STANDARD OPERATION PROCEDURES FOR WORKING WITH SODIUM AZIDE AT AMHERST COLLEGE

AUGUST 2019

General Information

Sodium Azide is an acutely hazardous, odorless solid, that poses considerable risk to lab personnel. It is commonly used as an explosive trigger in airbags, and a toxic component in pesticides.

Sodium Azide poses considerable risks to humans and the environment and hence special precautions must be taken in both its use and disposal.

Personal Protective Equipment

When working with Sodium Azide, the following Personal Protective Equipment (PPE) must be worn:

Splash goggles
Lab coat
Long pants
Close toed shoes
Nitrile Gloves (double gloving recommended, change gloves immediately after glove contact)

Safety Devices

Fume hood – always work with Sodium Azide in a fume hood to prevent exposure by inhalation.

Identify the location of all the safety devices in the room before starting your procedure. Also, familiarize yourself with all the possible means of egress. Keep safety devices and means of egress clear at all times.

Specific Health Hazards

Note that Sodium Azide has a recommended Skin Exposure Ceiling Value of 0.3mg/m³. This means that, at no time, personnel should come into contact with a concentration higher than this.

Pictogram:

Hazards: Toxic, Carcinogenic, Environmental
Routes of Entry

Inhalation, ingestion, skin/eye contact.

If any part of your body comes in contact with Sodium Azide, call the Amherst College Police Department (ACPD) phone number 413-542-2111. Also call this number if you begin to feel ill after working with (or in the vicinity of) Sodium Azide.

Choose corresponding route of entry and action – note that the actions listed for each route of entry may vary depending on chemical; consult Safety Data Sheet.

Inhalation

If inhaled, move to fresh air, and get help. If you begin to feel ill during/after working with Sodium Azide, call the Amherst Police Department (ACPD) at x2111 to report it.

Eye contact

Use eyewash to flush eyes with water for at least 15 minutes. Remove contact lenses, if present.

Skin Contact

Call the Amherst College Police Department (x2111).

Wash skin with plenty of water for 15 minutes. Use safety shower, if needed.

Ingestion

Do not induce vomiting, rinse mouth, drink plenty of water, etc.

Storage and Special Handling

Store in a tightly closed container in a cool, dry area that is well ventilated; preferably not on a shelf. Store in a secondary container with a lid.

Label container with the following: “Acutely Toxic”.

Compounds incompatible with Sodium Azide are oxidizers and acids.

If you have Sodium Azide (solid or in solution) that you no longer need, please contact Jason Williams at x2736, for disposal.

Special Handling

No special handling

Spill clean up

Please do not attempt to clean up a Sodium Azide spill as this is an acutely toxic compound.

If a spill of ANY volume occurs:
Alert everyone in the area
Leave the room
Close the door behind you
Call Jason Williams (Chemical Hygiene Officer) at x2736 or the Amherst College Police Department (x2111) to report it.

**Due to the high toxicity of this compound, clean up shall not be done by lab personnel.**

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**Disposal**

Disposable pipets, pipet tips, and any other disposable devices – such as gloves, that come in contact with Sodium Azide shall be disposed of as hazardous waste. All contaminated PPE shall be disposed of as hazardous waste.

Waste containing acutely hazardous chemicals shall not be mixed with other types of waste.

Sodium Azide should never be bulked with other chemicals.

**Empty containers of Sodium Azide must be disposed of as hazardous waste.**

If you have Sodium Azide that you no longer need, contact Jason Williams (Chemical Hygiene Officer) at x2736.

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**Questions**

Contact Jason Williams or Environmental Health and Safety if you have any questions about this SOP or this compound.