Version: 2.0

Date of Issue: 26 April 2017 Date of First Issue: 11 October 2012



www.vishaypg.com

ACCORDING TO OSHA HCS (29 CFR 1910.1200)

SECTION 1: IDENTIFICATION

Product identifier used on the label

3145-RTV

Other means of identification

Not applicable

Recommended use of the chemical and restrictions

on use

Recommended use

Restrictions on use PC1 Adhesives, sealants
Anything other than the above.

Details of the supplier of the safety data sheet

Supplier VISHAY MEASUREMENTS GROUP, INC.

Address of Supplier Post Office Box 27777
Raleigh, NC 27611

USA

 Telephone
 +1 919-365-3800

 Fax
 +1 919-365-3945

 E-Mail (competent person)
 mm.us@vishaypg.com

Emergency telephone number 1-800-424-9300 CHEMTREC (24 hours)

SECTION 2: HAZARD(S) IDENTIFICATION

Classification of the substance or mixture in accordance with paragraph (d) of 29 CFR 1910.1200

Physical hazards Not classified

Health hazards Not classified

Environmental hazards Not classified

Hazard Symbol None assigned.

Signal Word(s) None assigned.

Hazard Statement(s)

None assigned.

Precautionary Statement(s)

None assigned.

Other hazards Repeated exposure may cause skin dryness or cracking. Contact with water or

humid air will form methanol. Product may emit formaldehyde vapour at temperatures above 180° C in the presence of air. Formaldehyde vapour is a suspected carcinogen, toxic by inhalation and irritating to eyes and the

respiratory system. Exposure limits should be strictly respected.

Percent of the mixture consists of ingredient(s) of

unknown acute toxicity:

0%

14001 Page: 1 of 7

Version: 2.0

Date of Issue: 26 April 2017 Date of First Issue: 11 October 2012



www.vishaypg.com

ACCORDING TO OSHA HCS (29 CFR 1910.1200)

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Substances Not applicable

Mixtures Substances in preparations / mixtures

Chemical identity of the substance	%W/W	CAS No.	EC No.	Hazard classification
Trimethylated silica	< 25	68909-20-6	272-697-1	Not classified
Trimethoxy(methyl)silane	5 - 10	1185-55-3	214-685-0	Flammable Liquid, Category 2
Methanol	< 0.2	67-56-1	200-659-6	Flammable Liquid, Category 2 Acute toxicity, Category 4 – Oral Acute toxicity, Category 4 – Dermal Acute toxicity, Category 4 – Inhalation Carcinogen, Category 2 (SCL ≥ 10%) Specific target organ toxicity — single exposure, Category 1 (SCL ≥ 10%)

SECTION 4: FIRST AID MEASURES



Description of first aid measures

Self-protection of the first aider

Use personal protective equipment as required. Wear appropriate personal

protective equipment, avoid direct contact. Ensure adequate ventilation. Avoid breathing vapours. Avoid contact with skin and eyes. Contaminated clothing

should be laundered before reuse.

Inhalation If breathing is difficult, remove victim to fresh air and keep at rest in a position

comfortable for breathing.

Skin Contact Wash skin with soap and water. If skin irritation occurs: Get medical

advice/attention.

Eye Contact Flush eyes with water for at least 15 minutes while holding eyelids open. If eye

irritation persists, get medical advice/attention.

Ingestion Wash out mouth with water and give 200-300 ml (half a pint) of water to drink.

Do not induce vomiting. If symptoms develop, obtain medical attention.

Most important symptoms and effects, both acute

and delayed

Indication of any immediate medical attention and

special treatment needed

Unlikely to be required but if necessary treat symptomatically.

Repeated exposure may cause skin dryness or cracking.

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing media

Suitable Extinguishing Media

Unsuitable extinguishing Media

Special hazards arising from the substance or mixture

As appropriate for surrounding fire. Extinguish with carbon dioxide, dry chemical, foam or waterspray.

Do not use water jet. Direct water jet may spread the fire.

Thermal breakdown of this product during fire or very high heat conditions may evolve the following decomposition products: Silica, Carbon oxides and traces of incompletely burned carbon compounds, Formaldehyde, Sulphur products, Nitrogen products. Product may emit formaldehyde vapour at temperatures above 180°C in the presence of air. Formaldehyde vapour is a suspected carcinogen, toxic by inhalation and irritating to eyes and the respiratory system. Exposure limits should be strictly respected.

Special protective equipment and precautions for fire fighters

Fire fighters should wear complete protective clothing including self-contained breathing apparatus. Do not breathe fumes. Keep containers cool by spraying

14001 Page: 2 of 7

Version: 2.0

Date of Issue: 26 April 2017 Date of First Issue: 11 October 2012



www.vishaypg.com

ACCORDING TO OSHA HCS (29 CFR 1910.1200)

with water if exposed to fire. Avoid run off to waterways and sewers.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Stop leak if safe to do so. Use personal protective equipment as required. See Section: 8. Avoid breathing vapours. Avoid contact with skin and eyes. Avoid release to the environment. Do not allow to enter drains, sewers or watercourses.

Methods and material for containment and cleaning up

Absorb spillage to prevent material damage. Cover spills with inert absorbent material. Neutralize with dilute acid. Ventilate the area and wash spill site after material pick-up is complete.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling

Ensure operatives are trained to minimise exposures. Ensure adequate ventilation. Avoid breathing vapours. In case of inadequate ventilation wear respiratory protection. Wear protective gloves/protective clothing/eye protection/face protection. Avoid contact with skin and eyes. Do not eat, drink or smoke when using this product.

Conditions for safe storage, including any incompatibilities
Storage temperature

Store in a well-ventilated place. Keep away from heat, sources of ignition and direct sunlight. Protect from moisture.

Maximum: 32°C

Stable under normal conditions.

Keep away from: Oxidizing agents and Water. Contact with water or humid air will form methanol.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Limits

Incompatible materials

SUBSTANCE	CAS No.	LTEL (8 hr TWA ppm)	LTEL (8 hr TWA mg/m³)	STEL (ppm)	STEL (mg/m³)	Note
Methanol	67-56-1	200	260	250(1)	325(1)	NIOSH
		200	260	-	-	OSHA
		200	-	250	-	ACGIH, Sk

Note: OSHA PELs 1910.1000 TABLE Z-1/ NIOSH RELs / ACGIH TLVs

Sk - Can be absorbed through skin.

(1) 15 minutes average value

The other components listed in Section 3 do not have occupational exposure limits.

Biological Exposure Indices

SUBSTANCE	CAS No.	Determinant	Biological Exposure Indices	Sampling Time	Note
Methanol	67-56-1	Methanol in Urine	15 mg/l	End of shift	B, Ns

Source: 2015 ACGIH Biological Exposure Indicies (BEIs)

B – Background Ns – Nonspecific

The other components listed in Section 3 do not have biological exposure indicies.

Appropriate engineering controls

Ensure operatives are trained to minimise exposures. Ensure adequate ventilation. Atmospheric levels should be controlled in compliance with the occupational exposure limit.

14001 Page: 3 of 7

Version: 2.0

Date of Issue: 26 April 2017

Date of First Issue: 11 October 2012



www.vishaypg.com

ACCORDING TO OSHA HCS (29 CFR 1910.1200)

Individual protection measures, such as personal protective equipment (PPE)

General hygiene measures for the handling of chemicals are applicable. Keep good industrial hygiene. Avoid contact with skin and eyes. Avoid breathing vapours. Wash hands before breaks and after work. Keep work clothes separately. Do not eat, drink or smoke at the work place. IF exposed: Flush with fresh water if contact with skin or eyes.

Eye/face protection



Wear protective eye glasses for protection against liquid splashes. Wear eye protection with side protection (EN166).

Skin protection



Hand protection:

Wear impervious gloves (EN374). Protective index 6, corresponding > 480 minutes of permeation time according to EN 374 Gloves should be changed regularly to avoid permeation problems. Breakthrough time of the glove material: refer to the information provided by the gloves' producer. Neoprene or rubber gloves are recommended.

Body protection:

Wear suitable coveralls to prevent exposure to the skin.

Respiratory protection



In case of inadequate ventilation wear respiratory protection. Open system(s): Wear suitable respiratory protective equipment. A suitable mask with filter type A (EN141 or EN405) may be appropriate.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance Translucent white paste

Odor Slight
Odor Threshold Not available.
pH Not available.
Melting Point/Freezing Point Not available.
Initial boiling point and boiling range Not available.

Flash Point Not applicable.
Evaporation rate (Butyl acetate = 1) Not applicable.

Flammability (solid, gas)

Upper/lower flammability or explosive limits

Vapour pressure

Vapour density

Relative density

Solubility(ies)

Partition coefficient: p-octapol/water

Non-flammable.

Not applicable.

Not available.

1.12 (H2O = 1)

Insoluble in water.

Not available.

Partition coefficient: n-octanol/water Not available.

Auto-ignition temperature Not available.

Decomposition Temperature Not available.

Viscosity Not available.

SECTION 10: STABILITY AND REACTIVITY

 Reactivity
 This product releases methanol.

 Chemical stability
 Stable under normal conditions.

Possibility of hazardous reactions Contact with water or humid air will form methanol.

Conditions to avoid Protect from moisture.

Incompatible materials Keep away from: Oxidizing agents and Water.

14001 Page: 4 of 7

Version: 2.0

Date of Issue: 26 April 2017 Date of First Issue: 11 October 2012

www.vishaypg.com

ACCORDING TO OSHA HCS (29 CFR 1910.1200)

Hazardous decomposition product(s)

Thermal breakdown of this product during fire or very high heat conditions may evolve the following decomposition products: Silica, Carbon oxides and traces of incompletely burned carbon compounds. Formaldehyde, Sulphur products, Nitrogen products.

SECTION 11: TOXICOLOGICAL INFORMATION

Information on toxicological effects (Substances in preparations / mixtures)

Acute toxicity - Ingestion Based upon the available data, the classification criteria are not met.

Acute Toxicity Estimate Mixture Calculation: Estimated LC50 > 2000 mg/kg

bw/day.

Acute toxicity - Inhalation Based upon the available data, the classification criteria are not met.

> Acute Toxicity Estimate Mixture Calculation: Estimated LC50 > 20.0 mg/l. Based upon the available data, the classification criteria are not met.

Acute toxicity - Skin Contact Acute Toxicity Estimate Mixture Calculation: Estimated LC50 > 2000 mg/kg

bw/day.

Skin corrosion/irritation Repeated exposure may cause skin dryness or cracking.

Serious eye damage/irritation Based upon the available data, the classification criteria are not met. Respiratory or skin sensitization Based upon the available data, the classification criteria are not met. Germ cell mutagenicity Based upon the available data, the classification criteria are not met. Based upon the available data, the classification criteria are not met. Carcinogenicity Reproductive toxicity Based upon the available data, the classification criteria are not met. STOT - single exposure Based upon the available data, the classification criteria are not met. STOT - repeated exposure Based upon the available data, the classification criteria are not met. Aspiration hazard Based upon the available data, the classification criteria are not met.

Information on likely routes of exposure

Inhalation Possible - accidental exposure Ingestion Unlikely - accidental exposure Skin Contact Possible - accidental exposure Eye Contact Unlikely - accidental exposure

Early onset symptoms related to exposure None anticipated

Delayed health effects from exposure Repeated exposure may cause skin dryness or cracking.

Other information

NTP Report on Carcinogens All chemicals are not listed All chemicals are not listed IARC Monographs All chemicals are not listed OSHA Designated Carcinogen

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity Based upon the available data, the classification criteria are not met.

> Estimated Mixture LC50 >100 mg/l (Fish). No adverse effects on bacteria are predicted.

Persistence and degradability Siloxanes are removed from water by sedimentation or binding to sewage

> sludge. Removed > 90% by binding onto sewage sludge. The siloxanes in this product do not contribute to the BOD. In soil, siloxanes are degraded. This product hydrolyses in water or moist air, releasing methanol and organosilicons.

Bioaccumulative potential The product has low potential for bioaccumulation. Mobility in soil The product is predicted to have high mobility in soil.

Other adverse effects None known

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods Dispose of contents in accordance with local, state or national legislation.

14001 Page: 5 of 7

Version: 2.0

Date of Issue: 26 April 2017 Date of First Issue: 11 October 2012



www.vishaypg.com

ACCORDING TO OSHA HCS (29 CFR 1910.1200)

SECTION 14: TRANSPORT INFORMATION

(Not classified according to the United Nations 'Recommendations on the Transport of Dangerous Goods')

ADR/RID IMDG ΙΔΤΔ UN number Not classified Not classified Not classified Not classified Not classified Not classified **UN proper shipping name** Not classified Not classified Not classified Transport hazard class(es) Not classified Not classified Not classified Packing group Not classified **Environmental hazards** Not classified Not classified as a

Not applicable

Marine Pollutant.

Transport in bulk according to Annex II of MARPOL

73/78 and the IBC Code

Special precautions for user See Section: 2

SECTION 15: REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture

US Federal Regulations

TSCA (Toxic Substance Control Act)

Trimethylated silica: Subject to 25,000 lb reporting threshold

Trimethoxy(methyl)silane: Subject to 25,000 lb reporting threshold

Methanol: Subject to 25,000 lb reporting threshold

EPCRA/SARA Section 302 Extremely Hazardous

Substances

EPCRA Section 313 Toxics Release Inventory (TRI)

Program

NIOSH Occupational Carcinogen List
OSHA List of highly hazardous chemicals, toxics and

reactives

NTP Report on Carcinogens (RoC) List

Poison Prevention Packaging Act

US State Regulations

st All chemicals are not listed

Methanol: Substance requiring special packaging

California State, Proposition 65 List

ug/day

California State, Safer Consumer Products Regulations

Maine State, Toxic Chemicals in Children's Products Act New Jersey State Worker and Community RTK Act Pennsylvania State, Worker and Community RTK Act

Rhode Island State, Hazardous Substances RTK Act

Non-Regional

Methanol: Initial Candidate Chemicals List Methanol: COC list

Methanol: CHC list

All chemicals are not listed

All chemicals are not listed

All chemicals are not listed

Methanol: De Minimis limit: 1%

Methanol: RTKHSL. SHHSL

Methanol: Hazardous Substance List. Environmental Hazard List

Methanol: Safe harbor level - MADL: 47000 (inhalation) ug/day, 23000 (oral)

SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements: Updated substance / mixture classification. New SDS Regulation compliant with HazCom 2012 format, all sections have been updated to include new information. Please review SDS with care.

Version 2.0

Revision Date 26 April 2017

Date of First Issue 11 October 2012

References:

Existing Safety Data Sheet (SDS), EU Data: Harmonised Classification(s) for Methanol (CAS No. 67-58-1) and Existing ECHA registration(s) for Trimethoxy(methyl)silane (CAS No. 1185-55-3) and Methanol (CAS No. 67-58-1).

14001 Page: 6 of 7

Date of First Issue: 11 October 2012



ACCORDING TO OSHA HCS (29 CFR 1910.1200)

GHS Classification of the substance or mixture	Classification Procedure		
Not classified	Threshold Calculation		

LEGEND

ACGIH: American Conference of Governmental Industrial Hygienists

BEI: Biological Exposure Indices (ACGIH)

IARC: International Agency for Research on Cancer

Irr: Irritation

NIOSH: National Institute of Occupational Safety and Health

NTP: National Toxicology Program

OSHA: The Occupational Safety & Health Administration

PBT: Persistent, Bioaccumulative and Toxic

PEL: Permissible exposure limit

REL: Recommended exposure limit

SCL: Specific Concentration Limit

Skin": Risk of overexposure via dermal contact

www.vishaypg.com

STEL: Short Term Exposure Limit

TLV: Threshold Limit value

TSCA: Toxic Substance Control Act TWA: Time Weighted Average URT: Upper respiratory tract

vPvB: very Persistent and very Bioaccumulative

Training advice: Consideration should be given to the work procedures involved and the potential extent of exposure as they may determine whether a higher level of protection is required.

Disclaimers

Information contained in this publication or as otherwise supplied to Users is believed to be accurate and is given in good faith, but it is for the Users to satisfy themselves of the suitability of the product for their own particular purpose. Vishay Precision Group gives no warranty as to the fitness of the product for any particular purpose and any implied warranty or condition (statutory or otherwise) is excluded except to the extent that exclusion is prevented by law. Vishay Precision Group accepts no liability for loss or damage (other than that arising from death or personal injury caused by defective product, if proved), resulting from reliance on this information. Freedom under Patents, Copyright and Designs cannot be assumed.

14001 Page: 7 of 7