



# Safety Information

OPERATOR NAME

VKG Oil AS

ADDRESS

Järveküla tee 14, Kohtla-Järve, Ida-Virumaa

## FURTHER INFORMATION ON SAFETY MEASURES

VKG Safety manager, mobile +372 5685 7456

The company's main field of activity is the thermal processing of oil shale, as well as the production and marketing of shale oil and chemicals. VKG Oil is classified as an A-category major accident hazard establishment. The company complies with the requirements set out in the Chemicals Act and in the integrated environmental permits L.KKL.IV-198338, KKL/300389 and L.KKL.IV-46640. The company implements all possible measures to prevent accidents.

In emergency situations, operations are conducted in accordance with the Emergency Response Plan approved by the Rescue Services Agency. The Rescue Services Agency has prepared an external emergency response plan for the company, which has been drawn up to manage all consequences of an accident occurring outside the installation and is available on the Rescue Services Agency's website (<https://www.rescue.ee/et/ettevottavaeline-haedaolukorralahendamise-plaan>).

Information on the most recent state supervision activity carried out pursuant to the Chemicals Act can be found on the Rescue Services Agency's website (<https://www.rescue.ee/files/Materjalid/25-11-03-soe-andmed-doomino.pdf?f444fefe23>).

Detailed information on the most recent supervision activity, the inspection plan and additional information can be obtained from the competent authorities: the Rescue Services Agency ([rescue@rescue.ee](mailto:rescue@rescue.ee), tel. +372 628 2000) and the Consumer Protection and Technical Regulatory Authority ([info@ttja.ee](mailto:info@ttja.ee), tel. +372 667 2000).

## Main substances that may cause a major accident hazard:

Chemical / Substance	Hazard classification	Main characteristics of hazards
Various fractions of shale oil	Flammable or highly flammable; hazardous to the environment; causes serious health effects	Shale oil is toxic, mutagenic, carcinogenic and reprotoxic, and causes severe skin corrosion and eye damage. It is very toxic to aquatic organisms. Shale oil and its vapours are flammable.

## The main hazard factors in the production process are:

- **Chemical leaks and fire** — the largest quantities of various fractions of shale oils are stored in the reservoirs of the tank farm of the shale oil processing unit. In the event of leaks from reservoir(s) or from road tankers/rail tank cars, the oils and their vapours may ignite due to equipment malfunctions or violations of safety requirements;
- **Explosion (including BLEVE)** — a major accident with the largest hazard zone may occur at the shale oil processing unit in the event of an explosion (BLEVE) of a road tanker truck transporting shale gasoline; however, even in this case, the hazard zone does not extend beyond the company's territory.

In the event of a major accident, there is a risk to the life and health of the company's employees, as well as a risk of property damage. Combustion products have adverse effects on human health and the environment. There is no risk to neighbouring enterprises or nearby residential areas, as the hazard zones of the most severe accidents do not extend beyond the boundaries of the company's territory.

## Measures implemented to limit the consequences:

- **For fire suppression:** the entire site is equipped with a fire-fighting water supply system and hydrants; the units are provided with an internal fire-fighting water system with fire hydrant valves and hoses; a mobile foam trailer ISKADA-4R-2500 (3000); monitor (deluge) units; semi-automatic fire-extinguishing systems in tank farms; fixed fire-extinguishing systems; portable fire extinguishers;
- **For pollution response:** sand, the possibility to deploy front loaders, and concrete bunding in the tank farms.



# Safety Information

## Danger zone

The danger zone is the area in which there is a risk of harm to life and health or damage to property if there is an accident in the installation.



In the event of an explosion (BLEVE) of a road tanker truck transporting shale gasoline, the hazard zones are as follows: the extremely hazardous area (red zone), with a thermal radiation intensity of  $25 \text{ kW/m}^2$ , has a radius of 198 metres; the very hazardous area (orange zone), with a thermal radiation intensity of  $10 \text{ kW/m}^2$ , has a radius of 322 metres; and the hazardous area (yellow zone), with a thermal radiation intensity of  $8 \text{ kW/m}^2$ , has a radius of 360 metres. The outer boundary of the hazardous area simultaneously constitutes the boundary of the hazard zone.

## Public notification of hazards

- In the event of a hazard originating from the company, public information is organised through the Kohtla-Järve City Government by the Group Safety Manager or the VKG OIL Safety Manager.
- Information about the accident is also communicated, in accordance with the procedures prescribed by legislation, to the Rescue Services Agency, the Consumer Protection and Technical Regulatory Authority, the Environmental Board, and the local authority.

## In the case of an accident

- Inform a unit staff member.
- Immediately notify the Emergency Response Centre and evacuate all employees from the hazard zone.
- If outdoors, move away from the hazard area in the opposite direction of the wind.
- If indoors, close the doors and windows, as well as the ventilation outlets to keep out toxic smoke.
- If in a car, close the doors and windows and switch off ventilation.

## Providing assistance to the injured person

- Notify the unit employee about the injured person.
- Move a person suffering from smoke-related health effects to fresh air or to a room with clean air.
- Place the injured person in a lying position and monitor his/her condition until medical assistance arrives.

**VKG Oil does everything in its power to prevent accidents. We also collaborate with the Rescue Services Agency to ensure the necessary responses are taken and the consequences minimised in the case of accidents.**