

SAFETY DATA SHEET



Section 1. Identification

Product Name: VT-40™ (A-Side)

VersaFlex Incorporated

686 S. Adams Street

Kansas City, KS 66105

913.321.9000

Spill, leak, fire, exposure, or accident, call

CHEMTREC day or night

Domestic North America **800.424.9300**

International **703.527.3887**

e-mail: ehs@versaflex.com

Section 2. Hazards Identification

GHS Ratings:

| | |
|------------------|----|
| Flammable liquid | 2 |
| Eye corrosive | 2A |
| Carcinogen | 2 |

Flash point < 23°C and initial boiling point > 35°C (95°F)

Eye irritant: Subcategory 2A, Reversible in 21 days

Limited evidence of human or animal carcinogenicity

GHS Hazards

| | |
|------|------------------------------------|
| H225 | Highly flammable liquid and vapour |
| H319 | Causes serious eye irritation |
| H351 | Suspected of causing cancer |

GHS Precautions

| | |
|----------------|---|
| 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/light/.../equipment |
| P242 | Use only non-sparking tools |
| P243 | Take precautionary measures against static discharge |
| P264 | Wash exposed skin thoroughly after handling |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection |
| P281 | Use personal protective equipment as required |
| P303+P361+P353 | IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower |

| | |
|----------------|---|
| P305+P351+P338 | IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing |
| P308+P313 | IF exposed or concerned: Get medical advice/attention |
| P337+P313 | Get medical advice/attention |
| P370+P378 | In case of fire: Use foam, CO2 or dry powder for extinction (water may be used in copious quantities) |
| P405 | Store locked up |
| P403+P235 | Store in a well ventilated place. Keep cool |
| P501 | Dispose of contents/container in accordance with applicable regional, national and local laws and regulations. |

Danger



Section 3. Composites/Information on Ingredients

| Chemical Name / CAS No. | OSHA Exposure Limits | ACGIH Exposure Limits | Other Exposure Limits |
|--|--|---|-----------------------|
| tert-Butyl acetate 540-88-5 40 to 50% Vapor Pressure: 63 hPa at 25°C | PELs - 200 ppm TWA PELs - 950 mg/m ³ TWA | OELs not established | |
| Methyl ethyl ketone 78-93-3 20 to 30% Vapor Pressure: 101 hPa at 20°C | PELs - 200 ppm TWA PELs - 590 mg/m ³ TWA | TLV - 300 ppm STEL TLV - 200 ppm TWA TLV - 2 mg/L Medium: urine Time: end of shift Parameter: MEK (nonspecific) | |
| Trade Secret 10 to 20% | OELs not established | OELs not established | |
| Carbon black 1333-86-4 5 to 10% | PELs - 3.5 mg/m ³ TWA | TLV - 3 mg/m ³ TWA (inhalable fraction) | |
| Glycidoxypropyltrimethoxysilane 2530-83-8 1 to 5% | OELs not established | OELs not established | |
| Titanium dioxide 13463-67-7 1 to 5% | PELs - 15 mg/m ³ TWA (total dust) | TLV - 10 mg/m ³ TWA | |

Section 4. First-aid Measures

Move exposed person to fresh air. If breathing is labored, oxygen should be administered by qualified personnel.

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.

After contact with skin, wash immediately with plenty of warm, soapy water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Provided the patient is conscious, wash out mouth with water. Get medical attention if symptoms appear.

Section 5. Fire-fighting Measures

Extinguishing Media: Water, Foam, CO2 or dry powder.

Caution:

Container may rupture from gas generation in a fire situation. Violent steam generation or eruption may occur upon application of direct water stream to hot liquids. When product is stored in closed containers, a flammable atmosphere can develop.

Electrically ground and bond all equipment. Flammable mixtures of this product are readily ignited even by static discharge. Vapors are heavier than air and may travel a long distance and accumulate in low lying areas. Ignition and/or flash back may occur. Flammable mixtures may exist within the vapor space of containers at room temperature.

Hazardous decomposition products:

During a fire, smoke may contain the original material in addition to combustion products of varying composition, which may be toxic and/or irritating. Combustion products may include and are not limited to: Carbon monoxide. Carbon dioxide.

Special protective actions for fire-fighters:

Promptly isolate the scene by removing all persons from the vicinity of the incident, if there is a fire. No action shall be taken involving any personal risk or without suitable training. Water may not be effective in extinguishing fire. Use water spray to cool fire exposed containers and fire affected zone until fire is out and danger of material reigniting has passed.

Special protective equipment for fire-fighters:

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. PVC boots, gloves, safety helmet and protective clothing should be worn.

Section 6. Accidental Release Measures

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Keep personnel out of low areas. Do not touch or walk through spilled material. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and Storage

Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Do not get into eyes.

Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and may be hazardous.

Ground and bond all containers and handling equipment. If pumping, utilize explosion-proof equipment.

Containers, even those that have been emptied, can contain vapors. Do not cut, drill, grind, weld, or perform similar operations on or near empty containers. Keep away from heat, sparks and flame. Do not smoke during handling of this material.

Material is to be stored in accordance with local regulations. Store in original container protected from direct sunlight in a dry and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers.

Use appropriate containment to avoid environmental contamination.

Flammable mixtures may exist within the vapor space of containers at room temperature. Keep container closed. Minimize sources of ignition, such as static build-up, heat, spark or flame. Do not smoke in storage area.

Unsuitable containers: Do not store in containers made of aluminum, copper, copper alloys or galvanized surfaces.

Section 8. Exposure Controls/Personal Protection

| Chemical Name / CAS No. | OSHA Exposure Limits | ACGIH Exposure Limits | Other Exposure Limits |
|--|--|---|-----------------------|
| tert-Butyl acetate 540-88-5 | PELs - 200 ppm TWA PELs - 950 mg/m ³ TWA | OELs not established | |
| Methyl ethyl ketone 78-93-3 | PELs - 200 ppm TWA PELs - 590 mg/m ³ TWA | TLV - 300 ppm STEL TLV - 200 ppm TWA TLV - 2 mg/L Medium: urine Time: end of shift Parameter: MEK (nonspecific) | |
| Trade Secret N/A | OELs not established | OELs not established | |
| Carbon black 1333-86-4 | PELs - 3.5 mg/m ³ TWA | TLV - 3 mg/m ³ TWA (inhalable fraction) | |
| Glycidoxypropyltrimethoxysilane 2530-83-8 | OELs not established | OELs not established | |
| Titanium dioxide 13463-67-7 | PELs - 15 mg/m ³ TWA (total dust) | TLV - 10 mg/m ³ TWA | |

Engineering Controls: Use only with adequate ventilation.

Ventilation: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Protective Gear: In case of inadequate ventilation, wear respiratory protection. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Chemical-resistant, impervious gloves should be worn when handling this material. Preferred glove barrier materials include: Butyl rubber. Ethyl vinyl alcohol laminate ("EVAL"). Acceptable glove barrier materials include: Natural rubber ("latex"). Neoprene. Nitrile/butadiene rubber ("nitrile" or "NBR"). Polyvinyl chloride ("PVC" or "vinyl").

NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors, such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications produced by the glove supplier.

Safety eyewear should be used to avoid exposure to liquid splashes and mists. Goggles are the preferred eyewear safety for this material.

Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Section 9. Physical and Chemical Properties

| | |
|---|--|
| <p>Appearance: As Color Specified</p> <p>Vapor Pressure: No Data</p> <p>pH: No Data</p> <p>Freezing point: No Data</p> <p>Evaporation rate: No Data</p> <p>Explosive Limits: No Data</p> <p>Vapor Density: No Data</p> <p>Solubility: No Data</p> <p>Boiling range: No Data</p> <p>Decomposition temperature: No Data</p> <p>% Weight Volatile (VOC) 58.00</p> | <p>Odor: Characteristic</p> <p>Odor threshold: No Data</p> <p>Melting point: No Data</p> <p>Flash point: 21°F,-6°C</p> <p>Flammability: No Data</p> <p>Vapor pressure: No Data</p> <p>Specific Gravity 1.098</p> <p>Partition coefficient (n- octanol/water): No Data</p> <p>Autoignition temperature: No Data</p> <p>Viscosity: N/A</p> |
|---|--|

Section 10. Stability and Reactivity

Chemical Stability: Stable at room temperature. No specific test data related to reactivity is available for this product or its ingredients.

Hazardous reactions: None known. Stable under normal conditions.

Section 11. Toxicological Information

Inhalation Toxicity LC50: 8mg/L

Routes of Entry

Inhalation Eye Contact

T

arget Organs

Eyes Respiratory System

Effects of Overexposure

Carcinogenicity

| <u>CAS Number</u> | <u>Description</u> | <u>% Weight</u> | <u>Carcinogen Rating</u> |
|-------------------|--------------------|-----------------|--------------------------|
| 1333-86-4 | Carbon black | 5 to 10% | Carbon black: |
| 13463-67-7 | Titanium dioxide | 1 to 5% | Titanium dioxide: |

Section 12. Ecological Information

Only component information is listed, if any. No testing has been performed on this mixture as it relates to ecological impact.

Component Ecotoxicity

Methyl ethyl ketone

96 Hr LC50 Pimephales promelas: 3130 - 3320 mg/L [flow-through]; 48 Hr EC50 Daphnia magna: >520 mg/L; 48 Hr EC50 Daphnia magna: 5091 mg/L; 48 Hr EC50 Daphnia magna: 4025 - 6440 mg/L [Static]

Section 13. Disposal Considerations

The generation of waste should be avoided or minimized by using excess product in an alternate, beneficial application wherever possible.

Empty containers may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. 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. Avoid dispersal of spilled material, runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Section 14. Transport Information

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

| <u>Agency</u> | <u>Proper Shipping Name</u> | <u>UN Number</u> | <u>Packing Group</u> | <u>Hazard Class</u> |
|---------------|--|------------------|----------------------|---------------------|
| DOT | Flammable Liquid, n.o.s. "Methyl ethyl ketone" | UN1993 | II | 3 |
| IATA | Flammable Liquid, n.o.s. "Methyl ethyl ketone" | UN1993 | II | 3 |
| IMDG | Flammable Liquid, n.o.s. "Methyl ethyl ketone" | UN1993 | II | 3 |

Section 15. Regulatory Information

State of California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): WARNING!

This product contains the following chemicals which are listed by the State of California as carcinogenic or a reproductive toxin:

- 13463-67-7 Titanium dioxide 1 to 5 % Cancer
- 1333-86-4 Carbon black 5 to 10 % Cancer

CERCLA Reportable Quantities

If listed below, a reportable quantity (RQ) applies to the product based on the percent of the named component:

- 78-93-3 Methyl ethyl ketone 20 to 30 %
- 540-88-5 tert-Butyl acetate 40 to 50 %

SARA Title III Section 313 Reportable Substances

If listed below, components are subject to the reporting requirements of Section 313 of Title II of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR Part 372:

- None

Toxic Substances Control Act (TSCA)

If listed below, non-proprietary substances are subject to export notification under Section 12 (b) of TSCA:

- None



WHMIS Symbol(s)

Section 16. Other Information

The customer is responsible for determining the proper PPE code for this material within their respective process.

Hazardous Material Information System (HMIS)

| | |
|---------------------|---|
| HEALTH | 3 |
| FLAMMABILITY | 3 |
| PHYSICAL HAZARD | 0 |
| PERSONAL PROTECTION | X |

HMIS & NFPA Hazard Rating

Legend

* = Chronic Health Hazard

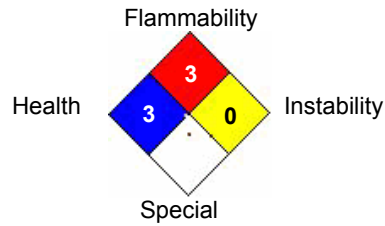
0 = INSIGNIFICANT

1 = SLIGHT

2 = MODERATE

3 = HIGH

National Fire Protection Association (NFPA)



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Reviewer Revision 5

Notice to reader:

While the information and recommendations in this publication are to the best of our knowledge, information and belief accurate at the date of publication, NOTHING HEREIN IS TO BE CONSTRUED AS A WARRANTY, EXPRESS OR OTHERWISE.

IN ALL CASES, IT IS THE RESPONSIBILITY OF THE USER TO DETERMINE THE APPLICABILITY OF SUCH INFORMATION AND RECOMMENDATIONS AND THE SUITABILITY OF ANY PRODUCT FOR ITS OWN PARTICULAR PUPOSE.

THE PRODUCT MAY PRESENT HAZARDS AND SHOULD BE USED WITH CAUTION. WHILE CERTAIN HAZARDS ARE DESCRIBED IN THIS PUBLICATION, NO GUARANTEE IS MADE THAT THESE ARE THE ONLY HAZARDS THAT EXIST.

Hazards, toxicity and behavior of the products may differ when used with other materials and are dependent upon the manufacturing circumstances or other processes. Such hazards, toxicity and behavior should be determined by the user and made known to handlers, processors and end users.