Frequently Asked Questions About **Manganese**

What is manganese?

- Manganese is a naturally occurring element found in rocks, soil, water, plants and animals.
- Manganese is also present in the environment from industrial activity such as steel production.
- Manganese is necessary for human health and is a normal part of a healthy diet.

How are people exposed to manganese?

- Eating food and nutritional supplements containing manganese.
    - Nuts, seeds and tea can contain an especially large amount of manganese, so vegetarians and tea drinkers might have higher amounts of manganese in their bodies.
- Drinking water containing manganese.
- Smoking, hookah or vaping.
- Breathing secondhand smoke or vape aerosols.

- Breathing in air with manganese due to mining operations or automobile exhaust.
- Breathing in pesticides that contain manganese, such as Maneb.
- Breathing or touching manganese during metal work, such as steelmaking and welding.

How can manganese harm people's health?

Most people will be exposed to small amounts of manganese during their lifetime because it is commonly found in the environment and it is part of a healthy diet. Manganese is usually not harmful, but high amounts can increase the risk of health effects, including:

- Harm to the nervous system causing changes to memory, thinking, mood, and motor skills.
- A neurological disorder known as manganism. Symptoms include tremors, difficulty walking and facial muscle spasms.
- Lung inflammation and impaired lung function when large amounts are breathed in.

How can people reduce their exposure to manganese?

- Find out if there is manganese in private drinking water by having private drinking water wells tested for manganese.
    - Michiganders can find more information on testing and maintaining their private well at bit.ly/CareforMiWell, by calling MDHHS at 800-648-6942 or contacting their local health department.
- Drinking water that comes from a public water supply may be tested for manganese, but it is not required.

    - For reports on public water supplies, check the United States Environmental Protection Agency's Consumer Confidence Reports (CCRs) at epa.gov/ccr or contact your local water utility.

- Avoid breathing in smoke or vape aerosols.
    - For resources on quitting smoking, call 1-800-QUIT-NOW.
- Weld metals in a well-ventilated area and use personal protective equipment (PPE).
- Thoroughly clean produce and peel the outer skin from root vegetables (e.g., carrots, beets, turnips) to remove dirt.
- When working at a job with the potential for manganese exposure:
    - Practice good personal hygiene by washing hands often, especially before eating or drinking, and by showering after working.
    - Use PPE as directed.
    - Do not eat, drink, smoke or vape in the workplace.

Questions?

Call 1-800-648-6942 or visit Michigan.gov/DEHBio and click on "MiChEM" to view additional resources.