



Neighbour information from Herøya Industrial Park

Security and notification



Foto: Tom Riis



HAZARDOUS CHEMICALS: informa

	AMMONIA	NITROGEN OXIDES (NO _x)	ETHANE/PROPANE/ BUTANE (WET GAS)
Substance properties	Colourless toxic gas with an intense, pungent odour that is noticeable at very low concentrations.	Reddish brown in colour at high concentrations and has a slightly sweet, nauseating odour.	Wet gas is colourless and almost odourless. The gas is heavier than air.
Impact on health, safety and the environment	<p>Attacks eyes and airways, causing coughing and watery eyes.</p> <p>In high concentrations, ammonia is toxic and hazardous to health if inhaled.</p> <p>Ammonia is hazardous to the environment.</p>	Extremely toxic when inhaled at high concentrations.	<p>Extremely flammable and may ignite in the event of emissions.</p> <p>Fire hazard to people, buildings and the environment.</p>
Possible incidents which can lead to major accidents	Ruptures in tanks or pipelines can cause a gas cloud with a dangerous concentration, to a distance of several kilometres.	<p>Significant emissions from production or from the storage of nitric acid</p> <p>Fission reactions in mineral fertiliser.</p>	Stored in containers under pressure, which may split when directly affected by naked flames, resulting in the formation of a fire ball (BLEVE).

Alarm levels at Herøya Industrial Park

Alarm levels in Herøya Industrial Park's industrial safety plan are divided into three levels.

Local alarm

Local alarm is a situation that only affects a single factory in the industrial park and poses no danger to the surroundings outside the factory or industrial park.

Factory alarm

A factory alarm is a situation that may affect more than one factory but poses no danger to the surroundings outside the industrial park.

Gasalarm Grenland

Gassalarm Grenland is a situation that can affect several factories and the local environment of the industrial park. The warning signal states «Important notice - get information».

The decision to implement Gassalarm Grenland is taken by the police. Population alerts will be initiated.



Foto: Tom Riis

ation and risk of major accidents

VINYL CHLORIDE (VCM)	NATURAL GAS (LNG)	MOTOR FUEL
Colourless gas with a weak, sweet smell. The gas is heavier than air.	Colourless gas which is stored extremely chilled.	Fluids with characteristic smell.
Extremely flammable and may ignite in the event of emissions. Not acutely toxic, but is classified as carcinogenic in the event of long-term exposure.	Extremely flammable and may ignite in the event of emissions.	Harmful to aquatic organisms and may cause long-term adverse effects in the aquatic environment. Is flammable but not classified as a fire or explosive risk.
Stored in containers under pressure which when directly affected by flames may split, resulting in the formation of a fire ball called a BLEVE.	Fissures in pipes, where liquid gas may run into the trench surrounding the tanks and ignite. Cannot cause damage outside the industrial park.	Emissions to water during unloading of ships. Significant breach in tanks or pipelines.

Population alert in case of acute danger

SMS notification

Porsgrunn Municipality will notify the local populace by SMS. Notification will go to all those who have their address in the municipality.

Important message - get information

The Civil Defence siren systems (typhoons) for alerting the populace in the event of acute danger.



3 signal series with one minute between the series.

Means: Get information. Information about what happens and how to act is given via various media, e.g. radio, TV, government websites, social media, etc. The signal may be used in both peacetime and war. This is the signal that the Civil Defence practises every winter and summer during peacetime.

How to act in the event of an incident:

Check the reports sent out by the police or other emergency management agency.

- Stay indoors unless otherwise instructed.
- Close windows, doors and switch off ventilation.
- If you are outside and cannot get in, observe the wind direction and move away from the area across the wind direction.
- Stay calm – pay special attention to vulnerable groups such as children, the elderly and sick people.
- Search information on available media (radio, TV, internet, social media).

Characteristics of gas leakage

In the event of an ammonia or nitrogen oxide gas leak, this may be noticed due to:

- Piercing smell
- Stinging in the eyes and nose
- Coughing

HERØYA INDUSTRIAL PARK

Herøya Industrial Park is an industrial area with 80 companies with a total of around 2,500 employees and a high focus on safety. In order to be a good neighbour that inspires confidence, the organisations at Herøya Industrial Park must show openness in their work with health, safety and the environment.

Some of the companies have production and storage facilities where hazardous chemicals are handled in such volumes that these enterprises come under the major accident regulations. The enterprises are therefore obliged to coordinate measures and exchange relevant information and documentation necessary to prevent and limit the consequences of major accidents. The purpose of this brochure is to give our neighbours information about the substances and situations that may represent a hazard if an unforeseen incident occurs at the industrial park, including alarm levels in the industrial park, and what precautions the local populace can take.

The major accident regulations' requirements for information to the general public apply to Yara Porsgrunn, INOVYN Norge AS and Air Liquide Skagerak AS. They have prepared safety reports that have been sent to the supervisory authorities.

Herøya Industripark AS is the landowner and agreements that regulate responsibilities, obligations and rights have been drawn up between the tenants and landowner. Common provisions have been prepared, which apply to all tenants.

For more information about Herøya Industrial Park and the businesses there, please visit:

www.heroya-industripark.no

Information about supervision of the activities under the major accident regulations can be obtained from the Directorate for Civil Protection and Emergency Preparedness.

YARA PORSGRUNN

Yara Porsgrunn manufactures mineral fertilisers (NPK) and lime salts as well as a number of other products.

The production process includes the production, transport in pipes, and storage of gases and chemicals, including ammonia and ethane/propane/butane (liquid gas).

Ammonia is stored refrigerated in a large double-walled atmospheric tank and under pressure in spherical tanks. Ethane/propane/ butane is stored in spherical tanks as necessary.

During start-up and shutdown of plants, as well as during production, flaring and noise may occur, as well as yellow smoke from a high nitrogen pipe.

The source of flaring and noise will mostly be the ammonia plant. Burning off gas to equalise pressure is part of the ammonia plant's control system. The flaring and noise present no danger to the environment.

The source of yellow smoke, which is nitrose gas, is primarily the nitric acid plants. During start-up, shutdown or production, nitrose will be emitted via a high nitrogen pipe. This is part of the acid factories' safety system to avoid exposure and presents no danger to the environment.

INOVYN NORGE

INOVYN Norway produces the plastic raw material PVC (polyvinyl chloride). The raw material VCM (vinyl chloride monomer) is produced at Rafnes, where INOVYN Norge AS has chlorine/ VCM factory and administration.

VCM is transported in pipelines and stored in spherical tanks and small day tanks inside the industrial park. The PVC factory uses steam as an energy source. This will at times be emitted from the plant in the form of white smoke and is completely harmless.

AIR LIQUIDE SKAGERAK

The company receives liquid, refrigerated natural gas and/or locally produced biogas, delivered to our storage tanks located in Herøya Industrial Park. The gas is distributed via our gas network to our customers in Grenland.

POSSIBLE INCIDENTS

Despite all the safety measures, accidents that affect people in the factories and surrounding areas may occur.

The table on the previous pages provides a brief description of the substances that represent the most significant hazards and that might result in a major accident.

EMERGENCY PREPAREDNESS AND ACCIDENT ALERTS

Herøya Industrial Park has a coordinated industrial safety team with trained emergency responders who are always on site and ready to manage undesirable incidents and accidents. Herøya Industrial Park's emergency preparedness plans have been drawn up in collaboration with the public emergency preparedness plans (police, municipality, county, etc.) for the management of major undesirable incidents and accidents.

Grenland Brann og Redning IKS is located at the industrial park and will also be in action at the scene of the accident within minutes.

THE FACTORY ALARM IS TESTED EVERY MONDAY

The alarm system at the industrial park is tested every Monday at 13.00.

CONTACT INFORMATION FOR THE INDIVIDUAL ORGANISATIONS

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