



## Safety Data Sheet

Revision Date: 08/26/19

www.restek.com

2 Letter ISO country code/language code: US/EN

### 1. IDENTIFICATION

**Catalog Number / Product Name:** 30007 / VOA Calibration Mix #2  
**Company:** Restek Corporation  
**Address:** 110 Benner Circle  
Bellefonte, Pa. 16823  
**Phone#:** 814-353-1300  
**Fax#:** 814-353-1309  
**Emergency#:** 800-424-9300 (CHEMTREC)  
703-527-3887 (Outside the US)  
**Email:** www.restek.com  
**Revision Number:** 10  
**Intended use:** For Laboratory use only

### 2. HAZARD(S) IDENTIFICATION

#### Emergency Overview:

**GHS Hazard Symbols:**



**GHS Classification:** Germ Cell Mutagenicity Category 1B  
Carcinogenicity Category 1A  
Specific Target Organ Systemic Toxicity (STOT) - Single Exposure Category 1  
Flammable Liquid Category 2  
Specific Target Organ Systemic Toxicity (STOT) - Repeated Exposure Category 2  
Acute Toxicity - Dermal Category 3  
Acute Toxicity - Oral Category 3

**GHS Signal Word:** Danger

**GHS Hazard:** Highly flammable liquid and vapour.  
Toxic if swallowed or in contact with skin.  
May cause genetic defects.  
May cause cancer.  
Causes damage to organs.  
May cause damage to organs through prolonged or repeated exposure.

**GHS Precautions:**

**Safety Precautions:** Obtain special instructions before use.  
Do not handle until all safety precautions have been read and understood.  
Keep away from heat/sparks/open flames/hot surfaces. – No smoking.  
Keep container tightly closed.  
Ground/bond container and receiving equipment.  
Use explosion-proof electrical/ventilation and lighting equipment.  
Use only non-sparking tools.  
Take precautionary measures against static discharge.  
Do not breathe dust/fume/gas/mist/vapours/spray.  
Wash hands and skin thoroughly after handling.  
Do not eat, drink or smoke when using this product.  
Wear protective gloves/protective clothing/eye protection/face protection.

**First Aid Measures:** IF SWALLOWED: Immediately call a POISON CENTER/doctor/....  
IF ON SKIN: Wash with plenty of soap and water.  
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

IF exposed: Call a POISON CENTER or doctor/physician.  
 IF exposed or concerned: Get medical advice/attention.  
 Call a POISON CENTER or doctor/physician if you feel unwell.  
 Specific treatment see section 4.  
 Rinse mouth.  
 Take off immediately all contaminated clothing and wash it before reuse.  
 In case of fire: Use extinguishing media in section 5 for extinction.

**Storage:** Keep container tightly closed.  
 Store in a well-ventilated place. Keep cool.  
 Store locked up.

**Disposal:** Dispose of contents/container according to section 13 of the SDS.

**Single Exposure Target Organs:** Specific target organ toxicity - Single exposure - STOT SE 1: H370 Causes damage to organs. (C >= 10 %; No information to prove exclusion of certain routes of exposure); Specific target organ toxicity - Single exposure - STOT SE 2: H371 May cause damage to organs. (3 % <= C <10 %; Concentration limits for acute toxicity cannot be translated into GHS from the DSD especially when minimum classifications are given)

**Repeated Exposure Target Organs:** Specific target organ toxicity - Repeated exposure - STOT RE 1: H372 Causes damage to organs through prolonged or repeated exposure. (C >= 1 %; No information to prove exclusion of certain routes of exposure)

### 3. COMPOSITION / INFORMATION ON INGREDIENT

Chemical Name	CAS #	EINEC #	% Composition
methanol	67-56-1	200-659-6	98.6
p-xylene	106-42-3	203-396-5	0.2
Toluene	108-88-3	203-625-9	0.2
Vinyl acetate	108-05-4	203-545-4	0.2
o-xylene	95-47-6	202-422-2	0.2
Benzene	71-43-2	200-753-7	0.2
carbon disulfide	75-15-0	200-843-6	0.2
Ethylbenzene	100-41-4	202-849-4	0.2

### 4. FIRST-AID MEASURES

**Inhalation:** Remove to fresh air. If breathing is difficult, have a trained individual administer oxygen. If not breathing, give artificial respiration and have a trained individual administer oxygen. Get medical attention immediately

**Eyes:** Flush eyes with plenty of water for at least 20 minutes retracting eyelids often. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Get immediate medical attention. Immediately flush eyes with plenty of water for at least 20 minutes retracting eyelids often. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Get immediate medical attention and monitor the eye daily as advised by your physician. Immediately flush eyes with plenty of water for at least 20 minutes retracting eyelids often. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Get immediate medical attention and monitor the eye daily as advised by your physician.

**Skin Contact:** Wash with soap and water. Remove contaminated clothing and launder. Get medical attention if irritation develops or persists.

**Ingestion:** Minimal risk of harm if swallowed. Do not induce vomiting. Seek medical attention immediately. Provide medical care provider with this SDS.

### 5. FIRE- FIGHTING MEASURES

**Extinguishing Media:** Use alcohol resistant foam, carbon dioxide, or dry chemical extinguishing agents. Water may be ineffective but water spray can be used to extinguish a fire if swept across the base of the flames. Water can absorb heat and keep exposed material from being damaged by fire. Use alcohol resistant foam, carbon dioxide, or dry chemical extinguishing agents. Water spray or fog may also be effective for extinguishing if swept across the base of the fire. Water can also be used to absorb heat and keep exposed material from being damaged by fire.

**Fire and/or Explosion Hazards:** Vapors may be ignited by heat, sparks, flames or other sources of ignition at or above the low flash point giving rise to a Class B fire. Vapors are heavier than air and may travel to a source of ignition and

**Fire Fighting Methods and Protection:** flash back  
Do not enter fire area without proper protection including self-contained breathing apparatus and full protective equipment. Fight fire from a safe distance and a protected location due to the potential of hazardous vapors and decomposition products. Flammable component(s) of this material may be lighter than water and burn while floating on the surface.

**Hazardous Combustion Products:** Carbon dioxide, Carbon monoxide

## 6. ACCIDENTAL RELEASE MEASURES

**Personal Precautions and Equipment:** Exposure to the spilled material may be severely irritating or toxic. Follow personal protective equipment recommendations found in Section 8 of this SDS. Personal protective equipment needs must be evaluated based on information provided on this sheet and the special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred, and the expertise of employees in the area responding to the spill. Never exceed any occupational exposure limits.

**Methods for Clean-up:** Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation.

## 7. HANDLING AND STORAGE

**Handling Technical Measures and Precautions:** Toxic or severely irritating material. Avoid contacting and avoid breathing the material. Use only in a well ventilated area. Use spark-proof tools and explosion-proof equipment Wash thoroughly after handling Avoid contact with material. Remove contaminated clothing and wash before reuse "Empty" containers retain product residue (liquid and/or vapor) and can be dangerous.

**Storage Technical Measures and Conditions:** Store in a cool dry ventilated location. Isolate from incompatible materials and conditions. Keep container(s) closed. Keep away from sources of ignition Keep away from heat, sparks, and flame

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### United States:

Chemical Name	CAS No.	IDLH	ACGIH STEL	ACGIH TLV-TWA	OSHA Exposure Limit
methanol	67-56-1	6000 ppm IDLH	250 ppm STEL	200 ppm TWA	200 ppm TWA; 260 mg/m3 TWA
Vinyl acetate	108-05-4	Not established	15 ppm STEL; 53 mg/m3 STEL	10 ppm TWA; 35 mg/m3 TWA	No data available
Benzene	71-43-2	500 ppm IDLH	2.5 ppm STEL; 8 mg/m3 STEL	0.5 ppm TWA; 1.6 mg/m3 TWA	10 ppm TWA (apply only to exempt industry segments)
Ethylbenzene	100-41-4	800 ppm IDLH	125 ppm STEL; 543 mg/m3 STEL	100 ppm TWA; 434 mg/m3 TWA	100 ppm TWA; 435 mg/m3 TWA

### Personal Protection:

#### Engineering Measures:

Local exhaust ventilation or other engineering controls are normally required when handling or using this product to avoid overexposure. Explosion proof exhaust ventilation should be used.

#### Respiratory Protection:

No respiratory protection required under normal conditions of use. Provide general room exhaust ventilation if symptoms of overexposure occur as explained Section 3. A respirator is not normally required. If an exposure limit is exceeded or if an operator is experiencing symptoms of inhalation overexposure as explained in Section 3, provide respiratory protection.

#### Eye Protection:

Wear chemically resistant safety glasses with side shields when handling this product. Do not wear contact lenses.

#### Skin Protection:

Wear protective gloves. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other

exposed areas with mild soap and water before eating, drinking, and when leaving work. Not normally considered a skin hazard. Where use can result in skin contact, practice good personal hygiene and wear a barrier cream and/or impervious surgical style gloves. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

---

Appearance, color:	No data available
Odor:	Mild
Physical State:	No data available
pH:	Not applicable
Vapor Pressure:	No data available
Vapor Density:	1.1 (air = 1)
Boiling Point (°C):	80.1 °C (HSDB) 136.1 °C (HSDB) 72.8 °C (HSDB) 64.7 °C at 760 mmHg (HSDB)
Melting Point (°C):	-98 °C
Flash Point (°F):	12
Flammability:	Highly Flammable Extremely Flammable
Upper Flammable/Explosive Limit, % in air:	36
Lower Flammable/Explosive Limit, % in air:	6
Autoignition Temperature (°C):	464 deg C
Decomposition Temperature (°C):	0
Specific Gravity:	0.791 - 0.792 g/cm3 at 20 °C
Evaporation Rate:	No data available
Odor Threshold:	No data available
Solubility:	Moderate; 50-99%
Partition Coefficient: n-octanol in water:	No data available
VOC % by weight:	100
Molecular Weight:	32.04

## 10. STABILITY AND REACTIVITY

---

Stability:	Stable under normal conditions.
Conditions to Avoid:	None known. Contamination
Materials to Avoid / Chemical Incompatibility:	Strong oxidizing agents Acids Oxidizing materials Peroxides Strong alkalis
Hazardous Decomposition Products:	Carbon dioxide Carbon monoxide

## 11. TOXICOLOGICAL INFORMATION

---

Routes of Entry:	Inhalation, Skin Contact, Eye Contact, Ingestion
Target Organs Potentially Affected By Exposure:	Eyes, Central nervous system stimulation, Skin, GI Tract, Respiratory Tract
Chemical Interactions That Change Toxicity:	None Known

### Immediate (Acute) Health Effects by Route of Exposure:

Inhalation Irritation:	Can cause moderate respiratory irritation, dizziness, weakness, fatigue, nausea and headache.
Inhalation Toxicity:	Harmful! Can cause systemic damage (see "Target Organs")Methanol can cause central nervous system depression and overexposure can cause damage to the optic nerve resulting in visual impairment or blindness.
Skin Contact:	Can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage.
Eye Contact:	Can cause moderate irritation, tearing and reddening, but not likely to permanently injure eye tissue.
Ingestion Irritation:	Irritating to mouth, throat, and stomach. Can cause abdominal discomfort, nausea, vomiting and diarrhea. Highly toxic and may be fatal if swallowed.
Ingestion Toxicity:	Toxic if swallowed. May cause target organ failure and/or death. May be fatal if swallowed.

### Long-Term (Chronic) Health Effects:

Carcinogenicity:	Contains a probable or known human carcinogen.
Reproductive and Developmental Toxicity:	Contains a known human reproductive and/or developmental hazard.
Inhalation:	Upon prolonged and/or repeated exposure, can cause moderate respiratory irritation, dizziness, weakness, fatigue, nausea and headache. Harmful! Can cause systemic damage upon prolonged and/or repeated exposure (see

**Skin Contact:** "Target Organs)  
Upon prolonged or repeated contact, can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage.

**Skin Absorption:** Upon prolonged or repeated exposure, toxic if absorbed through the skin. Likely to cause systemic damage. Upon prolonged or repeated exposure, no hazard in normal industrial use.

**Ingestion:** Toxic if swallowed. May cause target organ failure and/or death.

**Component Toxicological Data:**

**NIOSH:**

Chemical Name	CAS No.	LD50/LC50
Vinyl acetate	108-05-4	Inhalation LC50 Rat : 11400 mg/m <sup>3</sup> /4H;
Acetic acid, vinyl ester		Inhalation LC50 Mouse : 1550 ppm/4H; Oral LD50 Rat : 2920 mg/kg; Oral LD50 Mouse : 1613 mg/kg; Dermal LD50 Rabbit : 2335 mg/kg
Benzene	71-43-2	Dermal LD50 Rabbit >8200 mg/kg
Benzene, ethyl-	100-41-4	Oral LD50 Rat : 3500 mg/kg; Dermal LD50 Rabbit : 17800 uL/kg
Methanol	67-56-1	Inhalation LC50 Rat 22500 ppm 8 h

**Component Carcinogenic Data:**

**OSHA:**

Chemical Name	CAS No.	
Vinyl acetate	108-05-4	Present
Benzene	71-43-2	Monograph 29, Supplement 7; 1987; {IARC - Group 1 (carcinogenic to humans)}; Known Carcinogen; {NTP Eighth Report - Known Carcinogens}; 1 ppm TWA; 5 ppm STEL; 0.5 ppm TWA action limit; Cancer hazard; Flammable (see 29 CFR 1910.1028); {OSHA - 29 CFR 1910 Specifically Regulated Chemicals}
Ethylbenzene	100-41-4	Present

**ACGIH:**

Chemical Name	CAS No.	
Vinyl acetate	108-05-4	A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans
Benzene	71-43-2	A1-confirmed human carcinogen
Ethyl benzene	100-41-4	A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans

**NIOSH:**

Chemical Name	CAS No.	
Benzene	71-43-2	potential occupational carcinogen

**NTP:**

Chemical Name	CAS No.	
Benzene	71-43-2	Known Carcinogen

**IARC:**

Chemical Name	CAS No.	Group No.
Monograph 29, Supplement 7; 1987	71-43-2	Group 1
Monograph 63; 1995	108-05-4	Group 2B
Monograph 77 [2000]	100-41-4	Group 2B

**12. ECOLOGICAL INFORMATION**

**Overview:** Moderate ecological hazard. This product may be dangerous to plants and/or wildlife.

**Mobility:** No data

**Persistence:** No data

**Bioaccumulation:** No data

**Degradability:** Biodegrades slowly.

**Ecological Toxicity Data:** No data available

### 13. DISPOSAL CONSIDERATIONS

**Waste Description of Spent Product:** Spent or discarded material is a hazardous waste. Mixing spent or discarded material with other materials may render the mixture hazardous. Perform a hazardous waste determination on mixtures.

**Disposal Methods:** Dispose of by incineration following Federal, State, Local, or Provincial regulations.

**Waste Disposal of Packaging:** Comply with all Local, State, Federal, and Provincial Environmental Regulations.

### 14. TRANSPORTATION INFORMATION

**United States:**  
**DOT Proper Shipping Name:** Flammable liquids, n.o.s. (Methanol, Benzene)  
**UN Number:** UN1993  
**Hazard Class:** 3  
**Packing Group:** II

**International:**  
**IATA Proper Shipping Name:** Flammable liquids, n.o.s. (Methanol, Benzene)  
**UN Number:** UN1993  
**Hazard Class:** 3  
**Packing Group:** II

**Marine Pollutant:** No

Chemical Name	CAS#	Marine Pollutant	Severe Marine Pollutant
No data available			

### 15. REGULATORY INFORMATION

United States:	CAS#	CERCLA	SARA 313	SARA EHS 313	TSCA
methanol	67-56-1	X	X	-	X
Vinyl acetate	108-05-4	X	X	X	X
Benzene	71-43-2	X	X	-	X
Ethylbenzene	100-41-4	X	X	-	X

The following chemicals are listed on CA Prop 65:

Chemical Name	CAS #	Regulation
Benzene	71-43-2	Prop 65 Cancer
Ethylbenzene	100-41-4	Prop 65 Cancer
Toluene	108-88-3	Prop 65 Develop Tox
Benzene	71-43-2	Prop 65 Develop Tox
Carbon disulfide	75-15-0	Prop 65 Develop Tox
Methanol	67-56-1	Prop 65 Develop Tox
Carbon disulfide	75-15-0	Prop 65 Rep Female
Benzene	71-43-2	Prop 65 Rep Male
Carbon disulfide	75-15-0	Prop 65 Rep Male

State Right To Know Listing:

Chemical Name	CAS#	New Jersey	Massachusetts	Pennsylvania	California
methanol	67-56-1	X	X	X	X
p-xylene	106-42-3	X	X	X	X
Toluene	108-88-3	X	X	X	X
Vinyl acetate	108-05-4	X	X	X	X
o-xylene	95-47-6	X	X	X	X
Benzene	71-43-2	X	X	X	X
carbon disulfide	75-15-0	X	X	X	X
Ethylbenzene	100-41-4	X	X	X	X

## 16. OTHER INFORMATION

---

**Prior Version Date:** 04/17/18

**Other Information:** Any changes to the SDS compared to previous versions are marked by a vertical line in front of the concerned paragraph.

**References:** No data available

**Disclaimer:** Restek Corporation provides the descriptions, data and information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. It is provided for your guidance only. Because many factors may affect processing or application/use, Restek Corporation recommends you perform an assessment to determine the suitability of a product for your particular purpose prior to use. No warranties of any kind, either expressed or implied, including fitness for a particular purpose, are made regarding products described, data or information set forth. In no case shall the descriptions, information, or data provided be considered a part of our terms and conditions of sale. Further, the descriptions, data and information furnished hereunder are given gratis. No obligation or liability for the description, data and information given are assumed. All such being given and accepted at your risk.