

| Version 1.3 | | Revision Date: 09/02/2019 | |
|---|---|---------------------------|--|
| SECTION 1. PRODUCT AND COMPANY IDENTIFICATION | | | |
| Product name | : Vinyl Toluene 50 PPM Inhib | | |
| Recommended use of the ch | emical and restrictions on use | | |
| Recommended use | : Monomer Intermediate | | |
| Manufacturer or supplier's de | etails | | |
| Company Address | Univar Solutions USA, Inc. 3075 Highland Pkwy Suite 200 Downers Grove, IL 60515 United States of America (USA) | | |
| Emergency telephone nu Transport North America | · · · · · · · · · · · · · · · · · · · | | |
| | | | |

CHEMTREC INTERNATIONAL Tel # 703-527-3887

| Additional Information: | : Responsible Party: Product Compliance Department E-mail: SDSNA@univarsolutions.com SDS Requests: 1-855-429-2661 Website: www.univarsolutions.com |
|-------------------------|---|
| | Website: www.univarsolutions.com |

SECTION 2. HAZARDS IDENTIFICATION

| GHS Classification | |
|---|--|
| Flammable liquids | : Category 3 |
| Skin irritation | : Category 2 |
| Eye irritation | : Category 2A |
| Germ cell mutagenicity | : Category 1B |
| Specific target organ toxicity - single exposure | : Category 3 (Respiratory system) |
| Aspiration hazard | : Category 1 |
| GHS label elements | |
| Hazard pictograms | |
| Signal word | : Danger |
| Hazard statements | H226 Flammable liquid and vapour. H304 May be fatal if swallowed and enters airways. H315 Causes skin irritation. H319 Causes serious eye irritation. H335 May cause respiratory irritation. |



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| | H340 May cause genetic defects. |
| Precautionary statements | Prevention: P201 Obtain special instructions before use. P202 Do not handle until all safety precautions have been read and understood. 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/ vapours/ spray. P264 Wash skin thoroughly after handling. P271 Use only outdoors or in a well-ventilated area. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. Response: P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor. P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P332 + P313 IF exposed or concerned: Get medical advice/ attention. P337 + P313 If eye irritation persists: Get medical advice/ attention. P337 + P313 If eye irritation persists: Get medical advice/ attention. P362 Take off contaminated clothing and wash before reuse. P370 + P333 Store in a well-ventilated place. Keep container tightly closed. P403 + P233 Store in a well-ventilated place. Keep cool. P405 Store locked up. |
| | Disposal: P501 Dispose of contents/ container to an approved waste dis- posal plant. |
| Other hazards | |

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS



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Substance / Mixture : Substance

Hazardous components

| CAS-No. | Chemical name | Weight percent | |
|--|---------------|----------------|--|
| 25013-15-4 Benzene, ethenylmethyl- 90 - 100 | | | |
| Any Concentration shown as a range is due to batch variation | | | |

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SECTION 4. FIRST AID MEASURES

| General advice | : Show this safety data sheet to the doctor in attendance. Symptoms of poisoning may appear several hours later. |
|-------------------------|--|
| If inhaled | If unconscious, place in recovery position and seek medical advice. If symptoms persist, call a physician. |
| In case of skin contact | If skin irritation persists, call a physician. If on skin, rinse well with water. If on clothes, remove clothes. |
| In case of eye contact | Immediately flush eye(s) with plenty of water. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist. |
| If swallowed | Keep respiratory tract clear. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Take victim immediately to hospital. |

SECTION 5. FIREFIGHTING MEASURES

| Suitable extinguishing media | Alcohol-resistant foam Carbon dioxide (CO2) Dry chemical | |
|---|--|------|
| Unsuitable extinguishing media | High volume water jet | |
| Specific hazards during fire- fighting | Do not allow run-off from fire fighting to enter drains or wa courses. | ater |
| Hazardous combustion prod- ucts | Carbon oxides toxic fumes | |
| Specific extinguishing meth- ods | Collect contaminated fire extinguishing water separately. must not be discharged into drains. Use a water spray to cool fully closed containers. | This |
| Further information | Fire residues and contaminated fire extinguishing water m | nust |



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| | be disposed of in accordance with local regulations. For safety reasons in case of fire, cans should be stored sepa- rately in closed containments. |
| Special protective equipment for firefighters | : Wear self-contained breathing apparatus for firefighting if nec- essary. Use personal protective equipment. |
| ECTION 6. ACCIDENTAL RELEA | SE MEASURES |
| Personal precautions, protec- tive equipment and emer- gency procedures | Use personal protective equipment. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentra- tions. Vapours can accumulate in low areas. |
| Environmental precautions | Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities. |
| Methods and materials for containment and cleaning up | : Contain spillage, and then collect with non-combustible ab- sorbent material, (e.g. sand, earth, diatomaceous earth, ver- miculite) 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 | : Do not spray on a naked flame or any incandescent material. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). Keep away from open flames, hot surfaces and sources of ignition. |
|---|---|
| Advice on safe handling | Avoid formation of aerosol. Do not breathe vapours/dust. Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Take precautionary measures against static discharges. Provide sufficient air exchange and/or exhaust in work rooms. Open drum carefully as content may be under pressure. Dispose of rinse water in accordance with local and national regulations. |
| Conditions for safe storage | No smoking. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Observe label precautions. |



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Electrical installations / working materials must comply with the technological safety standards.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

| CAS-No. | Components | Value type (Form of exposure) | Control parame- ters / Permissible concentration | Basis |
|------------|-------------------------|-------------------------------------|--|-----------|
| 25013-15-4 | Benzene, ethenylmethyl- | TWA | 50 ppm | ACGIH |
| | | STEL | 100 ppm | ACGIH |
| | | TWA | 100 ppm 480 mg/m3 | NIOSH REL |
| | | TWA | 100 ppm 480 mg/m3 | OSHA Z-1 |
| | | TWA | 100 ppm 480 mg/m3 | OSHA P0 |

Personal protective equipment

| Respiratory protection | : | No personal respiratory protective equipment normally re- quired. In the case of vapour formation use a respirator with an ap- proved filter. |
|--------------------------|---|--|
| Hand protection | | |
| Remarks | : | The suitability for a specific workplace should be discussed with the producers of the protective gloves. |
| Eye protection | : | Eye wash bottle with pure water Tightly fitting safety goggles Wear face-shield and protective suit for abnormal processing problems. |
| Skin and body protection | : | Impervious clothing Choose body protection according to the amount and concen- tration of the dangerous substance at the work place. |
| Hygiene measures | : | When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday. |

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

| Appearance | : liquid |
|------------|------------------------------|
| Colour | : Clear, Colorless |
| Odour | : aromatic, hydrocarbon-like |



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| Odour Threshold | : No data available |
|---|--|
| рН | : No data available |
| Freezing Point (Melting point/freezing point) | : -77 °C (-107 °F) |
| Boiling Point (Boiling point/boiling range) | : 168 °C (334 °F) |
| Flash point | : 52.8 °C (127.0 °F) Method: Tag closed cup |
| Evaporation rate | : No data available |
| Flammability (solid, gas) | : No data available |
| Upper explosion limit | : 6.1 %(V) |
| Lower explosion limit | : 1.9 %(V) |
| Vapour pressure | : 1.1 mmHg @ 20 °C (68 °F) |
| Relative vapour density | : 4.1 @ 20 - 25 °C (68 - 77 °F) (Air = 1.0) |
| Relative density | : 0.89 @ 25 °C (77 °F) Reference substance: (water = 1) |
| Density | : 0.89 g/cm3 @ 25 °C (77 °F) |
| Solubility(ies) Water solubility | : insoluble @ 20 °C (68 °F) |
| Solubility in other solvents | : No data available |
| Partition coefficient: n- octanol/water | : No data available |
| Auto-ignition temperature | : 575 °C |
| Thermal decomposition | : No data available |
| Viscosity Viscosity, kinematic | : 0.837 mm2/s @ 20 °C (68 °F) |

SECTION 10. STABILITY AND REACTIVITY

| Reactivity | : No dangerous reaction known under conditions of normal use. |
|--------------------|---|
| Chemical stability | : Stable under normal conditions. |



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| Possibility of hazardous reac- tions | : Polymerisation can occur. |
| Conditions to avoid | : Keep away from heat, flame, sparks and other ignition sources. |
| Incompatible materials | : Peroxides Strong acids Oxidizing agents Copper brass Free radical initiators Copper alloys metal halogenates |
| Hazardous decomposition products | : Carbon oxides |

SECTION 11. TOXICOLOGICAL INFORMATION

Skin corrosion/irritation

Components:

25013-15-4: Species: Rabbit Exposure time: 72 h Result: Irritating to skin.

Serious eye damage/eye irritation

Components:

25013-15-4: Species: Rabbit Result: Irritating to eyes. Exposure time: 72 h

| Carcinogenicity | |
|-----------------|---|
| IARC | No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. |
| OSHA | No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens. |
| NTP | No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP. |



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ACGIH

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

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STOT - single exposure

Product:

Assessment: The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with respiratory tract irritation.

Aspiration toxicity

Product:

Aspiration Toxicity - Category 1

Components:

25013-15-4: May be fatal if swallowed and enters airways.

Further information

Product:

Remarks: Solvents may degrease the skin.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

| Components: | |
|---|---|
| 25013-15-4: Toxicity to fish | : LC50 (Fish): 6.108 mg/l Exposure time: 96 h Remarks: Modeled result from QSAR |
| Toxicity to daphnia and other aquatic invertebrates | : LC50 (Daphnia magna (Water flea)): 1.3 mg/l Exposure time: 48 h Test Type: static test |
| Toxicity to algae | EC50 (Pseudokirchneriella subcapitata (green algae)): 2.6 mg/l Exposure time: 72 h Test Type: Growth inhibition |
| Acute aquatic toxicity- As- sessment | : Toxic to aquatic life. |
| Chronic aquatic toxicity- As- sessment | : This product has no known ecotoxicological effects. |



Version 1.3 Revision Date: 09/02/2019 Persistence and degradability Product: Biodegradability : Biodegradation: 95 % Exposure time: 19 d Remarks: Expected to be biodegradable **Bioaccumulative potential** No data available Mobility in soil No data available Other adverse effects Product: Ozone-Depletion Potential : Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I

| | Substances Remarks: This product neither contains, nor was manufa tured with a Class I or Class II ODS as defined by the U. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A | ac- .S. |
|--|--|------------|
| Additional ecological infor- mation | An environmental hazard cannot be excluded in the even unprofessional handling or disposal. Toxic to aquatic life with long lasting effects. | nt of |

SECTION 13. DISPOSAL CONSIDERATIONS

| Disposal methods Waste from residues | Dispose of in accordance with all applicable local, state and federal regulations. For assistance with your waste management needs - including disposal, recycling and waste stream reduction, contact Uni- var Solutions ChemCare: 1-800-909-4897 |
|--|---|
| Contaminated packaging | Empty remaining contents. Dispose of as unused product. Do not re-use empty containers. Do not burn, or use a cutting torch on, the empty drum. |

SECTION 14. TRANSPORT INFORMATION

DOT (Department of Transportation):

UN2618, VINYLTOLUENES, STABILIZED, 3, III

IATA (International Air Transport Association):



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UN2618, VINYLTOLUENES, STABILIZED, 3, III

IMDG (International Maritime Dangerous Goods):

UN2618, VINYLTOLUENES, STABILIZED, 3, III, Flash Point:52.8 °C(127.0 °F)

Special Notes:: The flash point for this material is greater than 100 F (38 C).
Therefore, in accordance with 49 CFR 173.150(f) non-bulk
containers (<450L or <119 gallon capacity) of this material
may be shipped as non-regulated when transported solely by
land, as long as the material is not a hazardous waste, a ma-
rine pollutant, or specifically listed as a hazardous substance.

SECTION 15. REGULATORY INFORMATION

| WHMIS Classification | : B3: Combustible Liquid |
|----------------------|---|
| | D2B: Toxic Material Causing Other Toxic Effects |

EPCRA - Emergency Planning and Community Right-to-Know Act

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 311/312 Hazards | e Hazard ute Health Hazard ronic Health Hazard | |
|----------------------|---|----------------------------|
| SARA 302 | chemicals in this material are s rements of SARA Title III, Sect | |
| SARA 313 | s material does not contain any own CAS numbers that exceed orting levels established by SA | the threshold (De Minimis) |

Clean Air Act

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).

The following chemical(s) are listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60.489):

25013-15-4 Benzene, ethenylmethyl-

Clean Water Act

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.

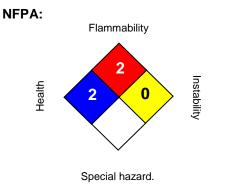
This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307



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| US State Regulations | | |
| Massachusetts Right To Know | | 00 400 % |
| 25013-15-4 | Benzene, ethenylmethyl- | 90 - 100 % |
| Pennsylvania Right To Know 25013-15-4 | Benzene, ethenylmethyl- | 90 - 100 % |
| New Jersey Right To Know 25013-15-4 | Benzene, ethenylmethyl- | 90 - 100 % |
| California Prop 65 | This product does not contain any c of California to cause cancer, birth c productive harm. | |
| The components of this produc | at are reported in the following inve | entories: |
| TSCA : | On TSCA Inventory | |
| DSL : | All components of this product are o | on the Canadian DSL |
| AICS : | On the inventory, or in compliance v | vith the inventory |
| NZIOC : | On the inventory, or in compliance v | vith the inventory |
| ENCS : | On the inventory, or in compliance v | vith the inventory |
| KECI : | On the inventory, or in compliance v | vith the inventory |
| PICCS : | On the inventory, or in compliance v | vith the inventory |
| IECSC : | On the inventory, or in compliance v | vith the inventory |
| | | |

SECTION16. OTHER INFORMATION



HMIS III:



0 = not significant, 1 = Slight,

2 = Moderate, 3 = High

4 =Extreme, * = Chronic

The information accumulated is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made become



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available subsequently to the date hereof, we do not assume any responsibility for the results of its use. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This SDS has been prepared by Univar Solutions Product Compliance Department (1-855-429-2661) SDSNA@univarsolutions.com.

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|---------------|--------------|
| | . 05/02/2015 |

Legacy SDS: : R0003616

Material number:

16099320, 54602, 107274, 74736, 56288, 725630, 103949, 106133, 88944, 73374, 39904, 20368, 505639, 502703, 20370, 20369

| Key or le | gend to abbreviations and acronym | s used in | the safety data sheet |
|-----------|---|-----------|--|
| ACGIH | American Conference of Govern- | LD50 | Lethal Dose 50% |
| | ment Industrial Hygienists | | |
| AICS | Australia, Inventory of Chemical | LOAEL | Lowest Observed Adverse Effect |
| | Substances | | Level |
| DSL | Canada, Domestic Substances List | NFPA | National Fire Protection Agency |
| NDSL | Canada, Non-Domestic Substanc- | NIOSH | National Institute for Occupational |
| | es List | | Safety & Health |
| CNS | Central Nervous System | NTP | National Toxicology Program |
| CAS | Chemical Abstract Service | NZIoC | New Zealand Inventory of Chemi- cals |
| EC50 | Effective Concentration | NOAEL | No Observable Adverse Effect |
| 2000 | | | Level |
| EC50 | Effective Concentration 50% | NOEC | No Observed Effect Concentration |
| EGEST | EOSCA Generic Exposure Scenar- | OSHA | Occupational Safety & Health |
| | io Tool | | Administration |
| EOSCA | European Oilfield Specialty Chem- | PEL | Permissible Exposure Limit |
| | icals Association | | · |
| EINECS | European Inventory of Existing | PICCS | Philippines Inventory of Commer- |
| | Chemical Substances | | cial Chemical Substances |
| MAK | Germany Maximum Concentration Values | PRNT | Presumed Not Toxic |
| GHS | Globally Harmonized System | RCRA | Resource Conservation Recovery Act |
| >= | Greater Than or Equal To | STEL | Short-term Exposure Limit |
| IC50 | Inhibition Concentration 50% | SARA | Superfund Amendments and |
| | | | Reauthorization Act. |
| IARC | International Agency for Research on Cancer | TLV | Threshold Limit Value |
| IECSC | Inventory of Existing Chemical Substances in China | TWA | Time Weighted Average |
| ENCS | Japan, Inventory of Existing and New Chemical Substances | TSCA | Toxic Substance Control Act |
| KECI | Korea, Existing Chemical Inventory | UVCB | Unknown or Variable Composi- tion, Complex Reaction Products, and Biological Materials |
| | Less Than or Equal To | WHMIS | Workplace Hazardous Materials |



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| | | Information System |
|------|--------------------------|--------------------|
| LC50 | Lethal Concentration 50% | |