



Safety Data Sheet
FOR INDUSTRIAL USE ONLY
TD SAND

Section 1. Product and company identification

Product Name: TD Sand

SDS Number: 970AD169

Product Type: Vinyl Ester

Product Use: Industrial

Manufacturer, Importer, Supplier: Tru-Design, LLC
7741 Maynardville Hwy
Knoxville, TN. 37938
E-Mail: info@trudesign.net

Telephone: **For Emergency Transportation Information**
CHEMTREC US Domestic (800) 424-9300
CHEMTREC International (703) 527-3887

For additional health and safety or regulatory information, call 1 847-836-3627.

Section 2. Hazard(s) identification

EMERGENCY OVERVIEW: May cause sensitization by inhalation and skin contact. Risk of serious damage to the lungs (by aspiration).

GHS Classification

Acute Tox. 4 Inhalation, Carc. 2, Eye Irrit. 2, Flam. Liq. 3, Skin Irrit. 2, Skin Sens. 1, STOT RE 1, STOT SE 3 RTI

Symbol(s) of Product



Signal Word

Warning

Possible Hazards

2% of the mixture consists of ingredient(s) of unknown acute toxicity

GHS HAZARD STATEMENTS

STOT, single exposure, category 3, NE	H336	May cause drowsiness or dizziness.
STOT, single exposure, category 3, RTI	H335	May cause respiratory irritation.
Skin Irritation, category 2	H315	Causes skin irritation.
Skin Sensitizer, category 1	H317	May cause an allergic skin reaction.

GHS LABEL PRECAUTIONARY STATEMENTS

P201	Obtain special instructions before use.
P210	Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P264	Wash ... thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P281	Use personal protective equipment as required.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
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.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P321	Specific treatment (see ... on this label).
P332+P313	If skin irritation occurs: Get medical advice/attention.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P337+P313	If eye irritation persists: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P370+P378	In case of fire: Use dry chemical, foam, water spray to extinguish.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P403+P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
P501	Dispose of contents/container to in accordance with local/regional/national/international regulations.

GHS SDS PRECAUTIONARY STATEMENTS

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.
P363	Wash contaminated clothing before reuse.

3. Composition/Information on ingredients

Chemical Name	CAS-No.	Wt. %	GHS Symbols	GHS Statements
Styrene	100-42-5	23.92	GHS02-GHS07- GHS08	H226-304-315-319-332-335-336 -351
METHYL ETHYL KETONE	78-93-3	10 - 20	GHS02-GHS07	H225-319-332-336
Hydroxyethyl Methacrylate	868-77-9	1.0-5.0	GHS07	H315-317-319
LIGHT AROMATIC NAPHTHA	64742-95-6	0.1-1.0	GHS07-GHS08	H304-332
COBALT 2-ETHYLHEXANOATE, 12% COBALT	136-52-7	0.1-1.0	GHS07-GHS08	H304-317-319-361

The text for GHS Hazard Statements shown above (if any) is given in the "Other information" Section.

4. First-aid measures

FIRST AID - EYE CONTACT: If symptoms persist, call a physician. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

FIRST AID - INGESTION: Aspiration hazard if swallowed - can enter lungs and cause damage. If ingested, consult a physician. Do NOT induce vomiting.

FIRST AID - INHALATION: Give oxygen or artificial respiration if needed. Remove person to fresh air. If signs/symptoms continue,

his own. If breathing is difficult, give oxygen. Seek medical attention immediately.

FIRST AID - SKIN CONTACT: Immediately flush with water for at least 15 minutes. Remove contaminated clothing. Seek medical attention immediately. Wash thoroughly after handling.

Section 5. Fire-fighting measures

Extinguishing Media:

Suitable Dry Chemical, CO₂, Water Fog/Mst, Foam
Not suitable Water Jet

SPECIAL FIREFIGHTING PROCEDURES: Use full protective clothing. Use a properly-fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Do not use a solid water stream as it may scatter and spread fire. Cool containers/tanks with water spray. In case of fire: Use carbon dioxide, dry chemical foam, water fog to extinguish. Vapors may be ignited by heat, pilot lights, other flames and ignition sources. Self-accelerating decomposition may occur if the specific control temperature is not maintained. Vapors may accumulate in confined areas (basement, tanks, hopper/tank

cars, etc.). **UNUSUAL FIRE AND EXPLOSION HAZARDS:** No Information

Section 6. Accidental release measures

ENVIRONMENTAL MEASURES: 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).

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Dike to prevent entering any sewer or waterway. Transfer liquid to a holding container. Avoid breathing vapor or mists. Use non-sparking tools and equipment. Ensure adequate ventilation. Evacuate personnel to safe areas. Remove all sources of ignition. Do not flush into surface water or sanitary sewer system. 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).

PRECAUTIONARY MEASURES: No information

Section 7. Handling and storage



HANDLING: Wash contaminated clothing before reuse. Avoid contact with skin, eyes and clothing. Ground/bond container and equipment. Wear personal protective equipment. Use only in well-ventilated areas. Keep away from heat and sources of ignition. Do not breathe vapors, mist or gas.

STORAGE: Store contents under 100F (37.8C). Store drums with bung in the upright position. Electrical equipment must be grounded; suitable for the classification of the area where it is installed and conform to the National Electric Code (see NFPA 70). Store in cool well ventilated space away from incompatible materials. Keep container closed when not in use. Store and dispose according to national, state and local regulations

HYGIENIC PRACTICES: When using do not eat, drink, or smoke. Regular cleaning of equipment, work area and clothing. General industrial hygiene practice. Wash hands before eating, drinking, or smoking.

WORK PRACTICES: Put on appropriate personal protective equipment. Wash hands after handling chemicals and before eating, drinking, or smoking. Read and understand entire SDS before handling chemical.

SPECIAL HANDLING PROCEDURES: Put on appropriate personal protective equipment. Eating, drinking, and smoking should be prohibited in areas where this material is handled, stored, and processed. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use.

Section 8. Exposure controls/personal protection

Ingredients with Occupational Exposure Limits

Chemical Name	ACGIH TLV-TWA	ACGIH-TLV STEL	OSHA PEL-TWA	OSHA CEILING
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Styrene	20 ppm	40 ppm	100 ppm	200 ppm
Methyl Ethyl Ketone	200 ppm	300 ppm	200 ppm	N.E.
Hydroxyethyl Methacrylate	N.E.	N.E.	N.E.	N.E.
Light Aromatic Naphtha	N.E.	N.E.	N.E.	N.E.
Cobalt 2-Ethylhexanoate, 12%	N.E.	N.E.	N.E.	N.E.
Cobalt				

Further Advice: MEL = Maximum Exposure Limit OES = Occupational Exposure Standard SUP = Supplier's Recommendation
 Sk = Skin Sensitizer N.E. = Not Established

Personal Protection



RESPIRATORY PROTECTION: When concentrations exceed the exposure limits specified, use of a NIOSH-approved dist, mist and fume respirator is recommended. Where the protection factor of the respirator may be exceeded, use of a full facepiece, supplied air, or Self Contained Breathing Apparatus (SCBA) may be necessary. Use a properly-fitted air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. 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



SKIN PROTECTION: Wear suitable protective equipment. Wear chemical resistant footwear and clothing such as gloves, an apron or a whole body suit as appropriate.



EYE PROTECTION: Ensure that eyewash stations and safety showers are close to the workstation location. Safety glasses with side-shields. Wear chemical-resistant glasses and/or goggles and a face shield when eye and face contact is possible due to splashing or spraying of material.



OTHER PROTECTIVE EQUIPMENT: Use good hygiene practices. Wash face and hands before eating, drinking, and smoking. Eye wash and safety showers should be readily available.



HYGIENIC PRACTICES: When using do not eat, drink or smoke. Regular cleaning of equipment, work area and clothing. General industrial hygiene practice. Wash hands before eating, drinking, or smoking.

Section 9. Physical and Chemical Properties

Color:	Translucent	Physical State:	Liquid
Odor:	Moderate aromatic	Odor Threshold:	Not Available
Density, g/cm³:	1.227	pH:	Not Available
Freeze Point, °C:	Not Available Not	Viscosity:	Not Available
Solubility in Water:	Insoluble	Partition Coefficient, n-octanol/water:	Not Available
Decomposition Temp., °C:	Not Available	Flash Point, °C / F°	26 / 79
Boiling Range, °C:	100	Explosive Limits, vol%:	Not Available
Vapor Pressure:	Not Available	Auto-ignition Temp., °C:	Not Available

(See "Other information" Section for abbreviation legend)

Section 10. Stability and reactivity

STABILITY: The product is normally supplied in a stabilized form. If the permissible storage period and/or storage temperature is noticeably exceeded, the product may polymerize with heat evolution. Stable under normal conditions.

CONDITIONS TO AVOID: Avoid improper addition of promoter and/or catalyst. Avoid direct contact of MEKP catalyst with accelerator. If adding accelerator like cobalt drier, mix accelerator with base material before adding catalyst. Burning may produce obnoxious and toxic fumes. Hazardous polymerization may occur. Keep product away from heat, sparks, pilot lights, static electricity

INCOMPATIBILITY: Free radical initiators. Copper. Strong acids. Metak salts. Strong oxidizing and reducing agents.

HAZARDOUS DECOMPOSITION PRODUCTS: None under normal use

Section 11. Toxicological information



Practical Experiences

EFFECT OF OVEREXPOSURE - EYE CONTACT: Exposure may cause mild irritation. Symptoms may include stinging, tearing, and redness.

EFFECT OF OVEREXPOSURE - INGESTION: May cause severe gastrointestinal disturbance with headache, nausea, vomiting, and diarrhea.

EFFECT OF OVEREXPOSURE - INHALATION: Inhalation may cause irritation to respiratory tract (nose, mouth, mucous membranes). Prolonged, repeated or high exposures may cause central nervous system depression leading to headaches, nausea, drowsiness, dizziness, and possible narcosis. In extreme cases, may cause loss of consciousness. Exposure to component solvent vapor concentrations in excess of the stated occupational exposure limit may result in adverse health effect, such as mucous membrane and respiratory system irritation and adverse effect on kidney, liver and central nervous system. Ingestion of large doses may cause headaches, dizziness, nausea, vomiting, and drowsiness. Irritating to skin.

EFFECT OF OVEREXPOSURE - SKIN CONTACT: Prolonged contact may cause irritation and/or redness.

EFFECT OF OVEREXPOSURE - CHRONIC HAZARDS: Repeated or prolonged exposure may cause central nervous system damage. Prolonged skin contact may defat the skin and produce dermatitis. Prolonged or repeated exposure may cause liver and kidney effects.

CARCINOGENICITY: * This product contains the following chemicals classified by the International Agency for Research on Cancer (IARC) as 1, 2A, or 2B carcinogens:

*This product may contain a chemical which is listed in the NTP report on carcinogens.

PRIMARY ROUTE(S) OF ENTRY: Eye Contact, Ingestion, Inhalation, Skin Contact. **Acute Toxicity Values**

The acute effects of this product have not been tested. Data on individual components are tabulated below.

CAS-No.	Name according to EEC	Oral LD50	Dermal LD50	Vapor LC50
100-42-5	Styrene	5000 mg/kg Rat	>2000 mg/kg	2770 mg/L Rat 4 h
79-93-3	Methyl Ethyl Ketone	2483 mg/kg Rat	5000 (rabbit)	N.I.
868-77-9	Hydroxyethyl Methacrylate	5050 mg/kg Rat	>3000 mg/kg Rabbit	N.I.
6474295-6	Light Aromatic Naphtha	8400 mg/kg Rat	>2000 mg/kg Rabbit	N.I.
136-52-7	Cobalt 2-Ethylhexanoate, 12 % Cobalt	N.I.	>5000 mg/kg Rabbit	N.I.

N.I. - No Information

Section 12. Ecological information

ECOLOGICAL INFORMATION: Ecological evaluation of this material has not been performed; however, do not allow the product to be released to the environment without governmental approval/permits. Discharge into the environment must be avoided.

Section 13. Disposal considerations



DISPOSAL METHOD: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should always comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains, and sewers.

Section 14. Transport information

SPECIAL TRANSPORT PRECAUTIONS: No Information

International transport regulations

Regulatory Information:	UN/NA Number	Proper Shipping Name	Classes/ *PG	Reportable Quantity (RQ)
CFR	UN1866	RESIN SOLUTION	Class 3 PGIII	
IMO/IMDG	UN1866	RESIN SOLUTION	Class 3 PGIII	
IATA	UN1866	RESIN SOLUTION	Class 3 PGIII	

International transport regulations

Regulatory Information:	UN/NA Number	Proper Shipping Name	Classes/ *PG	Reportable Quantity (RQ)
CFR	UN1866	RESIN SOLUTION	Class 3 PGIII	
IMO/IMDG	UN1866	RESIN SOLUTION	Class 3 PGIII	
IATA	UN1866	RESIN SOLUTION	Class 3 PGIII	

15. Regulatory information**U.S. Federal Regulations:****CERCLA - SARA Hazard Category**

This product has been reviewed according to the EPA 'Hazard Categories' promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

<u>Chemical Name</u>	<u>CAS-No.</u>
Styrene	100-42-5
METHYL ETHYL KETONE	78-93-3

SARA SECTION 313:

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR part 372:

<u>Chemical Name</u>	<u>CAS-No.</u>
Styrene	100-42-5

TOXIC SUBSTANCES CONTROL ACT:

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(B) if exported from the United States:

No TSCA components exist in this product.

U.S. State Regulations:**NEW JERSEY RIGHT-TO-KNOW:**

The following hazardous materials are listed.

<u>Chemical Name</u>	<u>CAS-No.</u>
Styrene	100-42-5
METHYL ETHYL KETONE	78-93-3
MINERAL SPIRITS(PETROLEUM NAPHTHA)	64742-88-7
1,2,4-Trimethylbenzene	95-63-6
Benzenamine, N,N-dimethyl-	121-69-7
MINERAL SPIRITS (STODDARD TYPE)	8052-41-3
Ethylbenzene	100-41-4
Medium Aliphatic Solvent Naphtha (petroleum)	64742-88-7
CUMENE	98-82-8
Xylene	1330-20-7
DIPROPYLENE GLYCOL MONOMETHYL ETHER	34590-94-8
Cumene	98-82-8
STYRENE MONOMER	100-42-5
Ethylene Glycol Monobutyl Ether	111-76-2
HYDROQUINONE	123-31-9
ISOPROPYL ALCOHOL	67-63-0
MINERAL SPIRITS	8032-32-4
Toluene	108-88-3
ETHYLBENZENE	100-41-4

PENNSYLVANIA RIGHT-TO-KNOW

The following hazardous ingredients are present:

<u>Chemical Name</u>	<u>CAS-No.</u>
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Styrene	100-42-5
METHYL ETHYL KETONE	78-93-3
1,2,4-Trimethylbenzene	95-63-6
Benzenamine, N,N-dimethyl-	121-69-7
MINERAL SPIRITS (STODDARD TYPE)	8052-41-3
DIETHYLENE GLYCOL	111-46-6
Ethylbenzene	100-41-4
CUMENE	98-82-8
Xylene	1330-20-7
DIPROPYLENE GLYCOL MONOMETHYL ETHER	34590-94-8
Cumene	98-82-8
STYRENE MONOMER	100-42-5
Ethylene Glycol Monobutyl Ether	111-76-2
HYDROQUINONE	123-31-9
ISOPROPYL ALCOHOL	67-63-0
MINERAL SPIRITS	8032-32-4
Toluene	108-88-3
ETHYLBENZENE	100-41-4

U.S. State Regulations:**MASSACHUSETTS RIGHT-TO-KNOW:**

The following hazardous materials are listed.

<u>Chemical Name</u>	<u>CAS-No.</u>
Styrene	100-42-5
METHYL ETHYL KETONE	78-93-3
1,2,4-Trimethylbenzene	95-63-6
Benzenamine, N,N-dimethyl-	121-69-7
MINERAL SPIRITS (STODDARD TYPE)	8052-41-3
Ethylbenzene	100-41-4
CUMENE	98-82-8
Xylene	1330-20-7
DIPROPYLENE GLYCOL MONOMETHYL ETHER	34590-94-8
Cumene	98-82-8
STYRENE MONOMER	100-42-5
Ethylene Glycol Monobutyl Ether	111-76-2
HYDROQUINONE	123-31-9
ISOPROPYL ALCOHOL	67-63-0
Toluene	108-88-3
ETHYLBENZENE	100-41-4

CALIFORNIA PROPOSITION 65 CARCINOGENS

Warning: This product contains a chemical known to the state of California to cause cancer.

<u>Chemical Name</u>	<u>CAS-No.</u>
Styrene	100-42-5
CARBON BLACK	1333-86-4
Ethylbenzene	100-41-4
CUMENE	98-82-8
Cumene	98-82-8
STYRENE MONOMER	100-42-5
ETHYLBENZENE	100-41-4

CALIFORNIA PROPOSITION 65 REPRODUCTIVE TOXINS

Warning: This product contains a chemical known to the state of California to cause birth defects or other reproductive harm.

<u>Chemical Name</u>	<u>CAS-No.</u>
Toluene	108-88-3

International Regulations

Chemical Inventories	Australia inventory (AICS)	Not listed
	Canada inventory (DSL)	Not listed
	Japan Inventory (ENCSC)	Not listed
	China Inventory (IECSC)	Not listed
	Korea Inventory (KECI)	Not listed
	New Zealand (NZIoC)	Not listed
	Philippines (PICCS)	Not listed
	United States Inventory (TSCA 8b)	All components are listed or exempted

16. Other information

Revision Date:	4/6/2018	Supersedes Date:	New SDS
Reason for revision:	No Information		
Datasheet produced by:	Regulatory Department		

HMIS Ratings:

Health:	2*	Flammability:	3	Reactivity:	2	Personal Protection:	N.I.	Chronic Rating:	*
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Text for GHS Hazard Statements shown in Section 3 describing each ingredient:

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H351	Suspected of causing cancer.
H361	Suspected of damaging fertility or the unborn child.

Icons for GHS Pictograms shown in Section 3 describing each ingredient:

Icons for GHS Pictograms shown in Section 3 describing each ingredient:

GHS02



GHS07



GHS08



Legend: N.A. - Not Applicable, N.E. - Not Established, N.D. - Not Determined, N.I. - No Information

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