

CHEMICAL WASTE SITE GETS PYROBAN TREATMENT FOR EXPLOSION PROTECTED FORKLIFTS

DUTCH WASTE MANAGEMENT COMPANY VAN GANSEWINKEL HAS
RECEIVED THREE NEW TOYOTA FORKLIFTS FEATURING PYROBAN
EXPLOSION PROTECTION, TO ENSURE MAXIMUM SAFETY FOR STAFF AT
ITS SITE IN MOERDIJK, THE NETHERLANDS.

"We process several thousand tonnes of chemical waste each year at the Moerdijk site," says Jan Goedhart, Site Manager at the Van Gansewinkel Chemicals site near Dordrecht. "A lot of the waste is flammable, so it is critical that we manage the operation with no compromises to safety."

Chemical liquids, contaminated water, sludge, batteries, aerosols, glue, ink, acid and paint are just some of the waste products collected from customer sites and brought to the facility for processing.

"Customers tell us what is in each drum, IBC or tank and, where necessary, we take samples for testing in our onsite laboratory as it arrives," says Jan Goedhart.

As the deliveries arrive in the "Goods In" which is classified as a Zone 2 hazardous area, explosion protected forklifts are used to unload the pallets and IBCs, many of them containing flammable material.

In June 2015, three explosion protected Toyota 8FBMT18 were supplied for use in the company's Zone 2 hazardous areas. The electric trucks feature Pyroban's system6000E, a safety system that prevents explosions by combining gas detection with various explosion protection methods.

"There are many ways a standard electric forklift can be the source of ignition," explains Eelco Huisinga, Sales Manager, Benelux and Scandinavia, Pyroban BV. "One small spark from

any of the unprotected electrical equipment, heat from motors, brakes and other components and even static build up and friction can create enough energy to cause ignition. It is Pyroban's job to make sure the truck cannot be the source of an ignition."

The forklift conversion, system6000E, includes the use of restricted breathing enclosures, stainless steel cladding for forks and surface temperature cooling to T4 (135°C) to ensure the motors, brakes, electrics and other components remain below the auto-ignition temperature of the flammable materials.

"Van Gansewinkel handles many different solvents and types of flammable material with different flashpoints, temperature classes and characteristics," confirms Eelco Huisinga. "To detect the wide range of potential hazards, the Pyroban gas detection system uses pellistor based technology."

Van Gansewinkel operators are assured the gas detection system is working correctly each day because system6000 auto-calibrates and self-tests at start up. Certified with gas groups IIA and IIB, the new explosion protected forklift trucks have full CE approval in accordance with the ATEX 94/9/EC (now 2014/34/EU) Directive and EN 1755:2000+A2:2013 standard. There is also written consent from Toyota in line with ISO 3691-1:2011.

"Waste is transported to different areas of the site and separated accordingly. For example, toxic substances are kept separate from corrosive and flammable material," Jan Goedhart continues,

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Jan Goedhart, Site Manager, Van Gansewinkel Chemicals

explaining that the handling room and some storage areas are also classified as Zone 2, requiring the use of Pyroban protected forklifts. Eight standard forklifts are also in operation in safe areas.

Service support is provided by Toyota service technicians who are trained on the Pyroban system. "The new trucks have operated perfectly since they arrived," says Jan. "In fact, we had one shutdown situation last year, so we know the systems are working as they should.

Van Gansewinkel is a waste management business with sites across the Netherlands. The 23,000m2 Van Gansewinkel Chemicals site in Moerdijk is focused on hazardous waste processing and employs over 30 staff. It has numerous quality certificates including ISO 9001, ISO 14001 and OHSAS 18001 and staff are highly trained, with many having been at the company for more than 15 years.

"I started working here in 1989, a year after the site opened," he says. "I can remember having Pyroban systems as far back as the 1990's.

"Waste is a valuable source of secondary raw materials. By bulking customer waste into larger batches ready for distribution to a treatment facility, waste can be turned into new raw materials or energy. It gets a second life."



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ABOUT PYROBAN

Pyroban provide explosion protection solutions for materials handling equipment and diesel engines.

For over 40 years we have been at the forefront of the industry developing products to protect your people, your site and equipment when operating in hazardous & added safety areas.

For more information on Pyroban's explosion protection solutions contact us or visit our website.

