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"Protecting Against Poisoning"

Poison Insider

The Poison Information Newsletter

Volume 2, Issue 1

February, 2009

Editorial

The Caribbean Poison Information Network (CARPIN) is pleased to present the second volume of the Poison Insider Newsletter. The first volume was produced specifically for health care professionals. However, for this and subsequent issues we will aim to provide poison information that will be useful for both health professionals and the lay-person.

Accidental poisoning is a major threat to morbidity and mortality worldwide, especially in children under five years old. In 2007, 75% of accidental poisoning cases in Jamaica occurred in children under five years old. Improper storage is the major risk factor for accidental poisoning in children (MOHE, Jamaica, 2007). Bleach continues to be the major agent implicated in accidental poisoning.

The Poison Insider Newsletter will be published bi-annually. Each issue will keep you up-to-date with the happenings of CARPIN, issues relating to poisons in the news, pesticides, poison prevention tips and more. We hope that the information provided will serve to heighten your awareness of poisons and poisonings and engage your partnership in helping to reduce its occurrence.

We encourage your comments!

CARPIN HAPPENINGS

Poison Prevention Week 2008

CARPIN celebrated its fourth Poison Prevention Week May 25th – June 1st & 7th, 2008 under the theme "Poison Prevention: A Must for a Better Quality of Life"

The Schools' Competition

under the theme: "Safe Medication Use: A Key to Poison Prevention" got underway with 19 schools from Jamaica and the Cayman Islands exhibiting their talents in the visual and performing arts.

Sweet Poisons!



The sweet scent (fragrance) that is given off when you use some household pesticides are from Volatile Organic Compounds (VOC). These fragrances are used to mask the odour of other ingredients or to carry the active ingredients.

It is important to note that even though these pesticides have a fragrance they still contain an active ingredient designed to kill pests, therefore the presence of this fragrance does not mean that it is safe to remain in any area where these pesticides are being used.

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Calendar of Events 2009

January 29: Launch of Schools' Competition (Bridgeport Infant School)

February 15—Basil Dawkins Play "Which Way Is Out" (Little Little Theatre)

March 15: Training Seminar/Workshop (venue to be announced)

May 24 – 31: Poison Prevention Week – **Theme: "Are we Poisoning Ourselves?"**

October 4: Training Seminar/Workshop (venue to be announced)

Cassava

Cassava also known as manioc, yuca and mandioca, is the world's third largest source of carbohydrates for human consumption. It contains very little protein. In Jamaica cassava is used to make 'bammy', cassava chips and flour. The leaves should not be eaten raw because of the toxic cyanogenic glycosides which is converted to cyanide by an enzyme in cassava.

Varieties

Cassava is usually classified as 'bitter' or 'sweet' depending on the cyanide content. This can range from 15-400 mg/kg fresh weight of hydrogen cyanide in cassava roots. The 'bitter' variety can produce over 50 times as much cyanide per kilogram of fresh

cassava roots as the 'sweet' variety. Cassavas cultivated during drought are high in these toxins.

Toxicity

The potential for human toxicity from cassava depends on the concentration of hydrogen cyanide when eaten. This may be due to poor preparation and insufficient processing. Approximately 50-60 mg of free cyanide from cassava may be lethal to an adult man. Chronic sub-lethal dietary consumption has reportedly caused thyroid problems, reproductive and behavioural effects. Excessive consumption of 'bitter' cassava may cause konzo— a paralytic neurologic disease. Acute cyanide toxicity from inadequately prepared cassava can cause stomach pains, headache, diarrhoea,

mental confusion among other things.

Preparation/Processing

Peeling, slicing or crushing the cassava releases the poison which can further be removed by baking, boiling, roasting or fermentation.

Antidote: Persons with suspected poisoning should seek medical attention. Hydroxocobalamin or sodium nitrite/sodium thiosulphate kit is administered to patients with symptoms of cyanide poisoning.



Cassava

Melamine– The 2008 Chinese Milk Scandal

Melamine is a white crystalline substance that contains 66% nitrogen. It has been used in the manufacture of plastics, as a fertilizer for crops, a colourant in ink and plastics and to make high resistant concrete. Protein is the major component of most foods that contain nitrogen. Because standard tests estimate protein level by measuring the nitrogen content, melamine is at times illegally added to increase the apparent protein content of foods.

Toxicity

Melamine is non-toxic in low doses. It is an eye, skin and respiratory irri-

"The Bureau of Standard Jamaica (BSJ) said ...none of the toxic milk products that have killed four Chinese infants and sickened about 54,000 more, have been found in the island so far."
—The Jamaica Observer: Wednesday, Nov. 26, 2008

tant. Chronic ingestion may cause bladder or kidney stones, bladder cancer and reproductive damage.

In the News

China is the main exporter of melamine. Traces of melamine has been found in certain food products in China. Material containing melamine

but labeled as wheat gluten and rice protein was exported from China to pet food companies. This has led to deaths of some pets. Infant formula and milk tainted with melamine have caused illness in thousands of people and deaths of some young children. According to the Bureau of Standards, Jamaica, no melamine-tainted milk products have been found in Jamaica. The problem however, may be with the illegal movement of products that may be heavily contaminated with melamine. They urged consumers to be aware of recalls, read labels and ask questions in order to make informed decisions.

The Pacific Lionfish in Jamaican Waters

The Pacific Lionfish recently surfaced in the Jamaican waters. The lionfish is naturally found in the Indo-Pacific region but has invaded the warmer Caribbean waters.

Toxicity

Although beautiful to look at, the lionfish is among the most poisonous fish on the ocean floor. It brandishes its venomous dorsal spines when threatened. However, its sting is usually not fatal to humans. If stung, you may

experience severe pain and swelling at affected area, headaches, difficulty breathing, nausea and vomiting.

Treatment

If stung, wash wound with fresh water and remove any broken spines if possible. Soak the injured area in non-scalding hot water for 30-90 minutes.



The venom contains proteins that are denatured by heat. Fishermen or divers who do not have access to hot water should have a hot pack on-board. Elevate wounded extremity until the swelling recedes.

The victim should seek medical attention. Appropriate anti-tetanus agent, antibiotics and painkillers may be necessary. Besides the hazard to humans, the lionfish has very few natural enemies and can become a threat to other marine species.

Case Report: Incident Involving Chlorine Gas

Introduction: Chlorine gas, also known as bertholite has been used in warfare, first in World War I and again in 1997 against the Iraqis.¹ The element is used for purifying drinking water and in swimming pools. In Jamaica, reported accidental poisoning cases due to chlorine have mainly been in the form of bleach.²

Case Report: An old cylinder exploded at a high school in rural Jamaica releasing chlorine gas. Sixty to eighty (60-80) persons were affected. Victims experienced irritation of the respiratory tract, headaches, belly pains, nausea, vomiting and wheezing in asthmatic patients. Those that required treatment were nebulized with salbutamol and lidocaine HCL; oral and IV steroids and acetaminophen were also given.

Discussion: Inhalation is the main route of exposure to chlorine gas and is detected in concentrations as low as 1 ppm, which is enough to produce mild mucus membrane irritation. Information regarding the concentration is not known. However, exposure to 3-6 ppm produces burning of the eyes, nose and throat, sneezing, coughing and bloody nose, among other symptoms.³ Chlorine is a toxic, corrosive gas that affects the respiratory system—some symptoms of which were experienced by persons in the incident. Recommended treatment/management involves: monitoring for respiratory distress and maintaining ventilation and oxygenation. Treat bronchospasm with inhaled beta-2-agonist and oral or parental corticosteroid.³ Bronchocon-

striction can be alleviated with inhaled lidocaine or salbutamol. However, lidocaine inhalation alone can cause considerable initial bronchoconstriction in patients with hyperactive airways. Pre-treatment with salbutamol prevents this problem and further alleviates bronchial hyperactivity.⁴

Conclusion: Exposure to chlorine gas is potentially dangerous. Cylinders should be routinely checked for leaks. Gas leaks may be detected by placing a rag dampened with ammonia over the system. White fumes indicate escaping gas. Cylinders should be stored in a well ventilated area, protected from the weather. They should be in an upright position

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Sweet Poisons!

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The insecticide in the product has the potential to be harmful to health if excessive exposure occurs. In addition, exposure to fragrance chemicals can cause headaches, eye, nose and throat irritation, nausea and other respiratory symptoms. Many fragrance ingredients are respiratory irritants which can result in asthma attacks and aggravation of sinus conditions.

It is advised that users of these fragrance pesticides do not remain in

the area that they are being used. It is recommended that the room be sprayed and remain closed for 10 to 20 minutes then properly ventilated before re-entry. Always follow the manufacturers' instructions as given on the product label.

Contributed by: Pesticides Control Authority, Jamaica

DID YOU KNOW ???



All potatoes contain low levels of a toxin called glycoalkaloids. Green parts, sprouted potatoes and potatoes stored in light have higher levels of the toxin and should not be eaten. If the potato tastes bitter, do not eat. Store potatoes in cool, dark and dry place.

<http://www.food.gov.uk/multimedia/pdfs/naturalltoxins>

Poison Prevention Tips

- Use safety locks on all cabinets, cupboards and containers where potential poisons are stored.
- Store all potential poisons, bleach, other household and chemical products out of the sight and reach of children.



- Return products to safe storage immediately after use.



CARPIN Poison Prevention Week 2009

May 24: Church Service (venue to be announced)

May 26: Judging of Schools' Competition Posters

May 28: Announcement of winners of posters. Judging of Performing Arts Competition. Public Forum. Awards Function (St. Andrew Parish Church Hall, 16 Ellesmere Road, Kingston10)

May 30 – 31: Fourth Annual Scientific Conference (Terra Nova All Suite Hotel, Kingston Jamaica)

CARPIN HAPPENINGS

Continued from Pg. 1

A Pharmacovigilance Workshop attracted Pharmacists, Doctors, Nurses and other scientists.

The Annual Scientific Conference, much anticipated by many individuals in particular Pharmacists, highlighted medications as potential poisoning agents along with herbs, household chemicals and pesticides.

Educational Training, Outreach and Promotion- Several health fairs, presentations and representation in the media were done.

The fourth poison prevention Training of Trainers Workshop held in October, 2008 closed off the series of workshops covering the island.

INCIDENT

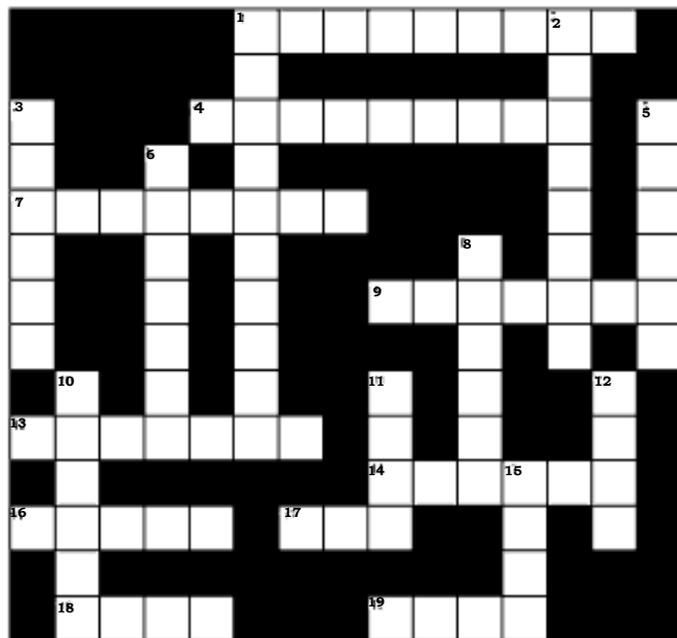
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with the valve outlets sealed and the valve protection caps in place. Storage temperature should not exceed 51.7° C. Cylinders must not be dragged, rolled or dropped. Regulators and valves must be kept free of moisture as most metals are corroded in the presence of moisture.⁵

References:

1. Chlorine <http://en.wikipedia.org/wiki/Chlorine> (22/10/08)
2. Accidental Poisoning Facts and Figures, Jamaica, 2007 (MOHE)
3. MICROMEDEX® Healthcare series Vol. 137
4. Combined lidocaine and salbutamol inhalation for airway anaesthesia markedly protects against reflex bronchoconstriction <http://www.chestjournal.org/content/118/2/509.full> (3/2/09)
5. Standard Operating Procedure for Chlorine Gas http://www.materials.drexel.edu/safety/SOP/sop_chlorine_gas.pdf (23/12/08)

Poison Puzzle



Across

1. A product that kills pests
4. Never call these candy
7. Household products that get rid of dirt, but could be harmful if swallowed
9. Always use the original container for _____ of chemicals
13. ngarwin (unscramble to make a word that means caution)
14. If someone swallows poison, call the poison control _____
16. Keep out of children's _____
17. Children should always _____ first before tasting or smelling anything.
18. A place where children play outside their home
19. Used for seeing

Down

1. To keep a bad thing from happening
2. Getting rid of a hazardous substance
3. Person who you see when you get sick
5. grande (unscramble to make a word that means threat/risk)
6. A synonym for warning
8. Something that can make you sick if you use it improperly
10. One should always put this first
11. Something on a cupboard or door that keeps people out
12. Like hurt
15. Read labels first and wear protective clothing are examples of poison prevention _____

Across Answers

- 17-ask
18-yard
19-eyes
4-medcines
7-Cleaners
9-storage
13-warning
14-center

Down Answers

- 11-lock
12-harm
15-tips
16-reach
3-doctor
5-danger
6-caution
8-poison
10-safety

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Special thanks to Community Service Volunteers/students: Tara Brown for assisting with compilation and research, Ebony Dollard and Marsha Cousins for assisting with research.