

Material Safety Data Sheet



Method 525 Standard Mix 3 (High Concentration) Agilent Part Number 8500-5936

1. Product and company identification

Product name	: Method 525 Standard Mix 3 (High Concentration) Agilent Part Number 8500-5936
Material uses	: Analytical chemistry. 1 x 1 ml.
Supplier/Manufacturer	: Agilent Technologies, Inc. Logistics Center - Americas 500 Ships Landing Way New Castle, Delaware 19720
Part No.	: 8500-5936
Validation date	: 07/8/2010
<u>In case of emergency</u>	: 1-302-633-8777 1-877-4 Agilent (Information Telephone Number)

2. Hazards identification

Physical state	: Liquid.
Odor	: Minty.
OSHA/HCS status	: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
<u>Emergency overview</u>	
Signal word	: WARNING!
Hazard statements	: FLAMMABLE LIQUID AND VAPOR. INHALATION CAUSES HEADACHES, DIZZINESS, DROWSINESS AND NAUSEA AND MAY LEAD TO UNCONSCIOUSNESS. CAUSES RESPIRATORY TRACT AND EYE IRRITATION. MAY CAUSE SKIN IRRITATION. CONTAINS MATERIAL THAT MAY CAUSE TARGET ORGAN DAMAGE, BASED ON ANIMAL DATA.
Precautions	: Keep away from heat, sparks and flame. Do not breathe vapor or mist. Do not get in eyes. Avoid contact with skin and clothing. Use only with adequate ventilation. Keep container tightly closed and sealed until ready for use. Wash thoroughly after handling.
Routes of entry	: Dermal contact. Eye contact. Inhalation. Ingestion.
<u>Potential acute health effects</u>	
Inhalation	: Can cause central nervous system (CNS) depression. Irritating to respiratory system.
Ingestion	: Can cause central nervous system (CNS) depression.
Skin	: Slightly irritating to the skin.
Eyes	: Severely irritating to eyes. Risk of serious damage to eyes.
<u>Potential chronic health effects</u>	
Chronic effects	: Contains material that may cause target organ damage, based on animal data.
Carcinogenicity	: No known significant effects or critical hazards.
Mutagenicity	: No known significant effects or critical hazards.
Teratogenicity	: No known significant effects or critical hazards.
Developmental effects	: No known significant effects or critical hazards.
Fertility effects	: No known significant effects or critical hazards.
Target organs	: Contains material which may cause damage to the following organs: upper respiratory tract, skin, central nervous system (CNS), eye, lens or cornea.
<u>Over-exposure signs/symptoms</u>	

2. Hazards identification

- Inhalation** : Adverse symptoms may include the following:
nausea or vomiting
respiratory tract irritation
coughing
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
- Ingestion** : No specific data.
- Skin** : Adverse symptoms may include the following:
irritation
redness
- Eyes** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Medical conditions aggravated by over-exposure** : Pre-existing disorders involving any target organs mentioned in this MSDS as being at risk may be aggravated by over-exposure to this product.

See toxicological information (section 11)

3. Composition/information on ingredients

Name	CAS number	%
Acetone	67-64-1	60 - 100

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

4. First aid measures

- Eye contact** : Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.
- Skin contact** : In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.
- Inhalation** : Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.
- Ingestion** : Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
- Notes to physician** : No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

5. Fire-fighting measures

Flammability of the product : Flammable liquid. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard.

Extinguishing media

Suitable : Use dry chemical, CO₂, water spray (fog) or foam.

Not suitable : Do not use water jet.

Special exposure hazards : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. Accidental release measures

Personal precautions : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see section 8).

Environmental precautions : 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).

Methods for cleaning up : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor.

7. Handling and storage

Handling : Put on appropriate personal protective equipment (see section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Do not breathe vapor or mist. Do not ingest. Avoid contact with eyes, skin and clothing. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use non-sparking tools. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container.

Storage : Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

8. Exposure controls/personal protection

Ingredient	Exposure limits
Acetone	<p>ACGIH TLV (United States, 1/2009). STEL: 1782 mg/m³ 15 minute(s). STEL: 750 ppm 15 minute(s). TWA: 1188 mg/m³ 8 hour(s). TWA: 500 ppm 8 hour(s).</p> <p>NIOSH REL (United States, 6/2009). TWA: 590 mg/m³ 10 hour(s). TWA: 250 ppm 10 hour(s).</p> <p>OSHA PEL (United States, 11/2006). TWA: 2400 mg/m³ 8 hour(s). TWA: 1000 ppm 8 hour(s).</p> <p>OSHA PEL 1989 (United States, 3/1989). STEL: 2400 mg/m³ 15 minute(s). STEL: 1000 ppm 15 minute(s). TWA: 1800 mg/m³ 8 hour(s). TWA: 750 ppm 8 hour(s).</p>

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.

Engineering measures : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protection

Respiratory : 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.

Hands : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Eyes : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts.

Skin : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Other protection : Not available.

9. Physical and chemical properties

Physical state	: Liquid.
Flash point	: Closed cup: -18 to 23°C (-0.4 to 73.4°F)
Auto-ignition temperature	: Not available.
Flammable limits	: Not available.
Color	: Clear. Colorless.
Odor	: Minty.
pH	: Not available.
Boiling/condensation point	: Not available.
Melting/freezing point	: Not available.
Density	: Not available.
Vapor pressure	: Not available.
Vapor density	: Not available.
Odor threshold	: Not available.
Evaporation rate	: Not available.
Solubility	: Easily soluble in the following materials: cold water, hot water and acetone.

10. Stability and reactivity

Chemical stability	: The product is stable.
Conditions to avoid	: Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.
Materials to avoid	: Reactive or incompatible with the following materials: oxidizing materials.
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.

11. Toxicological information

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Acetone	LD50 Oral	Rat	5800 mg/kg	-

Conclusion/Summary : Not available.

Chronic toxicity

Conclusion/Summary : Not available.

Irritation/Corrosion

Conclusion/Summary : Not available.

Sensitizer

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Classification

Product/ingredient name	ACGIH	IARC	EPA	NIOSH	NTP	OSHA
Acetone	A4	-	-	-	-	-

Mutagenicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

11. Toxicological information

Conclusion/Summary : Not available.

12. Ecological information

Ecotoxicity : This material is very toxic to aquatic life. This material is toxic to aquatic life with long lasting effects.

Aquatic ecotoxicity

Product/ingredient name	Result	Species	Exposure
Acetone	Acute LC50 7550000 ug/L Fresh water	Crustaceans - Asellus aquaticus	48 hours
	Acute LC50 10000 ug/L Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 >100000 ug/L Fresh water	Fish - Pimephales promelas - Juvenile (Fledgling, Hatchling, Weanling) - 0.2 to 0.5 g	96 hours

Other adverse effects : No known significant effects or critical hazards.

13. Disposal considerations

Waste disposal : The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.


RCRA classification : D001; U002

Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements.





The information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

14. Transport information

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information
DOT	UN1090	Acetone solution	3	II		<p>Limited quantity Yes.</p> <p>Packaging instruction Passenger aircraft Quantity limitation: 5 to 5 L Packaging instructions: 173.161</p> <p>Cargo aircraft Quantity limitation: 60 to 60 L</p> <p>Special provisions IB2, T4, TP1</p>

14. Transport information

						Remarks Small Quantity
IMDG	UN1090	ACETONE solution. Marine pollutant (Aldrin (ISO))	3	II	 	Emergency schedules (EmS) F-E, S-D
IATA	UN1090	Acetone solution	3	II	 	Passenger and Cargo Aircraft Quantity limitation: 5 L Packaging instructions: 305 Cargo Aircraft Only Quantity limitation: 60 L Packaging instructions: 307 Limited Quantities - Passenger Aircraft Quantity limitation: 1 L Packaging instructions: Y305 Remarks Excepted Quantity

PG* : Packing group

15. Regulatory information

HCS Classification : Flammable liquid
Irritating material
Target organ effects

U.S. Federal regulations : **TSCA 4(a) final test rules:** Endrin (ISO)
TSCA 8(a) PAIR: Atrazine (ISO)
United States inventory (TSCA 8b): At least one component is not listed.
TSCA 8(d) H and S data reporting: Atrazine (ISO): 2006
SARA 302/304/311/312 extremely hazardous substances: No products were found.
SARA 302/304 emergency planning and notification: No products were found.
SARA 302/304/311/312 hazardous chemicals: Acetone
SARA 311/312 MSDS distribution - chemical inventory - hazard identification:
Acetone: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard
Clean Water Act (CWA) 307: Aldrin (ISO); (1 α ,2 α ,3 α ,4 β ,7 β ,7 α)-1,2,4,5,6,7,8,8-Octachloro-2,3,3a,4,7,7a-hexahydro-4,7-methano-1H-indene; (1 α ,2 β ,3 α ,4 β ,7 β ,7 α)-1,2,4,5,6,7,8,8-Octachloro-2,3,3a,4,7,7a-hexahydro-4,7-methano-1H-indene; Endrin (ISO); Heptachlor (ISO); Heptachlor epoxide; Gamma-HCH or gamma-BHC; Methoxychlor
Clean Water Act (CWA) 311: Aldrin (ISO); Endrin (ISO); Heptachlor (ISO); Gamma-HCH or gamma-BHC; Methoxychlor
Clean Air Act (CAA) 112 accidental release prevention: No products were found.
Clean Air Act (CAA) 112 regulated flammable substances: No products were found.
Clean Air Act (CAA) 112 regulated toxic substances: No products were found.

Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs) : Not listed

15. Regulatory information

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Listed

SARA 313

	Product name	CAS number	Concentration
Form R - Reporting requirements	Methoxychlor	72-43-5	<0.1

SARA 313 notifications must not be detached from the MSDS and any copying and redistribution of the MSDS shall include copying and redistribution of the notice attached to copies of the MSDS subsequently redistributed.

State regulations

Massachusetts : The following components are listed: ACETONE

New York : The following components are listed: Acetone

New Jersey : The following components are listed: ACETONE; 2-PROPANONE

Pennsylvania : The following components are listed: 2-PROPANONE

California Prop. 65

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

Ingredient name	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level
Alachlor (ISO)	Yes.	No.	No.	No.
Aldrin (ISO)	Yes.	No.	Yes.	No.
Endrin (ISO)	No.	Yes.	No.	No.
Heptachlor (ISO)	Yes.	Yes.	Yes.	No.
Heptachlor epoxide	Yes.	No.	Yes.	No.
Gamma-HCH or gamma-BHC	Yes.	No.	Yes.	No.

16. Other information

Label requirements : FLAMMABLE LIQUID AND VAPOR. INHALATION CAUSES HEADACHES, DIZZINESS, DROWSINESS AND NAUSEA AND MAY LEAD TO UNCONSCIOUSNESS. CAUSES RESPIRATORY TRACT AND EYE IRRITATION. MAY CAUSE SKIN IRRITATION. CONTAINS MATERIAL THAT MAY CAUSE TARGET ORGAN DAMAGE, BASED ON ANIMAL DATA.

Date of issue : 07/8/2010

Date of previous issue : No previous validation.

Version : 1

✔ Indicates information that has changed from previously issued version.

Notice to reader

Disclaimer: The information contained in this document is based on Agilent's state of knowledge at the time of preparation. No warranty as to its accurateness, completeness or suitability for a particular purpose is expressed or implied.