Use of lead compounds that are essential for battery manufacturing should be exempt from Authorisation according to REACH Article 58(2)

Summary

EUROBAT members as well as supply and value-chain partners believe that including a REACH authorisation requirement for the use of lead compounds in the manufacture of lead batteries is not a proportionate regulatory action and would significantly undermine the competitiveness of the European battery industry without delivering any additional benefit in control of risk to human health.

We urge the European Commission to use its discretion to grant an Article 58(2) exemption from the authorization requirement of REACH for use of lead compounds in battery manufacturing. We trust that such a proposal would also find the support of Member States and Members of the European Parliament.

Four lead compounds - lead monoxide, lead tetroxide, pentalead tetraoxide sulphate and tetralead trioxide sulphate have been proposed for inclusion on the 7th priority list. All four are essential and irreplaceable in the manufacture of lead-based batteries with no substitutes available.

During the manufacturing phase of lead-based batteries, all four compounds are transformed into other substances with only trace amounts (<0.1%) present in the finished battery. Lead-based batteries are sealed units that operate in Europe in a closed loop with almost 100% collected and recycled at the end of life.

Lead-based batteries remain essential for the needs of all current and future generations of vehicles, be it cars, trucks or powered-two wheelers. The current European vehicle park of around 275 million vehicles relies on lead-based battery technology and there are no drop-in alternatives.

Lead-based batteries are essential in a number of areas as a source of back-up power, contributing to the effective functioning of communications, IT, production & distribution of renewable energy, nuclear safety, oil and gas networks and for the storage of data in uninterruptible power supply as well as other industrial systems. They are also widely used in agricultural, construction and lawn & garden machinery.

Use of the lead compounds in battery manufacture meets all requirements of REACH Article 58(2) in that:

- Existing "*lead specific*" Community legislation already addresses the use categories to be exempted.
- The existing legislation provides binding and enforceable minimum requirements for the control of risks from the industrial use of lead compounds in battery manufacturing.

Pressure for substitution for the workplace use of lead already exists through the hierarchy of controls in the Chemicals Agents Directive and for use of lead based batteries through provisions aimed at substituting heavy metals in both the Battery Directive and the End-of-Life Vehicles Directive. Thus, specific Community legislation imposing minimum requirements relating to the protection of human health or the environment that ensures proper control of the risks is already in place.

Key messages

The importance of automotive and industrial lead-based batteries to the European economy

A study, prepared for the ongoing review of the current exemption for lead-based batteries within the End-of-Life-Vehicles Directive's wider ban on lead in light-duty vehicles, found that there are at present no alternatives, either technically or economically, to lead-based batteries for the SLI (Starting – Lighting –Ignition) function in vehicles. This means lead-based batteries are essential in virtually all conventional ICE (internal combustion engine) vehicles[1]. Also today's hybrid vehicles (Mild, micro, plug-in-HEV, PHEV) and full electric vehicles do have a demand for lead-based batteries for important functional requirements. Lead-based batteries also serve as SLI batteries in agricultural, lawn & garden tractors.

- Lead-based batteries are also widely used in industrial motive and standby applications due to their proven safety and excellent performance; for example in forklift trucks and electric wheelchairs, and as back-up power for any type of power plants, hospitals or IT applications. They can be found in distribution and storage systems for renewable energy as well as in railway applications – both to supply energy on board of a train and to back up safety systems. They are also used as the main source of power for electrically driven equipment and are essential component of combustion-engine powered equipment with electric starting. In common with automotive batteries, the use of lead compounds is essential in industrial lead-based batteries, cannot be substituted in the manufacturing process and is not present in the final article placed on the market.

- Lead-based batteries play a significant role in achieving EU carbon emission reduction targets, through start-stop functionality in vehicles and regenerative braking in micro hybrid vehicles, and for renewable energy storage and grid stabilisation in on- and off-grid electricity systems.

- The EU automotive and industrial battery sector directly employs around 30,000 workers with an annual turnover of €6.5 billion - 83% of the sector (€5 billion turnover) is lead-based batteries which employs more than 20,000 workers. The main EU countries for lead-based battery manufacture are Czech Republic, France, Germany, Italy, Poland, Spain and UK.

- The EU battery manufacturing industry collectively spent €740 million on research & development and innovation-related investments (e.g. infrastructure) over the last five years, with an additional €105 million for R&D&I related expenses (e.g. material costs) and manufacturing-related investments (e.g. pilot lines) of € 915 million.

- Users of lead-based batteries include the automobile industry which employs 12.9 million people representing 5.3% of the EU employed population. The suppliers of the battery industry include the producers of lead that represents a market close to €3 billion.

- The battery industry (and its ownership) is global in nature. If the lead compounds were included in Annex XIV (and battery manufacturing not exempted under REACH Article 58(2)), only European manufacturers would be impacted. This would undoubtedly result in a change in the competitive position and increase perceived business risk of these manufacturing sites compared to non-EU counterparts as importation of finished batteries into the EU would not be affected by authorisation requirements as articles are not in scope of this title of the REACH Regulation.

[1] For vehicles the application category AC1 applies

Why lead-based battery use should be exempt from REACH Authorisation

The undersigning Associations believe that the use of lead monoxide, lead tetroxide, pentalead tetraoxide sulphate and tetralead trioxide sulphate for production of lead-based batteries should be granted a REACH Article 58 (2) exemption on the following grounds:

- The use is restricted to manufacturing of lead-based batteries as all four compounds are transformed into other substances during the manufacturing process such that only trace amounts (<0.1%) are present in the finished battery.

- Potential exposure to general public to lead and lead compounds during the article use phase is prevented by the fact that lead-based batteries are sealed units.

- At the end-of-life lead-based batteries operate in a closed loop with close to 100% being collected and recycled with approximately 85% of a new battery being made from recycled material.

- Existing "lead-specific" EU workplace legislation already addresses the REACH use categories to be exempted. This existing workplace legislation provides binding and enforceable requirements for the control of risks from industrial use of lead and lead compounds in battery manufacturing. In having a binding occupational exposure and biological limit for lead and lead compounds, supported by additional measures such as mandatory health surveillance of employees, Council Directive 98/24/EC ensures that harmonised EU wide standards operate that constitute minimum requirements relating to the protection of health.

- Employee health surveillance (in the form of routine blood lead measurements) demonstrates the effectiveness of the measures already in place under the existing EU workplace legislation in controlling the risk to human health from the use of the substances arising from their intrinsic properties as specified in Annex XI. Moreover legislative requirements are supported by comprehensive sector voluntary blood lead reduction programmes that go beyond what is required by law.

- Risks of exposure of the general public to lead emissions from battery recycling operations via the environment are also managed through existing lead specific EU legislation that imposes minimum requirements in the form of binding emission limits stipulated in the Industrial Emissions Directive BREF, and binding limits for lead in ambient air, drinking water and food.

- The General Court Vecco ruling (T-360/13) supports the observation that for an industrial use the Chemicals Agents Directive (98/24) includes a provision that drives substitution through its hierarchy of controls that requires replacement of dangerous substances by less hazardous ones (Article 6).

- Provisions already exist in both the EU End-of-Life-Vehicles Directive (Art. 4) and Battery Directives (Art. 5) to encourage substitution of heavy metals (including lead) in batteries where technically feasible

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Undersigning associations

EUROBAT - Association of European Automotive and Industrial Battery Manufacturers

ILA - International Lead Association

Lead REACH Consortium

ACEA – European Automobile Manufacturers Association

ACEM – European Association of Motorcycle Manufacturers

CECE – Committee for European Construction Equipment

CEMA - European Agricultural Machinery Association

CEMEP - European Committee of Manufacturers of Electrical Machines and Power Electronics

CLEPA – European Association of Automotive Suppliers

EGMF - European Garden Machinery Industry Federation

EUnited Municipal Equipment

Eurelectric –
Union of the Electricity Industry

FEM - European Materials Handling Federation

UNIFE – The European Rail Industry

National Partner Associations

A3M – French Ferrous and Non-Ferrous Metals Association

ANCERA – Spanish National Association of Traders of Equipment, Spare Parts, Tires and Accessories for Automotive

ANIE – Italian Electrotechnical and Electronics Association

BBIF – British Battery Industry Federation

FEEI – Association of the Austrian Electrical and Electronics Industries

Sernauto - Spanish Association of Automotive Equipment and Components Manufacturers

SPIAB - Polish Association of Manufacturers and Importers of Batteries

VDA - German Association of the Automotive Industry

ZVEI - German Electrical and Electronic Manufacturers' Association