

### 1. IDENTIFICATION

**Catalog Number / Product Name:** 31011 / SV Calibration Mix #5  
**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:** 15  
**Intended use:** For Laboratory use only

### 2. HAZARD(S) IDENTIFICATION

#### Emergency Overview:

**GHS Hazard Symbols:**



**GHS Classification:** Skin Sensitisation Category 1  
Germ Cell Mutagenicity Category 1B  
Carcinogenicity Category 1B  
Hazardous to the aquatic environment - Acute Category 1  
Hazardous to the aquatic environment - Chronic Category 1

**GHS Signal Word:** Danger

**GHS Hazard:** May cause an allergic skin reaction.  
May cause genetic defects.  
May cause cancer.  
Very toxic to aquatic life.  
Very toxic to aquatic life with long lasting effects.

**GHS Precautions:**

**Safety Precautions:** Obtain special instructions before use.  
Do not handle until all safety precautions have been read and understood.  
Avoid breathing dust/fume/gas/mist/vapours/spray.  
Contaminated work clothing should not be allowed out of the workplace.  
Avoid release to the environment.  
Wear protective gloves/protective clothing/eye protection/face protection.

**First Aid Measures:** IF ON SKIN: Wash with plenty of soap and water.  
IF exposed or concerned: Get medical advice/attention.  
Specific treatment see section 4.  
If skin irritation or rash occurs: Get medical advice/attention.  
Wash contaminated clothing before reuse.  
Collect spillage.

**Storage:** Store locked up.

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

**Single Exposure** No data available  
**Target Organs:**

**Repeated Exposure** No data available  
**Target Organs:**

### 3. COMPOSITION / INFORMATION ON INGREDIENT

Chemical Name	CAS #	EINEC #	% Composition
Dichloromethane	75-09-2	200-838-9	96.8
Naphthalene	91-20-3	202-049-5	0.2
Fluoranthene	206-44-0	205-912-4	0.2
acenaphthene	83-32-9	201-469-6	0.2
Benzo(b)fluoranthene	205-99-2	205-911-9	0.2
Dibenz(a,h)anthracene	53-70-3	200-181-8	0.2
chrysene	218-01-9	205-923-4	0.2
anthracene	120-12-7	204-371-1	0.2
phenanthrene	85-01-8	201-581-5	0.2
Benzo(g,h,i)perylene	191-24-2	205-883-8	0.2
Indeno(1,2,3-cd)pyrene	193-39-5	205-893-2	0.2
Benz(a)anthracene	56-55-3	200-280-6	0.2
fluorene	86-73-7	201-695-5	0.2
Benzo(a)pyrene	50-32-8	200-028-5	0.2
pyrene	129-00-0	204-927-3	0.2
Benzo(k)fluoranthene	207-08-9	205-916-6	0.2
acenaphthylene	208-96-8	205-917-1	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:** 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. 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. Serious harm (damage) may result if treatment is delayed. Continue to flush eyes while awaiting medical attention

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

**Ingestion:** Do not induce vomiting and seek medical attention immediately. Drink two glasses of water or milk to dilute. Provide medical care provider with this SDS. Never give anything by mouth to an unconscious person

### 5. FIRE- FIGHTING MEASURES

**Extinguishing Media:** Use alcohol resistant foam, carbon dioxide, or dry chemical when fighting fires. Water or foam may cause frothing if liquid is burning but it still may be a useful extinguishing agent if carefully applied to the surface of the fire. Do Not direct a stream of water into the hot burning liquid. Use alcohol resistant foam, carbon dioxide, dry chemical, or water spray when fighting fires. Water or foam may cause frothing if liquid is burning but it still may be a useful extinguishing agent if carefully applied to the fire. Do not direct a water stream directly into the hot burning liquid. Use methods suitable to fight surrounding fire.

**Fire and/or Explosion Hazards:** Material may be ignited if preheated to temperatures above the flash point in the presence of a source of ignition.

**Fire Fighting Methods and Protection:** 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.

**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. As with all chemicals, good industrial hygiene practices should be followed when handling this material.

**Storage Technical Measures and Conditions:** Store in a cool dry place. Isolate from incompatible materials. Keep container closed when not in use

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### United States:

Chemical Name	CAS No.	IDLH	ACGIH STEL	ACGIH TLV-TWA	OSHA Exposure Limit
Dichloromethane	75-09-2	2300 ppm IDLH	None Known	50 ppm TWA	25 ppm TWA; 125 ppm STEL (15 min. TWA)
Naphthalene	91-20-3	250 ppm IDLH	15 ppm STEL; 79 mg/m3 STEL	10 ppm TWA; 52 mg/m3 TWA	10 ppm TWA; 50 mg/m3 TWA
Fluoranthene	206-44-0	Not established	None Known	Not established	No data available
Benzo(b)fluoranthene	205-99-2	Not established	None Known	Not established	No data available
Dibenz(a,h)anthracene	53-70-3	Not established	None Known	Not established	No data available
Indeno(1,2,3-cd)pyrene	193-39-5	Not established	None Known	Not established	No data available
Benz(a)anthracene	56-55-3	Not established	None Known	Not established	No data available
pyrene	129-00-0	Not established	None Known	Not established	0.2 mg/m3 TWA (listed under Coal tar pitch volatiles)
Benzo(k)fluoranthene	207-08-9	Not established	None Known	Not established	No data available
acenaphthylene	208-96-8	Not established	None Known	Not established	No data available

### Personal Protection:

#### Engineering Measures:

Local exhaust ventilation or other engineering controls are normally required when handling or using this product to avoid overexposure.

#### Respiratory Protection:

Respiratory protection must be used when handling this product. Use respirators only if ventilation cannot be used to eliminate symptoms or reduce the exposure to below acceptable levels. A supplied air type respirator will be required.

#### Eye Protection:

Wear chemically resistant safety glasses with side shields when handling this

product. Wear additional eye protection such as chemical splash goggles and/or face shield when the possibility exists for eye contact with splashing or spraying liquid, or airborne material. Do not wear contact lenses. Have an eye wash station available.

**Skin Protection:**

Avoid skin contact by wearing chemically resistant gloves, an apron and other protective equipment depending upon conditions of use. 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.

**Medical Conditions Aggravated By Exposure:**

Eye disease Skin disease including eczema and sensitization Respiratory disease including asthma and bronchitis

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

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<b>Appearance, color:</b>	Colorless
<b>Odor:</b>	Strong
<b>Physical State:</b>	No data available
<b>pH:</b>	Not applicable
<b>Vapor Pressure:</b>	No data available
<b>Vapor Density:</b>	2.93 (air = 1)
<b>Boiling Point (°C):</b>	218.1 °C at 1013 hPa (ECHA_API) 393 °C 375 °C 265 - 275 °C 530 °C 480 °C 524 °C Boiling Point 438 °C Boiling Point (at 1013.25 hPa) 40 °C at 1013 hPa (ECHA_API)
<b>Melting Point (°C):</b>	-96.7 °C
<b>Flash Point (°F):</b>	174
<b>Flammability:</b>	Combustible
<b>Upper Flammable/Explosive Limit, % in air:</b>	No data available
<b>Lower Flammable/Explosive Limit, % in air:</b>	No data available
<b>Autoignition Temperature (°C):</b>	556 deg C
<b>Decomposition Temperature (°C):</b>	No data available
<b>Specific Gravity:</b>	1.3254 - 1.3258 g/cm3 at 20 °C
<b>Evaporation Rate:</b>	No data available
<b>Odor Threshold:</b>	ND
<b>Solubility:</b>	Moderate; 50-99%
<b>Partition Coefficient: n-octanol in water:</b>	No data available
<b>VOC % by weight:</b>	96.8
<b>Molecular Weight:</b>	No data available

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## 10. STABILITY AND REACTIVITY

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<b>Stability:</b>	Stable under normal conditions.
<b>Conditions to Avoid:</b>	None known. Contamination High temperatures
<b>Materials to Avoid / Chemical Incompatibility:</b>	Strong oxidizing agents Caustics (bases)
<b>Hazardous Decomposition Products:</b>	Carbon dioxide Carbon monoxide

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## 11. TOXICOLOGICAL INFORMATION

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<b>Routes of Entry:</b>	Inhalation Absorption Ingestion Skin contact Eye contact
<b>Target Organs Potentially Affected By Exposure:</b>	Skin, Cardiovascular System, Eyes, Liver
<b>Chemical Interactions That Change Toxicity:</b>	None Known

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

<b>Inhalation Irritation:</b>	Can cause moderate respiratory irritation, dizziness, weakness, fatigue, nausea and headache.
<b>Inhalation Toxicity:</b>	Harmful! Can cause systemic damage (see "Target Organs") Inhalation may cause severe central nervous system depression (including unconsciousness).
<b>Skin Contact:</b>	Contact causes severe skin irritation and possible burns.
<b>Skin Absorption:</b>	Harmful if absorbed through the skin. May cause severe irritation and systemic damage.
<b>Eye Contact:</b>	Contact with the eyes may cause moderate to severe eye injury. Eye contact may result in tearing and reddening, but not likely to permanently injure eye tissue. Temporary vision impairment (cloudy or blurred vision) is possible.
<b>Ingestion Irritation:</b>	Irritating to mouth, throat, and stomach. Can cause abdominal discomfort, nausea, vomiting and diarrhea.
<b>Ingestion Toxicity:</b>	Harmful if swallowed. May cause systemic poisoning.

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

**Carcinogenicity:**  
**Reproductive and Developmental Toxicity:**

Contains a probable or known human carcinogen.  
No data available to indicate product or any components present at greater than 0.1% may cause birth defects.  
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 "Target Organs")

**Inhalation:**

**Skin Absorption:**

Upon prolonged or repeated exposure, harmful if absorbed through the skin. May cause severe irritation and systemic damage

**Component Toxicological Data:**

**NIOSH:**

<b>Chemical Name</b>	<b>CAS No.</b>	<b>LD50/LC50</b>
Naphthalene	91-20-3	Inhalation LC50 Rat : >340 mg/m <sup>3</sup> /1H; Oral LD50 Rat : 490 mg/kg; Oral LD50 Mouse : 533 mg/kg; Dermal LD50 Rabbit : >20 gm/kg
Fluoranthene	206-44-0	Dermal LD50 Rabbit 3180 mg/kg; Oral LD50 Rat 2 g/kg
Pyrene	129-00-0	Oral LD50 Rat 2700 mg/kg
Dichloromethane	75-09-2	Dermal LD50 Rat >2000 mg/kg; Inhalation LC50 Rat 53 mg/L 6 h; Oral LD50 Rat 1600 mg/kg

**Component Carcinogenic Data:**

**OSHA:**

<b>Chemical Name</b>	<b>CAS No.</b>	
Naphthalene	91-20-3	Present
Benzo(b)fluoranthene	205-99-2	Present
Dibenz[a,h]anthracene	53-70-3	Present
Indeno(1,2,3-cd)pyrene	193-39-5	Present
Benz[a]anthracene	56-55-3	Present
Benzo(k)fluoranthene	207-08-9	Present
Methylene chloride	75-09-2	25 ppm TWA (8 hr.); 125 ppm STEL (15 min.); 12.5 ppm Action Level (see 29 CFR 1910.1051); effective date for respiratory protection for certain employers to achieve the 8-hour TWA PEL is August 31, 1998; the start up date to install engineering controls is December 10, 1998.; (OSHA - 29 CFR 1910 Specifically Regulate

**ACGIH:**

<b>Chemical Name</b>	<b>CAS No.</b>	
Naphthalene	91-20-3	A4 - Not Classifiable as a Human Carcinogen
Benzo[b]fluoranthene	205-99-2	A2 - Suspected Human Carcinogen
Benz[a]anthracene	56-55-3	A2 - Suspected Human Carcinogen
Dichloromethane	75-09-2	A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans

**NIOSH:**

<b>Chemical Name</b>	<b>CAS No.</b>	
Methylene chloride	75-09-2	potential occupational carcinogen

**NTP:**

<b>Chemical Name</b>	<b>CAS No.</b>
No data available	

**IARC:**

<b>Chemical Name</b>	<b>CAS No.</b>	<b>Group No.</b>
Monograph 100F [2012]; Monograph 92 [2010]; Supplement 7 [1987]; Monograph 32 [1983] (overall evaluation upgraded from 2B to 1 based on mechanistic and other relevant	50-32-8	Group 1

data)		
Monograph 92 [2010]; Supplement 7 [1987]; Monograph 32 [1983] (overall evaluation upgraded from 2B to 2A with supporting evidence from other relevant data)	53-70-3	Group 2A
Monograph 110 [2017]; Monograph 71 [1999]	75-09-2	Group 2A
Monograph 82 [2002]	91-20-3	Group 2B
Monograph 92 [2010]; Supplement 7 [1987]; Monograph 32 [1983]	205-99-2	Group 2B
Monograph 92 [2010]; Supplement 7 [1987]; Monograph 32 [1983]	218-01-9	Group 2B
Monograph 92 [2010]; Supplement 7 [1987]; Monograph 32 [1983]	193-39-5	Group 2B
Monograph 92 [2010]; Supplement 7 [1987]; Monograph 32 [1983]	56-55-3	Group 2B
Monograph 92 [2010]; Supplement 7 [1987]; Monograph 32 [1983]	207-08-9	Group 2B

## 12. ECOLOGICAL INFORMATION

<b>Overview:</b>	Moderate ecological hazard. This product may be dangerous to plants and/or wildlife. Keep out of waterways.
<b>Mobility:</b>	No data
<b>Persistence:</b>	No data
<b>Bioaccumulation:</b>	No data
<b>Degradability:</b>	No data
<b>Ecological Toxicity Data:</b>	No data available

## 13. DISPOSAL CONSIDERATIONS

<b>Waste Description of Spent Product:</b>	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.
<b>Disposal Methods:</b>	Incinerate spent or discarded material a permitted hazardous waste facility.
<b>Waste Disposal of Packaging:</b>	Comply with all Local, State, Federal, and Provincial Environmental Regulations.

## 14. TRANSPORTATION INFORMATION

<b>United States:</b>	
<b>DOT Proper Shipping Name:</b>	Toxic liquid, organic, n.o.s. (Dichloromethane)
<b>UN Number:</b>	UN2810
<b>Hazard Class:</b>	6.1
<b>Packing Group:</b>	III
<b>International:</b>	
<b>IATA Proper Shipping Name:</b>	Toxic liquid, organic, n.o.s. (Dichloromethane)
<b>UN Number:</b>	UN2810
<b>Hazard Class:</b>	6.1
<b>Packing Group:</b>	III

Marine Pollutant: No

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

## 15. REGULATORY INFORMATION

### United States:

Chemical Name	CAS#	CERCLA	SARA 313	SARA EHS 313	TSCA
Dichloromethane	75-09-2	X	X	-	X
Naphthalene	91-20-3	X	X	-	X
Fluoranthene	206-44-0	X	X	-	X
Benzo(b)fluoranthene	205-99-2	X	X	-	-
Dibenz(a,h)anthracene	53-70-3	X	X	-	X
Indeno(1,2,3-cd)pyrene	193-39-5	X	X	-	X
Benz(a)anthracene	56-55-3	X	X	-	X
pyrene	129-00-0	X	-	X	X
Benzo(k)fluoranthene	207-08-9	X	X	-	-
acenaphthylene	208-96-8	X	-	-	X

### The following chemicals are listed on CA Prop 65:

Chemical Name	CAS #	Regulation
Naphthalene	91-20-3	Prop 65 Cancer
Benzo[b]fluoranthene	205-99-2	Prop 65 Cancer
Dibenz[a,h]anthracene	53-70-3	Prop 65 Cancer
Chrysene	218-01-9	Prop 65 Cancer
Indeno[1,2,3-cd]pyrene	193-39-5	Prop 65 Cancer
Benz[a]anthracene	56-55-3	Prop 65 Cancer
Benzo[a]pyrene	50-32-8	Prop 65 Cancer
Benzo[k]fluoranthene	207-08-9	Prop 65 Cancer
Dichloromethane	75-09-2	Prop 65 Cancer
Dichloromethane (Methylene chloride)		
Dichloromethane		Prop 65 Cancer

### State Right To Know Listing:

Chemical Name	CAS#	New Jersey	Massachusetts	Pennsylvania	California
Dichloromethane	75-09-2	X	X	X	X
Naphthalene	91-20-3	X	X	X	X
Fluoranthene	206-44-0	X	X	X	X
acenaphthene	83-32-9	X	X	X	X
Benzo(b)fluoranthene	205-99-2	X	X	X	X
Dibenz(a,h)anthracene	53-70-3	X	X	X	X
chrysene	218-01-9	X	X	X	X
anthracene	120-12-7	X	X	X	X
phenanthrene	85-01-8	X	X	X	X
Benzo(g,h,i)perylene	191-24-2	X	X	X	X
Indeno(1,2,3-cd)pyrene	193-39-5	X	X	X	X
Benz(a)anthracene	56-55-3	X	X	X	X
fluorene	86-73-7	X	X	X	-
Benzo(a)pyrene	50-32-8	X	X	X	X
pyrene	129-00-0	X	X	X	X
Benzo(k)fluoranthene	207-08-9	X	X	X	X
acenaphthylene	208-96-8	X	X	X	-

## 16. OTHER INFORMATION

**Prior Version Date:** 04/12/19

**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

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