

Resolute's Prevention and Emergency Measures

The principal measures that have been implemented at the Thunder Bay Mill Site include:

- Risk management system to ensure all risks are managed and mitigated;
- Equipment maintenance procedures and programs;
- Comprehensive training programs that include start up, shut down, emergency and other operational procedures;
- Network of high-technology surveillance and control systems;
- 24-hour monitoring of the process by qualified operators;
- Policies requiring all equipment or process changes endure a multi disciplinary evaluation and authorization process;
- Mechanical integrity program that meets or exceeds industrial standards;
- Environment, health and safety training for all employees and contractors;
- Regular emergency drills conducted in conjunction with the local fire department;
- Emergency response team in place 24 hours a day;
- Comprehensive emergency response plan;
- Preventative incident -investigation procedures;
- Regular internal and external audits to ensure risk management.

Resolute's facility attains excellent results by identifying hazards and implementing controls to eliminate injuries.



INFORMATION BROCHURE ON RISK MANAGEMENT OF MAJOR INDUSTRIAL INCIDENT



Sodium Chlorate



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Remember to keep this Information Brochure handy!

About Resolute Forest Products

Resolute Forest Products is a global leader in the forest products industry with a diverse range of products, including market pulp, tissue, wood products, newsprint and speciality papers, which are marketed in close to 70 countries. The company owns or operates some 40 facilities, as well as power generation assets, in the United States and Canada.

Resolute has third-party certified 100% of its managed woodlands to internationally recognized sustainable forest management standards in the region.

Market pulp is one of the products manufactured at the Thunder Bay mill. This pulp can be found in everyday products including paper towels, coffee filters, disposable diapers, facial tissue and toilet paper. The Thunder Bay mill also produces newsprint. Annual capacity of the facility is 535,000 metric tons. The mill also employs over 400 people and contributes significantly to Resolute's \$430.2 million dollar economic impact in Northern Ontario.

Our Process

Sodium chlorate (NaClO₃) is mainly used in the on-site production of chlorine dioxide for kraft pulp bleaching. Sodium chlorate is shipped to the Mill in a solid form and dissolved when ready to use.



Quick Facts

The Characteristics of Sodium Chlorate

- ▶ In appearance it's a white powder or colourless crystals
- ▶ It's a powerful oxidizing agent
- ▶ It's a universal herbicide
- ▶ Under normal conditions of use, storage and transport the product is stable
- ▶ If exposed to temperatures >300 C, the product will decompose and support the rapid combustion of organic materials
- ▶ It's hygroscopic; it will turn into a pool of solution if left uncovered
- ▶ Its main industrial use is to generate chlorine dioxide to bleach pulp

Health Impacts

Although it is unlikely that such an incident would occur, exposure to Sodium Chlorate could potentially cause the following health impacts

Route of Exposure	Description
Eye Contact (Liquid Form Only)	May cause eye irritation.
Skin Contact (Liquid Form Only)	May cause skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin.
Inhalation (Crystal/Dry Form Only)	Cyanosis may be noted within several hours following inhalation or ingestion. Pulmonary congestion can also occur.

What to do?

In the event of a major industrial incident involving a toxic release...

How will the population be alerted?

In the event of an incident of this type, the population is at risk and will be notified immediately on local radio and television stations. Safety instructions will be broadcasted in the event of an accidental release.

If you are contacted by an automated phone alert system or, if you hear about an incident on the local radio or television:

Tune into local radio or TV Stations for details and stay tuned for updates.

In case the alarm is sounded:

- Unless otherwise instructed, immediately enter the closest building.
- Shelter in Place: tightly close all doors and windows, turn off all ventilation, heating, air exchange and air conditioning systems.
- Retrieve your first aid kit and keep it handy.
- Block any air vents in the room using wet towels, plastic film or tape
- Do not pick up your children from school. Teachers will apply the same instructions for the safety of your children.
- The safety and security of people in public areas (malls, hospitals etc.) will be managed by the personnel of those areas with the assistance of police and fire.
- If you are in a vehicle, immediately drive out of the affected zone as fast as possible while respecting speed limits and other traffic signs. Close your car windows and turn the heat or air conditioning off.
- Tune into the local radio station and follow the instructions.
- Evacuation instructions will be broadcast if necessary.
- Free up the phone lines for emergency services as needed.
- Do not leave your house or building until you've received information that there is an all-clear or you are instructed by the authorities to do so.



To avoid breathing the toxic substances

Quickly and safely enter inside the closest building.



To avoid the toxic substances from entering a building

Do not stay outside. Close and block openings for windows and doors. Stop all ventilation.



For further instructions, listen to the radio

Comply with the instructions from the authorities.



To avoid exposure of children

Do not pick up your children at school.



Call 911 only in case of emergency

Do not call 911 to obtain information. The phone lines must be kept free for emergency services to freely communicate with those impacted

Call 911 only if you have an emergency and need help.