

Customer health and safety

As regards bitumen products manufactured by **LOTOS Asphalt**, there is an ongoing debate whether bitumen fumes released at high temperatures are harmful (150-180°C - during production of aggregate and bitumen mixtures at elevated temperatures, and above 250°C - while using bitumen for special waterproofing applications). Although there is no scientific evidence that bitumen fumes are harmful and bitumens are not listed among hazardous substances under current regulations, LOTOS Asphalt includes the most recent recommendations on how to handle bitumen products safely in Information Sheets for substances or admixtures for which a Safety Data Sheet is not required.

Paving grade bitumens, which account for more than 95% of the company's production volume, are subject to conformity assessment, whose outcome represents a warranty for the customer that the product has the appropriate functional properties and meets the construction industry requirements. LOTOS Asphalt's products have declarations of conformity with technical specifications. There are procedures in place at the company which seek to ensure that any amendments to legal requirements affecting the company's operations are identified.

In order to ensure safe use of its products, the company has applied safety-enhancing measures also to transport and distribution. Safety rules and instructional videos are in place for bitumen loading, haulage and unloading. Providers of transport services are also assessed for compliance with LOTOS Asphalt's safety standards.

Life cycle stages at which the impact of LOTOS Asphalt's products on health and safety is improved	Yes	No
Concept of product development	x	-
Research and development	x	-
Certification	x	-
Manufacturing and production	x	-
Marketing and promotion	x	-
Stocks distribution and supply	x	-
Use and service	x	-
Disposal, reuse or recycling	-	x

In 2011, LOTOS Asphalt recorded no incidents of non-compliance with the regulations and voluntary procedures concerning health and safety impacts of the company's products at all stages of product life cycles.

LOTOS Kolej, as a rail carrier, specialises in transport of dangerous goods and provides a comprehensive range of rail transport services within the entire territory of Poland under licence No. WPR/007/2003 to transport goods, granted by the President of the Railway Transport Authority. LOTOS Kolej provides comprehensive service for the companies of the LOTOS Group.

LOTOS Kolej transports dangerous goods in compliance with:

- Rail Transport Act of March 28th 2003,
- Act on Transport of Dangerous Goods by Rail of March 19th 2011,
- Regulations pertaining to transport of dangerous goods, including:
 - Regulations concerning the International Carriage of Dangerous Goods by Rail (RID), appended to the Convention concerning International Carriage by Rail (COTIF);
 - Annex 2 to regulations concerning carriage of dangerous goods to the Agreement on International Goods Transport by Rail (SMGS).

In order to ensure a high service quality, LOTOS Kolej provides its employees with regular training in OHS and transport of dangerous goods. Every new employee, prior to starting any activities related to rail transport, undergoes the mandatory training and authorisation procedure, confirmed by a traction or railroad car instructor. In addition, every employee engaged in rail traffic participates in biannual updates, during which they are briefed on any amendments to applicable rail transport rules.

In 2011, the company transported 6.6 million tonnes of dangerous goods, i.e. 63% of the total transported load.

In the same period, there were 15 accidents and 8 incidents involving LOTOS Kolej's employees and rolling stock (according to the classification provided for in the Regulation of the Minister of Transport, dated April 30th 2007). One of the accidents was caused by a company employee, an engine-driver, who failed to comply with rail safety rules. The company was not responsible for the other accidents and incidents.

All products manufactured by **LOTOS Oil** have Safety Data Sheets (SDS), drafted based on the applicable requirements of the REACH Regulation. On the basis of the relevant SDS, products are classified as either safe or dangerous. The product description in an SDS advises users of potential hazards that the product may generate with respect to human health and the natural environment. In addition, an SDS contains information on dangerous ingredients in the product, exposure controls/personal protection, fire-fighting and environmental release measures, as well as empty container handling. A description of hazards is also provided on the product label in the case of products which are classified as dangerous. The SDS and label also provide a contact telephone number where further information on the product can be obtained.

Life cycle stages at which the impact of LOTOS Oil's products on health and safety is improved	Yes	No
Concept of product development	x	-
Research and development	x	-
Certification	x	-
Manufacturing and production	x	-
Marketing and promotion	x	-
Stocks distribution and supply	x	-
Use and service	x	-
Disposal, reuse or recycling	x	-

The products are supplied to customers along with relevant quality certificates. If a product is classified as dangerous, the relevant SDS is each time enclosed with the documents submitted with the first delivery of the product. Otherwise, the customer is provided with the SDS on demand. Safety Data Sheets and other process documents are updated on a regular basis, as required by the procedures of the Integrated Management System.

In 2011, LOTOS Oil recorded no incidents of non-compliance with applicable regulations, rules and codes concerning health and safety impacts of the company's products.

LOTOS Paliwa takes care of the transport with respect to some 30% of all fuels sold (wholesale and retail combined), including all deliveries to LOTOS' own stations and all deliveries by rail. The remaining portion of the sales volume is collected by customers using their own means of transport.

Road fuel transport is outsourced to entities from outside the LOTOS Group. The safety of this service stage is controlled through contractual and procedure-based requirements for and supervision of deliveries. Rail transport is handled by LOTOS Kolej.

In the case of road transport, health and safety control involves the monitoring of:

- loading at depots,
- safe passage of tankers on controlled routes,
- unloading site safety,
- unloading compliant with the handling procedure and performance indicator,
- procedure in case of spills or failures,
- corrective actions to address any non-compliances.

LOTOS Paliwa regularly monitors fuels sold through the own and partner chain in terms of their quality parameters. Each station has the whole range of fuels inspected once a year.

As regards fuel sale from own stations, the company sets the standards, and supervises adherence to those standards by fuel station managers. The process is governed by separate agreements and effective working procedures, which are improved on a continuous basis. In terms of health and safety standards, the aspects controlled and assessed for compliance include the following stages:

- fuel deliveries,
- infrastructure control,
- procedures in case of accidents or failures,
- safety rules for customer service and fuel sale,
- environmental management in compliance with PN-EN ISO 14001:2005,
- occupational health and safety management in compliance with PN-N-1800.

The Quality Management System in place at LOTOS Paliwa has a certificate of compliance with PN-EN ISO 9001:2009 for wholesale trading in motor fuels and light fuel oils, sale of fuels to business customers, and retail fuel sale management.

In order to ensure safety at LOTOS service stations, the company implements various diagnostic and preventive measures, including:

- assessment of risk and consequences of failures,
- monitoring of OHS and environmental protection standards in place,
- development and implementation of appropriate procedures and rules,
- training of dealers and testing of emergency procedures,
- monitoring of buildings, structures as well as equipment under the administration of LOTOS Paliwa.

The training programme for dealers managing service stations covers such areas as: servicing of fire-fighting equipment, regulations governing the supervision and execution of hot work, preparation of fire safety procedures and explosion protection documents, procedures to be followed during an emergency and safety-related obligations of dealers as employers and managers of service stations.

In 2011, no incidents of non-compliance with the relevant legal regulations where LOTOS Paliwa would be at fault were identified.

In the entire year 2011, as part of the fuel quality monitoring throughout LOTOS Paliwa's logistics chain the following incidents were reported:

- a total of four incidents in fuel transport which involved quality deterioration that might have affected the safety of fuel use,
- a total of 19 incidents in fuel trade which involved quality deterioration that might have affected the safety of fuel use.

A thorough analysis of the incidents confirmed that they did not pose any hazards to customers.

LOTOS Parafiny, as the other companies, has implemented health and safety procedures for all stages of product and service life cycles. At the design stage, available raw materials and their sources of origin are identified, along with the scope of necessary research and testing for the raw materials and the product being designed. The potential environmental impact of the future product is also identified. An appropriate in-process production control system is in place, and occupational safety is ensured at the manufacturing stage. In terms of finished products, research and testing is conducted based on the current testing schedule, along with ad-hoc tests to assess the impact of the product on user health and safety.

Based on the Integrated Management System rules, a set of tools has been implemented to facilitate control and identification of irregularities of the individual processes:

- Testing schedule – determines the scope and frequency of testing and analyses for raw materials, production in progress and finished products;
- Technical and process documents – describing the production process, approved raw materials and requirements to be met by finished products;
- Control system for substance/mixture Safety Data Sheets is in place, ensuring safe use of raw materials during production, and products placed on the market. In addition, the system ensures that SDSs are up-to-date and comply with the applicable regulations (REACH, CLP);
- Environmental monitoring plan;
- Procedure in case of spills or failures;
- Waste management procedure. In addition, the company holds a permit for recovery of paraffin waste;
- Product safety and product quality monitoring procedure at the Paraffin Business Unit: clean status of packaging is inspected prior to transport, to ensure that finished products are protected against contamination and damage.
- Periodic product inspection system is in place to determine the content of carcinogenic substances and heavy metals,
- Good Manufacturing Practice (GMP) System, along with selected Good Hygienic Practices is in place at Zakład Produkcji Parafin Jasło (Jasło Paraffin Production Plant) with respect to the manufacturing of food-grade products.

The products are supplied to customers along with quality certificates, the applicable technical requirements and Product Sheets, or Safety Data Sheets. Technical documentation is updated on a regular basis. The procedures apply to all products of the company.

In June 2011, LOTOS Parafiny completed a two-year research and implementation project entitled "Development of new-generation pattern materials for precision casting and launch of their production". The project allowed the company to develop soft pattern material meeting the requirements of Polish precision foundries employing the lost-wax method. The product is marketed under the name FORMOWAX. Also, the project involved an environmental task aimed to assess whether soft pattern material may be reclaimed. On March 28th 2011, the company submitted a patent application to the Polish Patent Office concerning the method of preparation of pattern material. The application was assigned No. P.394360 by the Patent Office.

As in 2013 the company plans to register two substances with the ECHA, it has already started work to obtain all data necessary to complete the procedure.

Life cycle stages at which the impact of LOTOS Parafiny's products on health and safety is improved	Yes	No
Concept of product development	x	-
Research and development	x	-
Certification	x	-
Manufacturing and production	x	-
Marketing and promotion	-	x
Stocks distribution and supply	x	-
Use and service	x	-
Disposal, reuse or recycling	x	-

All products of LOTOS Parafiny were assessed.

In 2011, LOTOS Parafiny recorded no incidents of non-compliance with applicable regulations, rules and codes concerning health and safety impacts of the company's products.

Related content:

Occupational health and safety