Hazardous Substance Fact Sheet

Common Name: ATRAZINE

Synonym: 6-Chloro-N-Ethyl-N’-(Methylethyl)-1,3,5-Triazine-2,4-Diamine
Chemical Name: 1,3,5-Triazine, 2,4-Diamine, 6-Chloro-N-Ethyl-N’-(1-Methylethyl)-

Date: June 1998  Revision: June 2007

CAS Number: 1912-24-9
RTK Substance Number: 0171
DOT Number: UN 2763 (Solid)
UN 2998 (Liquid)

Description and Use

Atrazine is a white crystalline (sand-like) solid or powder which is often mixed with a liquid “carrier.” It is used as a herbicide (weed killer) and a plant growth regulator.

Reason for Citation

- Atrazine is on the Right to Know Hazardous Substance List because it is cited by ACGIH, DOT, NIOSH, DEP, IARC, IRIS and EPA.

Eye Contact

- Immediately flush with large amounts of cool water for at least 15 minutes, occasionally lifting upper and lower lids. Remove contact lenses, if worn, while rinsing. Medical attention is necessary.

Skin Contact

- Remove contaminated clothing. Wash contaminated skin with soap and water.

Breathing

- Remove the person from exposure.
- Transfer promptly to a medical facility.

First Aid

EMERGENCY NUMBERS

Poison Control: 1-800-222-1222
CHEMTREC: 1-800-424-9300
NJDEP Hotline: 1-877-927-6337
National Response Center: 1-800-424-8802

Reason for Citation

- Atrazine can affect you when inhaled and by passing through your skin.
- Contact can irritate the skin and eyes.
- Atrazine may cause a skin allergy.
- Exposure to very high levels may affect the nervous system.
- Atrazine is often mixed in a liquid “carrier” which may be flammable or combustible.

Hazard Summary

<table>
<thead>
<tr>
<th>Hazard Rating</th>
<th>NJDOH</th>
<th>NFPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>HEALTH</td>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td>FLAMMABILITY</td>
<td>0</td>
<td>-</td>
</tr>
<tr>
<td>REACTIVITY</td>
<td>1</td>
<td>-</td>
</tr>
</tbody>
</table>

MAY BE FLAMMABLE OR COMBUSTIBLE
POISONOUS GASES ARE PRODUCED IN FIRE
CONTAINERS MAY EXPLODE IN FIRE

Hazard Rating Key: 0=minimal; 1=slight; 2=moderate; 3=serious; 4=severe

Workplace Exposure Limits

NIOSH: The recommended airborne exposure limit (REL) is 5 mg/m³ averaged over a 10-hour workshift.

ACGIH: The threshold limit value (TLV) is 5 mg/m³ averaged over an 8-hour workshift.

- The above exposure limits are for air levels only. When skin contact also occurs, you may be overexposed, even though air levels are less than the limits listed above.

See Glossary on page 5.
Determining Your Exposure

- Read the product manufacturer’s Material Safety Data Sheet (MSDS) and the label to determine product ingredients and important safety and health information about the product mixture.
- For each individual hazardous ingredient, read the New Jersey Department of Health Hazardous Substance Fact Sheet, available on the RTK website (www.nj.gov/health/eoh/rtkweb) or in your facility’s RTK Central File or Hazard Communication Standard file.
- You have a right to this information under the New Jersey Worker and Community Right to Know Act, the Public Employees Occupational Safety and Health (PEOSH) Act if you are a public worker in New Jersey, and under the federal Occupational Safety and Health Act (OSHA) if you are a private worker.
- The New Jersey Right to Know Act requires most employers to label chemicals in the workplace and requires public employers to provide their employees with information concerning chemical hazards and controls. The federal OSHA Hazard Communication Standard (29 CFR 1910.1200) requires private employers to provide similar information and training to their employees.

This Fact Sheet is a summary of available information regarding the health hazards that may result from exposure. Duration of exposure, concentration of the substance and other factors will affect your susceptibility to any of the potential effects described below.

Health Hazard Information

Acute Health Effects
The following acute (short-term) health effects may occur immediately or shortly after exposure to Atrazine:

- Contact can irritate the skin and eyes.

Chronic Health Effects
The following chronic (long-term) health effects can occur at some time after exposure to Atrazine and can last for months or years:

Cancer Hazard
- While Atrazine has been tested, it is not classifiable as to its potential to cause cancer.

Reproductive Hazard
- There is limited evidence that Atrazine may damage the developing fetus.

Other Effects
- Atrazine may cause a skin allergy. If allergy develops, very low future exposure can cause itching and a skin rash.
- Exposure to very high levels may affect the nervous system.

Medical

Medical Testing
If symptoms develop or overexposure is suspected, the following are recommended:

- Evaluation by a qualified allergist will help diagnose skin allergy.
- Exam of the nervous system

Any evaluation should include a careful history of past and present symptoms with an exam. Medical tests that look for damage already done are not a substitute for controlling exposure.

Request copies of your medical testing. You have a legal right to this information under the OSHA Access to Employee Exposure and Medical Records Standard (29 CFR 1910.1020).

Workplace Controls and Practices

Very toxic chemicals, or those that are reproductive hazards or sensitizers, require expert advice on control measures if a less toxic chemical cannot be substituted. Control measures include: (1) enclosing chemical processes for severely irritating and corrosive chemicals, (2) using local exhaust ventilation for chemicals that may be harmful with a single exposure, and (3) using general ventilation to control exposures to skin and eye irritants. For further information on workplace controls, consult the NIOSH document on Control Banding at www.cdc.gov/niosh/topics/ctrlbanding/.

The following work practices are also recommended:

- Label process containers.
- Provide employees with information and training concerning their hazards.
- Monitor airborne chemical concentrations.
- Use engineering controls if concentrations exceed recommended exposure levels.
- Provide eye wash fountains and emergency showers.
- Wash or shower if skin comes in contact with a hazardous material.
- Always wash at the end of the workshift.
- Change into clean clothing if clothing becomes contaminated.
- Do not take contaminated clothing home.
- Special training is required to wash contaminated clothing.
- Do not eat, smoke, or drink in areas where chemicals are being handled, processed or stored.
- Wash hands carefully before eating, smoking, drinking, applying cosmetics or using the toilet.
Personal Protective Equipment

The OSHA Personal Protective Equipment Standard (29 CFR 1910.132) requires employers to determine the appropriate personal protective equipment for each hazard and to train employees on how and when to use protective equipment.

The following recommendations are only guidelines and may not apply to every situation.

Gloves and Clothing

- Avoid skin contact with Atrazine. Wear personal protective equipment made from material which cannot be permeated and/or degraded by this substance. Safety equipment suppliers/manufacturers can provide recommendations on the most protective glove/clothing material for your operation.
- All protective clothing (suits, gloves, footwear, headgear) should be clean, available each day, and put on before work.

Eye Protection

- Wear eye protection with side shields or goggles.
- Wear a face shield along with goggles when working with corrosive, highly irritating or toxic substances.

Respiratory Protection

*Improper use of respirators is dangerous.* Such equipment should only be used if the employer has a written program that takes into account workplace conditions, requirements for worker training, respirator fit testing, and medical exams as described in the OSHA Respiratory Protection Standard (29 CFR 1910.134).

- For field applications check with your supervisor and your safety equipment supplier regarding the appropriate respiratory equipment.
- Where the potential exists for exposure over 5 mg/m³, use a NIOSH approved supplied-air respirator with a full facepiece operated in a pressure-demand or other positive-pressure mode. For increased protection use in combination with an auxiliary self-contained breathing apparatus operated in a pressure-demand or other positive-pressure mode.

Fire Hazards

If employees are expected to fight fires, they must be trained and equipped as stated in the OSHA Fire Brigades Standard (29 CFR 1910.156).

- Atrazine is a noncombustible solid. However, it may be mixed with flammable or combustible “carrier” liquids.
- Use dry chemical, CO₂, water spray or a foaming agent.
- POISONOUS GASES ARE PRODUCED IN FIRE, including Hydrogen Chloride and Nitrogen Oxides.
- CONTAINERS MAY EXPLODE IN FIRE.
- Use water spray to keep fire-exposed containers cool.

Spills and Emergencies

If employees are required to clean-up spills, they must be properly trained and equipped. The OSHA Hazardous Waste Operations and Emergency Response Standard (29 CFR 1910.120) may apply.

If Atrazine is spilled or leaked, take the following steps:

- Evacuate personnel and secure and control entrance to the area.
- Eliminate all ignition sources.
- Dampen powdered material with water and collect in the most convenient and safe manner and deposit in sealed containers.
- Absorb liquids in vermiculite, dry sand, earth, or a similar material and deposit in sealed containers.
- Ventilate and wash area after clean-up is complete.
- DO NOT wash into sewer.
- It may be necessary to contain and dispose of Atrazine as a HAZARDOUS WASTE. Contact your state Department of Environmental Protection (DEP) or your regional office of the federal Environmental Protection Agency (EPA) for specific recommendations.

Handling and Storage

Prior to working with Atrazine you should be trained on its proper handling and storage.

- Atrazine is not compatible with STRONG ACIDS (such as HYDROCHLORIC, SULFURIC and NITRIC) and STRONG BASES (such as SODIUM HYDROXIDE and POTASSIUM HYDROXIDE).
- Store in tightly closed containers in a cool, well-ventilated area.
Occupational Health Information Resources

The New Jersey Department of Health offers multiple services in occupational health. These include: Right to Know Information Resources, Public Presentations, General References, Industrial Hygiene Information, Surveys and Investigations, and Medical Evaluation.

For more information, please contact:

New Jersey Department of Health
Right to Know
PO Box 368
Trenton, NJ 08625-0368
Phone: 609-984-2202
Fax: 609-984-7407
E-mail: rtk@doh.state.nj.us
Web address: http://www.nj.gov/health/eoh/rtkweb

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Acaricides are compounds that are applied to crops to control or eradicate pests such as mites or insects. They are used in agriculture to protect plants and increase crop yields.

Agricultural chemicals are substances used in farming to enhance crop growth and yield. These chemicals can be natural products or synthetic compounds designed to combat various pests, diseases, or weeds.

Agricultural pest management involves the use of chemical and biological methods to control pests that threaten crop health. This includes the application of pesticides, the cultivation of pest-resistant crops, and the use of natural predators to balance ecosystems.
Common Name: **ATRAZINE**

Synonyms: AAtrex®, Gesaprim®, Vectal
CAS No: 1912-24-9
Molecular Formula: \( \text{C}_8\text{H}_{14}\text{ClN}_5 \)
RTK Substance No: 0171
Description: White, crystalline solid which is often mixed with a liquid (carrier).

### HAZARD DATA

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<th>Reactivity</th>
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**DOT#:**
- UN 2763 (Solid)
- UN 2998 (Liquid)
**ERG Guide #:** 151
**Hazard Class:** 6.1 (Poison)

### SPILLS/LEAKS

- **Isolation Distance:** 50 meters for liquids (150 feet) and 25 meters for solids (75 feet)
- Dampen solid spills with water before collection.
- Absorb liquids in vermiculite, dry sand, earth, or a similar material and deposit in sealed containers.
- Do NOT wash into sewer.
- Hazardous to plants, soil organisms and aquatic organisms.

**Odor Threshold:** No information
**Flash Point:** Noncombustible
**UEL:** No information
**Vapor Pressure:** 0.0000003 mm Hg at 68°F (20°C)
**Boiling Point:** Decomposes
**Ionization Potential:** No information

### PHYSICAL PROPERTIES

- **Gloves:** No information
- **Coverall:** No information
- **Boot:** No information
- **Respirator:** Supplied air

### PROTECTIVE EQUIPMENT

### HEALTH EFFECTS

- **Eyes:** Irritant
- **Skin:** Irritant
- **Acute:** Skin and eye irritation
- **Chronic:** Cancer - tested (Not Classifiable). Skin allergy, may affect the nervous system.

### FIRST AID AND DECONTAMINATION

- Flush eyes with large amounts of water for at least 15 minutes.
- Remove contact lenses, if worn, while rinsing.
- Remove contaminated clothing. Wash contaminated skin with soap and water.
- Remove the person from exposure.
- Transfer to a medical facility.

June 2007