



## Safety Data Sheet

Revision Date: 04/05/18

www.restek.com

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

### 1. IDENTIFICATION

**Catalog Number / Product Name:** 31615 / GC/MS Tuning Mixture  
**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:** Carcinogenicity Category 1A

**GHS Signal Word:** Danger

**GHS Hazard:** May cause cancer.

**GHS Precautions:**

**Safety Precautions:** Obtain special instructions before use.  
Do not handle until all safety precautions have been read and understood.  
Wear protective gloves/protective clothing/eye protection/face protection.

**First Aid Measures:** IF exposed or concerned: Get medical advice/attention.

**Storage:** 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 3: H335 May cause respiratory irritation.

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

### 3. COMPOSITION / INFORMATION ON INGREDIENT

Chemical Name	CAS #	EINEC #	% Composition
Dichloromethane	75-09-2	200-838-9	99.6
4,4'-DDT	50-29-3	200-024-3	0.1
DFTPP	5074-71-5	225-780-1	0.1

benzidine	92-87-5	202-199-1	0.1
pentachlorophenol	87-86-5	201-778-6	0.1

#### 4. FIRST-AID MEASURES

<b>Inhalation:</b>	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
<b>Eyes:</b>	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. Serious harm (damage) may result if treatment is delayed. Continue to flush eyes while awaiting medical attention
<b>Skin Contact:</b>	Wash with soap and water. Remove contaminated clothing, launder immediately, and discard contaminated leather goods. Get medical attention immediately.
<b>Ingestion:</b>	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

<b>Extinguishing Media:</b>	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 methods suitable to fight surrounding fire.
<b>Fire and/or Explosion Hazards:</b>	No data.
<b>Fire Fighting Methods and Protection:</b>	Use methods for the surrounding fire.
<b>Hazardous Combustion Products:</b>	Carbon dioxide, Carbon monoxide

#### 6. ACCIDENTAL RELEASE MEASURES

<b>Personal Precautions and Equipment:</b>	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.
<b>Methods for Clean-up:</b>	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

<b>Handling Technical Measures and Precautions:</b>	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.
<b>Storage Technical Measures and Conditions:</b>	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)
4,4'-DDT	50-29-3	500 mg/m3 IDLH	None Known	1 mg/m3 TWA	1 mg/m3 TWA (listed under Dichlorodiphenyltrichloroethane)
benzidine	92-87-5	Not	None Known	Not established	No data available

established

**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 may be required to avoid overexposure when handling this product. General or local exhaust ventilation is the preferred means of protection. Use a respirator if general room ventilation is not available or sufficient to eliminate symptoms.

**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>	260 °C 401 °C at 1013.25 hPa
<b>Melting Point (°C):</b>	-96.7 °C
<b>Flash Point (°F):</b>	No data available
<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>	0
<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.

**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:** 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 "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
DDT	50-29-3	Dermal LD50 Rabbit 300 - 2820 mg/kg
Benzidine	92-87-5	Oral LD50 Rat 309 mg/kg
Methane, dichloro-	75-09-2	Inhalation LC50 Rat 53 mg/L 6 h

**Component Carcinogenic Data:**

**OSHA:**

Chemical Name	CAS No.	
DDT	50-29-3	Present
Benzidine	92-87-5	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:**

Chemical Name	CAS No.	
DDT	50-29-3	A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans
Benzidine	92-87-5	A1 - Confirmed Human Carcinogen
Dichloromethane	75-09-2	A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans

**NIOSH:**

Chemical Name	CAS No.	
DDT	50-29-3	potential occupational carcinogen
Benzidine	92-87-5	potential occupational carcinogen
Methylene chloride	75-09-2	potential occupational carcinogen

**NTP:**

Chemical Name	CAS No.	
Benzidine	92-87-5	Known Human Carcinogen (listed under Benzidine and dyes metabolized to benzidine)

**IARC:**

Chemical Name	CAS No.	Group No.
Monograph 100F [2012]; Monograph 99 [2010]; Supplement 7 [1987]; Monograph 29 [1982]	92-87-5	Group 1
Monograph 117 [in preparation]; Monograph 71 [1999] (listed under Polychlorophenols and	87-86-5	Group 1

their sodium salts combined exposure); Monograph 53 [1991]  
 Monograph 113 [in preparation]; 50-29-3 Group 2A  
 Monograph 53 [1991];  
 Supplement 7 [1987]  
 Monograph 110 [in preparation]; 75-09-2 Group 2A  
 Monograph 71 [1999]

## 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:** Dichloromethane  
**UN Number:** UN1593  
**Hazard Class:** 6.1  
**Packing Group:** III

**International:**  
**IATA Proper Shipping Name:** Dichloromethane  
**UN Number:** 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:					
Chemical Name	CAS#	CERCLA	SARA 313	SARA EHS 313	TSCA
Dichloromethane	75-09-2	X	X	-	X
4,4'-DDT	50-29-3	X	-	-	X
benzidine	92-87-5	X	X	-	X

The following chemicals are listed on CA Prop 65:

Chemical Name	CAS #	Regulation
DDT	50-29-3	Prop 65 Cancer
Benzidine	92-87-5	Prop 65 Cancer
Pentachlorophenol	87-86-5	Prop 65 Cancer
Dichloromethane Dichloromethane (Methylene chloride)	75-09-2	Prop 65 Cancer
p,p"-DDT	50-29-3	Prop 65 Develop Tox
p,p"-DDT	50-29-3	Prop 65 Rep Female
p,p"-DDT	50-29-3	Prop 65 Rep Male

**State Right To Know Listing:**

Chemical Name	CAS#	New Jersey	Massachusetts	Pennsylvania	California
Dichloromethane	75-09-2	X	X	X	X
4,4'-DDT	50-29-3	X	X	X	X
DFTPP	5074-71-5	-	-	-	-
benzidine	92-87-5	X	X	X	X
pentachlorophenol	87-86-5	X	X	X	X

**16. OTHER INFORMATION**

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**Prior Version Date:** 07/06/17

**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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