

Material Safety Data Sheet

NFPA 	HMIS <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="background-color: #00FFFF;">Health Hazard</td> <td style="text-align: center;">2</td> </tr> <tr> <td style="background-color: #FFCCCC;">Fire Hazard</td> <td style="text-align: center;">1</td> </tr> <tr> <td style="background-color: #FFFF00;">Reactivity</td> <td style="text-align: center;">0</td> </tr> </table>	Health Hazard	2	Fire Hazard	1	Reactivity	0	Personal Protective Equipment  See Section 15.
Health Hazard	2							
Fire Hazard	1							
Reactivity	0							

Section 1. Chemical Product and Company Identification		Page Number: 1	
Common Name/Trade Name	Amitraz	Catalog Number(s)	
		A3310	
Manufacturer	SPECTRUM LABORATORY PRODUCTS INC. 14422 S. SAN PEDRO STREET GARDENA, CA 90248	CAS#	
		33089-61-1	
Commercial Name(s)	Acarac, Amitraz estrella, Azadieno, Azaform, BAAM, Ectodex, Edrizar, Fumilat A, Mitaban, Mitac, Taktic, U-36059, Upjohn U-36059	RTECS	
		ZF0480000	
Synonym	1,5-Di(2,4-dimethylphenyl)-3-methyl-1,3,5-triazapenta-1,4-diene; 2-Methyl-1,3-di(2,4-xylylim;ino)-2-azapropane; N'-(2,4-Dimethylphenyl)-N-(((2,4-dimethylphenyl)imino)methyl)-N-methyl-N'-((Methylimino)dimethylidyne)di-2,4-xylidine; N,N-Bis(2,4-xylylim;inomethyl)methylamine; N,N-Di-(2,4-xylyliminomethyl)methylamine; N-Methyl-bis(2,4-xylyliminomethyl)amine; N-Methyl-N'-2,4-xylyl-N-(N-2,4-xylylformimidoyl)formamidine	TSCA	
		TSCA 8(b) inventory: No products were found.	
Chemical Name	2,4-Xylidine, N,N'-(methyliminodimethylidyne)bis-	CI#	
		Not available.	
Chemical Family	Not available.	IN CASE OF EMERGENCY CHEMTREC (24hr) 800-424-9300 CALL (310) 516-8000	
Chemical Formula	C19-H23-N3		
Supplier	SPECTRUM LABORATORY PRODUCTS INC. 14422 S. SAN PEDRO STREET GARDENA, CA 90248		

Section 2. Composition and Information on Ingredients					
Name	CAS #	Exposure Limits			% by Weight
		TWA (mg/m ³)	STEL (mg/m ³)	CEIL (mg/m ³)	
1) Amitraz	33089-61-1				100
Toxicological Data on Ingredients Amitraz: ORAL (LD50): Acute: 400 mg/kg [Rat (Registry of Toxic Effects of Chemicals)]. >1600 mg/kg [Mouse]. 523 mg/kg [Rat (Extoxnet; Oregon State University)]. DERMAL (LD50): Acute: >1600 mg/kg [Rat]. >200 mg/kg [Rabbit]. DUST (LC50): Acute: 65000 mg/m ³ 6 hours [Rat (Registry of Toxic Effects of Chemical Substances)].					

Section 3. Hazards Identification

Potential Acute Health Effects	Hazardous in case of ingestion. Slightly hazardous in case of skin contact (irritant, permeator), of eye contact (irritant), of inhalation. Severe over-exposure can result in death.
Potential Chronic Health Effects	<p>CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available.</p> <p>The substance may be toxic to liver, Urinary system, central nervous system (CNS). Repeated or prolonged exposure to the substance can produce target organs damage. Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.</p>

Section 4. First Aid Measures

Eye Contact	Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation occurs.
Skin Contact	In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Cover the irritated skin with an emollient. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.
Serious Skin Contact	Not available.
Inhalation	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if symptoms appear.
Serious Inhalation	Not available.
Ingestion	Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.
Serious Ingestion	Not available.

Section 5. Fire and Explosion Data

Flammability of the Product	May be combustible at high temperature.
Auto-Ignition Temperature	Not available.
Flash Points	Not available.
Flammable Limits	Not available.
Products of Combustion	These products are carbon oxides (CO, CO ₂), nitrogen oxides (NO, NO ₂ ...).
Fire Hazards in Presence of Various Substances	Slightly flammable to flammable in presence of heat. Non-flammable in presence of shocks.
Explosion Hazards in Presence of Various Substances	Slightly explosive in presence of open flames and sparks. Non-explosive in presence of shocks.
Fire Fighting Media and Instructions	SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. Do not use water jet.
Special Remarks on Fire Hazards	When heated to decomposition it emits toxic fumes of nitrous oxides
Special Remarks on Explosion Hazards	Not available.

Section 6. Accidental Release Measures

Small Spill	Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.
Large Spill	Poisonous solid. Stop leak if without risk. Do not get water inside container. Do not touch spilled material. Use water spray to reduce vapors. Prevent entry into sewers, basements or confined areas; dike if needed. Eliminate all ignition sources. Call for assistance on disposal. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

Section 7. Handling and Storage

Precautions	Keep away from heat. Keep away from sources of ignition. Do not ingest. Do not breathe dust. Wear suitable protective clothing. If ingested, seek medical advice immediately and show the container or the label.
Storage	Keep container tightly closed. Keep container in a cool, well-ventilated area.

Section 8. Exposure Controls/Personal Protection

Engineering Controls	Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.
Personal Protection	Safety glasses. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.
Personal Protection in Case of a Large Spill	Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.
Exposure Limits	Not available.

Section 9. Physical and Chemical Properties

Physical state and appearance	Solid. (Crystalline solid.)	Odor	Amine like. Odorless. (Slight.)
Molecular Weight	221.41 g/mole	Taste	Not available.
pH (1% soln/water)	Not applicable.	Color	Straw color.
Boiling Point	Not available.		
Melting Point	86°C (186.8°F) - 87 C		
Critical Temperature	Not available.		
Specific Gravity	Density: 1.1 (Water = 1)		
Vapor Pressure	Not applicable.		
Vapor Density	Not available.		
Volatility	Not available.		
Odor Threshold	Not available.		
Water/Oil Dist. Coeff.	The product is more soluble in oil; log(oil/water) = 5.5		
Ionicity (in Water)	Not available.		
Dispersion Properties	See solubility in water, acetone.		
Solubility	Soluble in acetone. Practically insoluble in cold water. Soluble in most organic solvents including toluene, and xylene. Solubility in water: 1mg/liter @ 25 deg. C		

Continued on Next Page

Section 10. Stability and Reactivity Data

Stability	The product is stable.
Instability Temperature	Not available.
Conditions of Instability	Excess heat, dust generation, incompatible materials
Incompatibility with various substances	Not available.
Corrosivity	Not available.
Special Remarks on Reactivity	It is unstable under acidic conditions
Special Remarks on Corrosivity	Not available.
Polymerization	Will not occur.

Section 11. Toxicological Information

Routes of Entry	Absorbed through skin. Inhalation. Ingestion.
Toxicity to Animals	WARNING: THE LC50 VALUES HEREUNDER ARE ESTIMATED ON THE BASIS OF A 4-HOUR EXPOSURE. Acute oral toxicity (LD50): 400 mg/kg [Rat]. Acute dermal toxicity (LD50): >200 mg/kg [Rabbit]. Acute toxicity of the dust (LC50): 65000 mg/m ³ 6 hours [Rat (Registry of Toxic Effects of Chemical Substances)].
Chronic Effects on Humans	May cause damage to the following organs: liver, Urinary system, central nervous system (CNS).
Other Toxic Effects on Humans	Hazardous in case of ingestion. Slightly hazardous in case of skin contact (irritant, permeator), of inhalation.
Special Remarks on Toxicity to Animals	Not available.
Special Remarks on Chronic Effects on Humans	May cause adverse reproductive effects based on animal test data. No human data found.
Special Remarks on other Toxic Effects on Humans	Acute Potential Health Effects: Skin: It is not considered a skin irritant or sensitizer, but may cause skin irritation in sensitive individuals. It may be absorbed by the skin Eyes: May cause eye irritation by mechanical action. Inhalation: May cause respiratory tract irritation. Ingestion: Harmful if swallowed. It may cause abdominal pain, vomiting, diarrhea, or decreased motility and colonic impaction. It may affect behavior/central nervous system/peripheral nervous system, brain, cardiovascular system, urinary system/kidneys, blood. Signs of acute poisoning may include coolness to touch (low body temperature or hypothermia), reduced spontaneous activity, sedation or lethargy, drowsiness, aggression, convulsions, tremors, debilitation, ataxic, coma(unconsciousness), spastic paralysis with or without sensory change, increased pulse rate, slow heart, beat(bradycardia), low blood pressure (hypotension) or high blood pressure (hypertension), bladder irritation, cystitis, acute renal failure, acute tubular necrosis. It may also cause hyperglycemia, miosis, anorexia, back pain and affect respiration (tachypnea, bradypnea, respiratory depression). Chronic Potential Health Effects: Ingestion: Long term or repeated exposure may affect the central nervous system urinary system, and liver.

Section 12. Ecological Information

Ecotoxicity	Ecotoxicity in water (LC50): 1.3 mg/l 96 hours [Fish (Blue gill sunfish)]. 3.2 mg/l 96 hours [Fish (harlequin fish)]. 2.7 mg/l 48 hours [Fish (Trout)].
BOD5 and COD	Not available.
Products of Biodegradation	Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.
Toxicity of the Products of Biodegradation	The products of degradation are less toxic than the product itself.
Special Remarks on the Products of Biodegradation	Amitraz is broken down rapidly in soil containing oxygen. The half-life in soil, the amount of time needed for the chemical to degrade to half its original concentration, is less than one day. Degradation occurs more rapidly in acidic soils than in alkaline or neutral soils.

Section 13. Disposal Considerations

Waste Disposal	Waste must be disposed of in accordance with federal, state and local environmental control regulations.
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Section 14. Transport Information

DOT Classification	Not a DOT controlled material (United States).
Identification	Not applicable.
Special Provisions for Transport	Not applicable.
DOT (Pictograms)	

**Section 15. Other Regulatory Information and Pictograms**

Federal and State Regulations	California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer, birth defects or other reproductive harm, which would require a warning under the statute: Amitraz California prop. 65: This product contains the following ingredients for which the State of California has found to cause birth defects which would require a warning under the statute: Amitraz Massachusetts RTK: Amitraz Massachusetts spill list: Amitraz New Jersey: Amitraz SARA 313 toxic chemical notification and release reporting: Amitraz
California Proposition 65 Warnings	California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer which would require a warning under the statute: No products were found. California prop. 65: This product contains the following ingredients for which the State of California has found to cause birth defects which would require a warning under the statute: Amitraz
Other Regulations	OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200). EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances.
Other Classifications	WHMIS (Canada) CLASS D-1B: Material causing immediate and serious toxic effects (TOXIC). DSCL (EEC) R22- Harmful if swallowed. S22- Do not breathe dust.

Continued on Next Page

HMIS (U.S.A.)

Health Hazard	2
Fire Hazard	1
Reactivity	0
Personal Protection	E

National Fire Protection Association (U.S.A.)

Health



Flammability

Reactivity

Specific hazard

WHMIS (Canada) (Pictograms)



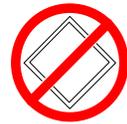
DSCL (Europe) (Pictograms)



TDG (Canada) (Pictograms)



ADR (Europe) (Pictograms)



Protective Equipment



Gloves.



Lab coat.



Dust respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate.



Safety glasses.

Section 16. Other Information**MSDS Code** A2335**References** Not available.**Other Special Considerations** Not available.

Validated by Sonia Owen on 8/11/2006.

Verified by Sonia Owen.

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CALL (310) 516-8000

Notice to Reader

All chemicals may pose unknown hazards and should be used with caution. This Material Safety Data Sheet (MSDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this MSDS. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this MSDS is based on technical data judged to be reliable, Spectrum Quality Products, Inc. assumes no responsibility for the completeness or accuracy of the information contained herein.