Safety Data Sheet

Revision Date: 06/24/25
www.restek.com

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

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:	23
Intended use:	After February 3, 2025, this chemical substance (as defined in TSCA section 3(2))/ product cannot be distributed in commerce to retailers. After January 28, 2026, this chemical substance (as defined in TSCA section 3(2))/product is and can only be distributed in commerce or processed with a concentration of methylene chloride equal to or greater than 0.1% by weight for the following purposes: (1) Processing as a reactant; (2) Processing for incorporation into a formulation, mixture, or reaction product; (3) Processing for repackaging; (4) Processing for recycling; (5) Industrial or commercial use as a laboratory chemical; (6) Industrial or commercial use as a bonding agent for solvent welding; (7) Industrial and commercial use as a paint and coating remover from safety critical, corrosionsensitive components of aircraft and spacecraft; (8) Industrial and commercial use as a processing aid; (9) Industrial and commercial use for plastic and rubber products manufacturing; (10) Industrial and commercial use as a solvent that becomes part of a formulation or mixture, where that formulation or mixture will be used inside a manufacturing process, and the solvent (methylene chloride) will be reclaimed; (11) Industrial and commercial use in the refinishing for wooden furniture, decorative pieces, and architectural fixtures of artistic, cultural or historic value until May 8, 2029;(12) Industrial and commercial use in adhesives and sealants in aircraft, space vehicle, and turbine applications for structural and safety critical non-structural applications until May 8, 2029; (13) Disposal; and (14) Export.

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 Target Organs: No data available

Repeated Exposure Target Organs: No data available

3. COMPOSITION / INFORMATION ON INGREDIENT

Chemical Name	CAS #	EINEC #	% Composition
Methylene chloride (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
benzo (g,h,i) perylene	191-24-2	205-883-8	0.2
anthracene	120-12-7	204-371-1	0.2
phenanthrene	85-01-8	201-581-5	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
Methylene chloride (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	None Known	Not established	No data available

		established			
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

9. PHYSICAL AND CHEMICAL PROPERTIES

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

10. STABILITY AND REACTIVITY

Stability: Stable under normal conditions.
Conditions to Avoid: None known.Contamination High temperatures
Materials to Avoid / Chemical Incompatiability: Strong oxidizing agents Caustics (bases)

Hazardous Decomposition Products: Carbon dioxide Carbon monoxide

11. TOXICOLOGICAL INFORMATION

Routes of Entry: Inhalation Absorption Ingestion Skin contact Eye contact
Target Organs Potentially Affected By Exposure: Skin, Cardiovascular System, Eyes, Liver
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)Inhalation may cause severe central nervous system depression (including unconsciousness).

Skin Contact: Contact causes severe skin irritation and possible burns.

Skin Absorption: Harmful if absorbed through the skin. May cause severe irritation and systemic damage.

Eye Contact: 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.

Ingestion Irritation: Irritating to mouth, throat, and stomach. Can cause abdominal discomfort, nausea, vomiting and diarrhea.

Ingestion Toxicity: Harmful if swallowed. May cause systemic poisoning.

Long-Term (Chronic) Health Effects:

Carcinogenicity: Contains a probable or known human carcinogen.

Reproductive and Developmental Toxicity: No data available to indicate product or any components present at greater than 0.1% may cause birth defects.

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 "Target Organs)

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

Component Toxicological Data:
NIOSH:

Chemical Name	CAS No.	LD50/LC50
Naphthalene	91-20-3	Inhalation LC50 Rat : >340 mg/m3/1H; 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:

Chemical Name	CAS No.	
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 acheive 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:

Chemical Name	CAS No.	
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:

Chemical Name	CAS No.	
Methylene chloride	75-09-2	potential occupational carcinogen

NTP:

Chemical Name	CAS No.
No data available	

IARC:

Chemical Name	CAS No.	Group No.
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 data)	50-32-8	Group 1
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 133 [in preparation]; Monograph 92 [2010]; Supplement 7 [1987]; Monograph 32 [1983]	120-12-7	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

Overview: Moderate ecological hazard. This product may be dangerous to plants and/or wildlife. Keep out of waterways.

Mobility: No data

Persistence: No data

Bioaccumulation: No data

Degradability: No data

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:	Incinerate spent or discarded material a permitted hazardous waste facility.
Waste Disposal of Packaging:	Comply with all Local, State, Federal, and Provincial Environmental Regulations.

14. TRANSPORTATION INFORMATION

United States:

DOT Proper Shipping Name:	Toxic liquid, organic, n.o.s. (Dichloromethane) Dichloromethane
UN Number:	UN2810 UN1593
Hazard Class:	6.1
Packing Group:	III

International:

IATA Proper Shipping Name:	Toxic liquid, organic, n.o.s. (Dichloromethane) Dichloromethane
UN Number:	UN2810 UN1593
Hazard Class:	6.1
Packing Group:	III

Marine Pollutant: No

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

15. REGULATORY INFORMATION

United States:

After February 3, 2025, this chemical substance (as defined in TSCA section 3(2))/ product cannot be distributed in commerce to retailers. After January 28, 2026, this chemical substance (as defined in TSCA section 3(2))/product is and can only be distributed in commerce or processed with a concentration of methylene chloride equal to or greater than 0.1% by weight for the following purposes: (1) Processing as a reactant; (2) Processing for incorporation into a formulation, mixture, or reaction product; (3) Processing for repackaging; (4) Processing for recycling; (5) Industrial or commercial use as a laboratory chemical; (6) Industrial or commercial use as a bonding agent for solvent welding; (7) Industrial and commercial use as a paint and coating remover from safety critical, corrosionsensitive components of aircraft and spacecraft; (8) Industrial and commercial use as a processing aid; (9) Industrial and commercial use for plastic and rubber products manufacturing; (10) Industrial and commercial use as a solvent that becomes part of a formulation or mixture, where that formulation or mixture will be used inside a manufacturing process, and the solvent (methylene chloride) will be reclaimed; (11) Industrial and commercial use in the refinishing for wooden furniture, decorative pieces, and architectural fixtures of artistic, cultural or historic value until May 8, 2029;(12) Industrial and commercial use in adhesives and sealants in aircraft, space vehicle, and turbine applications for structural and safety critical non-structural applications until May 8, 2029; (13) Disposal; and (14) Export.

Chemical Name	CAS#	CERCLA	SARA 313	SARA EHS 313	TSCA
Methylene chloride (dichloromethane)	75-09-2	X	X	-	X
Naphthalene	91-20-3	X	X	-	X
Fluoranthene	206-44-0	X	X	-	X
acenaphthene	83-32-9	X	-	-	X
Benzo(b)fluoranthene	205-99-2	X	X	-	-
Dibenz(a,h)anthracene	53-70-3	X	X	-	X
chrysene	218-01-9	X	X	-	X
benzo (g,h,i) perylene	191-24-2	X	X	-	-
anthracene	120-12-7	X	X	-	X
phenanthrene	85-01-8	X	X	-	X
Indeno(1,2,3-cd)pyrene	193-39-5	X	X	-	X
Benz(a)anthracene	56-55-3	X	X	-	X

fluorene	86-73-7	X	-	-	X
Benzo(a)pyrene	50-32-8	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
Anthracene	120-12-7	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 Dichloromethane (Methylene chloride)	75-09-2	Prop 65 Cancer

State Right To Know Listing:

Chemical Name	CAS#	New Jersey	Massachusetts	Pennsylvania	California
Methylene chloride (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
benzo (g,h,i) perylene	191-24-2	X	X	X	X
anthracene	120-12-7	X	X	X	X
phenanthrene	85-01-8	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: 05/23/25

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.