solvent Naphtha
Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl) -, reaction products with ammonia, octamethylcyclotetrasiloxane and silica
Decamethylcyclopentasiloxane
Methyltrimethoxysilane
Titanium, Bis(ethyl acetoacetato)-diisopropoxy
Octamethylcyclotetrasiloxane

US. Massachusetts RTK - Substance List

Chemical Identity

Solvent Naphtha

US. Pennsylvania RTK - Hazardous Substances

Chemical Identity

Solvent Naphtha

US. Rhode Island RTK

Chemical Identity

Solvent Naphtha

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Inventory Status:

Australia AICS:	y (positive listing)	Remarks: None.
EU EINECS List:	y (positive listing)	Remarks: None.
Japan (ENCS) List:	y (positive listing)	Remarks: None.
China Inv. Existing Chemical Substances:	y (positive listing)	Remarks: None.
Korea Existing Chemicals Inv. (KECI):	y (positive listing)	Remarks: None.
Canada DSL Inventory List:	y (positive listing)	Remarks: None.
Canada NDSL Inventory:	n (Negative listing)	Remarks: None.
Philippines PICCS:	y (positive listing)	Remarks: None.
US TSCA Inventory:	y (positive listing)	Remarks: On TSCA Inventory
Taiwan Chemical Substance Inventory:	y (positive listing)	Remarks: None.
New Zealand Inventory of Chemicals:	n (Negative listing)	Remarks: None.

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

HMIS Hazard ID

Health	<input type="text" value="0"/>
Flammability	<input type="text" value="2"/>
Physical Hazards	<input type="text" value="1"/>
PERSONAL PROTECTION	<input type="text"/>

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

Issue Date: 08/24/2018
Revision Date: No data available.
Version #: 6.0
Further Information: No data available.

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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 of our 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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