

# Polycyclic-aromatic hydrocarbons (PAHs) in Tyres

## Guidance Note

01 September 2011

### ABOUT THE NORTHERN IRELAND ENVIRONMENT AGENCY

We are an Executive Agency within the Department of the Environment (DOE) whose aim is the protection, conservation and promotion of the natural environment and built heritage for the benefit of present and future generations.

It is our vision to establish a healthy and well protected environment and heritage in Northern Ireland which contributes to the social and economic well-being of the whole community.

As a Regulator, we seek to protect the environment through our Better Regulation and enforcement policies, through the designation and management of sites and through research and monitoring to reinforce the basis on which we make decisions.

We take the lead in advising on, and in implementing the Government's environmental policy and strategy in Northern Ireland.

### ABOUT REACH

The **REACH (Registration, Evaluation, Authorisation and restriction of Chemicals) Regulation 2006 (as amended)**<sup>1</sup> is an EU regulation that is directly applicable to all European Union member states.

<sup>1</sup>REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC.

The purpose of this Regulation is to ensure a high level of protection of human health and the environment, including the promotion of alternative methods for assessment of hazards of substances, as well as the free circulation of substances on the internal market while enhancing competitiveness and innovation.

The chemicals restricted by the Regulation have been scientifically proven to pose significant risks to human health and the environment. They tend to be persistent, which means they do not break down in the environment easily. They are often toxic to marine and freshwater life and can stay in water for a very long time.

Annex XVII<sup>2</sup> of the Regulation contains a list of chemicals that are subject to restrictions. The restrictions apply to supplying and/or using certain chemicals in concentrations equal to or exceeding the limits stated in the Regulation.

### **Legal requirements**

The law states that if your company has involvement with any *article*, *substance* or *preparation* containing a restricted chemical, and the concentration of the restricted chemical is equal to or greater than the limits specified in the Regulation, you must ensure that you do not *place it on the market* or use it except in accordance with the restrictions listed in Annex XVII (see below).

Article 3 of the Regulation includes the following definitions:

- “substance” means a chemical element and its compounds in the natural state or obtained by any manufacturing process, including any additive necessary to preserve its stability and any impurity deriving from the process used, but excluding any solvent which may be separated without affecting the stability of the substance or changing its composition;
- “preparation” means a mixture or solution composed of two or more substances;
- “article” means an object which during its production is given a special shape, surface or design which determines its function to a greater degree than does its chemical composition;
- “import” means the physical introduction into the customs territory of the Community;
- “placing on the market” means supplying or making available, whether in return for payment or free of charge, to a third party. Import shall be deemed to be placing on the market;

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<sup>2</sup> COMMISSION REGULATION (EC) No 552/2009 of 22 June 2009 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) as regards Annex XVII

## **Powers and Penalties**

The Northern Ireland Environment Agency is one of the enforcing authorities for this Regulation. Under the REACH Enforcement Regulations 2008 No. 2852, the NIEA has the power to request information and to take enforcement action for failure to respond or for responding with a false declaration; and may also take appropriate enforcement action if there is any non-compliance with REACH restrictions.

Enforcement action may mean the issuing of enforcement notices, prohibition notices or prosecution. Prosecution may lead to a fine or imprisonment (or both).

## **Your business**

We have prepared this guidance to help you understand how restrictions under the Regulation may affect your business. It should help you to establish if you are complying with the particular restrictions. The information relates to specific chemicals and the supply and/or use of various articles, substances and preparations that contain them.

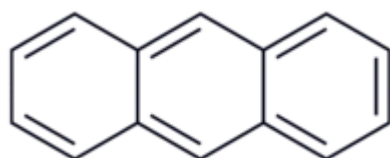
You may wish to seek legal advice or contact a relevant trade association.

## **ABOUT PAHS**

### **What are PAHs?**

PAHs are a large family of organic compounds, made up of two or more carbon rings and hydrogen atoms in a fused ring structure.

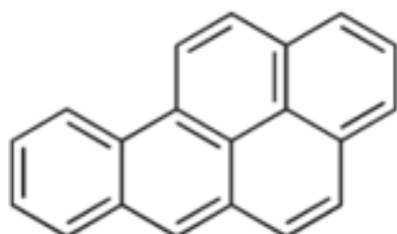
The simplest PAH is



Anthracene

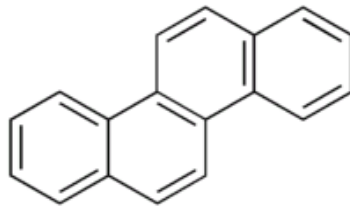
which contains three fused aromatic rings.

Other examples are



Benzo [a] pyrene

and



Chrysen

PAHs may be formed during a range of human activities, including incomplete combustion of carbon-based fuels and other industrial processes. They are contained in oil, coal and tar deposits and may also be formed in the environment by natural processes, such as volcanic eruptions and forest fires.

The 'polycyclic-aromatic hydrocarbon' chemical group is also commonly known as poly aromatic hydrocarbons, or polycyclic hydrocarbons.

### **Where are they found?**

There are more than 100 different PAHs and they are found throughout the environment. PAHs can be released into the air during the incomplete burning of fossil fuels and rubbish.

There are very few intentional uses of most PAHs – they are normally contaminants within materials or by-products of processes. However, some PAHs are used in the manufacture of certain dyes, plastics, pigments, pharmaceuticals and pesticides.

### **Why are PAHs sometimes found in tyres?**

PAHs are not directly added to the tyre or the rubber compounds that make a tyre, but some of the extender oils purchased for tyre production contain traces of PAHs.

Extender oils used in tyre industry are derived from refining in the petrochemical industry. Their function is to facilitate the processing of the rubber compounds from which tyres are made.

Extender oils are also an essential component in the technical performance of the tyre, in particular for its road adherence (or grip) and wear properties, and ensure that tyres wear out more slowly.

### **PAHs and human health**

Humans can be exposed to PAHs by breathing, eating or drinking from a contaminated source. Major sources of general public exposure come from tobacco smoke, breathing ambient air or eating food that has been grown in contaminated soil.

PAHs are toxic to humans by inhalation, ingestion or contact with the skin.

Several PAHs have been classified as carcinogenic by the International Agency for Research on Cancer (IARC) – including the eight PAH species restricted by Annex XVII of the REACH Regulation. EU legislation also classifies PAHs as category 2 carcinogens, mutagens and reproductive toxins.

Possible long-term health effects caused by exposure to PAHs may include cataracts, kidney and liver damage and jaundice. Studies in humans have shown that breathing or skin contact for long periods may cause lung or skin cancer. Long term continuous exposure to PAHs can cause a decrease in lung function, chest pain, dermatitis and warts.

It is not clear whether PAHs cause short-term health effects. Other chemicals commonly found with PAHs may be the cause of short-term symptoms such as eye irritation, nausea, vomiting, diarrhoea and confusion.

### **PAHs in the environment**

PAHs are persistent organic pollutants and can accumulate in plants and animals. They break down slowly and are insoluble in water. The highest concentrations are found in soils and sediments. Some PAHs are known to cause cancer, birth defects and mutations in animals.

They can enter river sediments from water running off the roads. PAHs can remain in the environment for months or years.

PAHs can travel long distances through the atmosphere and this raises the possibility of adverse health and wildlife effects occurring in remote places. Because of this, PAHs are pollutants of global concern.

In the UK, under the Water Framework Directive (WFD)<sup>3</sup> PAHs are considered to be Priority Hazardous Substances.<sup>4</sup>

### **Tyres**

It is estimated that the average passenger tyre will lose 1-2 kg of its mass throughout its lifetime due to friction with the road surface.

As a result of this, fine particles containing PAHs are released into the environment and through wash off from roads.

## **PAH RESTRICTIONS**

The PAH restriction, No 50 under Annex XVII of the REACH Regulations is applicable after 1 January 2010 to:

- Extender oils placed on the market or used for the production of tyres;
- Manufacture of tyres and treads for retreading; and
- Tyres/treads for re-treading placed on the market.

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<sup>3</sup> DIRECTIVE 2000/60/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 23 October 2000 establishing a framework for Community action in the field of water policy.

<sup>4</sup> DIRECTIVE 2008/105/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on environmental quality standards in the field of water policy, amending and subsequently repealing Council Directives 82/176/EEC, 83/513/EEC, 84/156/EEC, 84/491/EEC, 86/280/EEC and amending Directive 2000/60/EC of the European Parliament and of the Council.

If the extender oil or tyre exceeds the PAH limits detailed in the restriction, your company should not supply or use either, except in accordance with the restrictions.

The full text of the restrictions on PAHs is supplied below on page 7 of this guidance note (extracted from Annex XVII of the REACH Regulation 2006 [as amended]).

## POLYCYCLIC AROMATIC HYDROCARBONS (PAHS) RESTRICTIONS

**Table 1: The relevant restriction in Annex XVII of EC 1907/2006 the REACH Regulation (as amended by EC 552/2009) is stated below:**

Designation of the substance, of the groups of substances or of the preparation	Conditions of restriction
<p>50. Polycyclic-aromatic hydrocarbons (PAHs)</p> <p>(a) Benzo[a]pyrene (BaP) CAS No 50-32-8</p> <p>(b) Benzo[e]pyrene (BeP) CAS No 192-97-2</p> <p>(c) Benzo[a]anthracene (BaA) CAS No 56-55-3</p> <p>(d) Chrysen (CHR) CAS No 218-01-9</p> <p>(e) Benzo[b]fluoranthene (BbFA) CAS No 205-99-2</p> <p>(f) Benzo[j]fluoranthene (BjFA) CAS No 205-82-3</p> <p>(g) Benzo[k]fluoranthene (BkFA) CAS No 207-08-9</p> <p>(h) Dibenzo[a,h]anthracene (DBA<sub>h</sub>A) CAS No 53-70-3</p>	<p>1. From 1 January 2010, extender oils shall not be placed on the market, or used for the production of tyres or parts of tyres if they contain:</p> <ul style="list-style-type: none"> <li>- more than 1 mg/kg (0,0001 % by weight) BaP, or,</li> <li>- more than 10 mg/kg (0,001 % by weight) of the sum of all listed PAHs.</li> </ul> <p>These limits shall be regarded as kept, if the polycyclic aromatics (PCA) extract is less than 3 % by weight as measured by the Institute of Petroleum standard IP346: 1998 (Determination of PCA in unused lubricating base oils and asphaltene free petroleum fractions — Dimethyl sulphoxide extraction refractive index method), provided that compliance with the limit values of BaP and of the listed PAHs, as well as the correlation of the measured values with the PCA extract, is controlled by the manufacturer or importer every six months or after each major operational change, whichever is earlier.</p> <p>2. Furthermore, tyres and treads for retreading manufactured after 1 January 2010 shall not be placed on the market if they contain extender oils exceeding the limits indicated in paragraph 1.</p> <p>These limits shall be regarded as kept, if the vulcanised rubber compounds do not exceed the limit of 0,35 % Bay protons as measured and calculated by ISO 21461 (Rubber vulcanised — Determination of aromaticity of oil in vulcanised rubber compounds).</p> <p>3. By way of derogation, paragraph 2 shall not apply to retreaded tyres if their tread does not contain extender oils exceeding the limits referred to in paragraph 1.</p> <p>4. For the purpose of this entry "tyres" shall mean tyres for vehicles covered by:</p> <ul style="list-style-type: none"> <li>- Directive 2007/46/EC of the European Parliament and of the Council of 5 September 2007 establishing a framework for the approval of motor vehicles and their trailers (****),</li> <li>- Directive 2003/37/EC of the European Parliament and of the Council of 26 May 2003 on type-approval of agricultural or forestry tractors, their trailers and interchangeable towed machinery, together with their systems, components and separate technical units (*****), and</li> <li>- Directive 2002/24/EC of the European Parliament and of the Council of 18 March 2002 relating to the type-approval of two or three-wheel motor vehicles and repealing Council Directive 92/61/EEC (*****).</li> </ul> <p>(****) OJ L 263, 9.10.2007, p. 1.      (*****) OJ L 171, 9.7.2003, p. 1.            (*****) OJ L 124, 9.5.2002, p. 1.</p>

## PRESENCE OF PAHS

### Quick Check in:

#### Extender Oils

The label on the packaging of the substance/preparation and also the Safety Data Sheet (SDS) from your supplier should have information.

Please note that the labelling and SDS may not say 'PAH', it may name the exact chemical from the PAH-family, give a Chemical Abstract Service (CAS) or European Inventory of Existing Commercial Chemical Substances (EINECS) number or state a synonym.

### Quick Check in:

#### Tyres and Retreads

Tyres should have an identification number (DOT<sup>5</sup> code) or serial number moulded into the side wall - this number will be up to 11 characters long and is likely to be a combination of letters and digits.

The date of production code is the last part of the DOT code and is 2 digits for the week of the year plus 2 digits for the year (or 2 digits for the month of the year plus 1 digit for the year for tyres made prior to 2000.)

In the example below, **0110** has been highlighted – these digits indicate that tyre was made in the first week of 2010.

If the number indicates that the article was **manufactured after 01 January 2010**, PAH content and compliance with the REACH restriction should be determined by enquiring with the article's manufacturer.

If the exact batch cannot be established, or the manufacturer cannot supply the composition of the article, laboratory analysis will be needed.

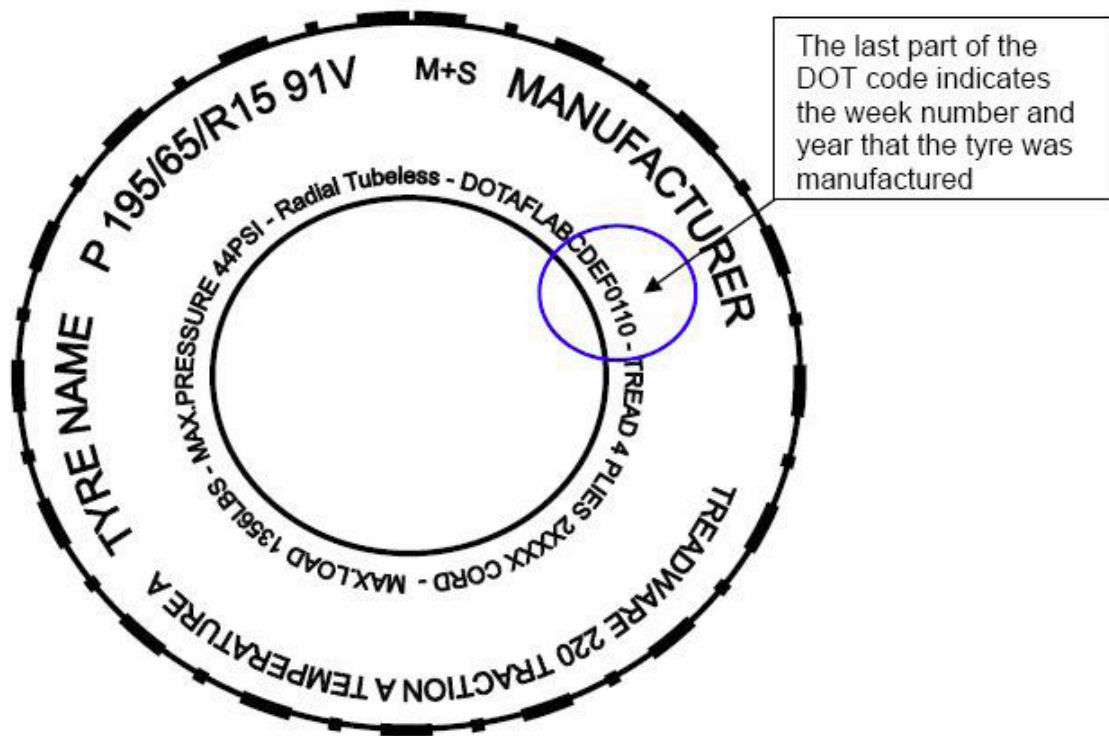
Analysis must determine the concentration by weight of Benzo[a]pyrene (BaP), as well as the sum concentration by weight of the eight PAHs restricted under REACH.

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<sup>5</sup> United States Department of Transportation (USDOT or DOT)



## Diagram of a Tyre



Tyres and retreads for tyres that are known to have been manufactured before 01 January 2010 are **not** affected by the PAH restriction under REACH.

## WHAT YOU NEED TO DO

### Assess Compliance

If your business is involved in the supply of extender oils or tyres to the UK or European market you must take the appropriate steps to ensure these products comply with the REACH restriction. Businesses involved in this supply chain include:

- Manufacturers
- Importers
- Distributors
- Retailers

All of these businesses may be committing an offence if extender oil or tyres are supplied that contain PAHs above the limits stated in the restriction.

**It is your responsibility to ensure that the products your business supplies are compliant.**

There are a number of steps that you can take to help you determine if the products you supply are compliant with the restriction. These steps are

summarised in table 2 below. Further considerations for each of these steps are outlined on the following pages.

The restriction specifies the analysis methods that must be used to determine the compliance of extender oils and tyres.

**Table 2: Summary of steps to assess and demonstrate compliance**

<b>STEP</b>	<b>Action to take</b>	<b>By who</b>
1a	Analysis of the extender oil to determine PAH concentration.	Manufacturers & importers of extender oils or tyres must conduct analysis of the extender oil every six months or after each major operational change.
1b	Analysis of tyre to determine PAH concentration.	Tyre manufacturer, importer, distributor.
2	Liaise with the manufacturer/supplier.	Importer, distributor, retailer.
3	Written declaration stating the product is compliant with the REACH restriction concerning PAHs.	Manufacturer of the product.
4	Keep records as evidence of compliance.	Every company in the supply chain.

### **STEP 1a:**

#### **Analysis of the extender oil to determine PAH concentration**

For extender oils the restriction states:

- that IP346 must be used to determine compliance of the extender oil;
- that analysis by IP346 should be carried out by the manufacturer or importer every 6 months as a minimum. Analysis by IP346 every 6 months (or earlier if there is a major operational change) is a requirement of the restriction – failure to carry this out is a breach of the restriction; and
- that extender oils (and tyres subsequently made with the extender oil) are compliant if the polycyclic aromatics (PCA) extract is less than 3 % by weight as measured by IP346.

The legal interpretation of the restriction is that the manufacturer or importer of extender oils **or** tyres should carry out analysis to IP346, provided the analysis is carried out in a reliable manner, and the results are shared up and down the supply chain. Companies who conduct this analysis should provide this to their customers as evidence that their products are compliant. All companies within the supply chain should obtain evidence of analysis of the extender oil every 6 months and retain this as evidence of compliance.

If the analysis cannot be shared then both extender oil and tyre manufacturers should undertake their own analysis.

If you are relying on another company within the supply chain to carry out this analysis, you may wish to carry out your own independent analysis and we would encourage this to give you additional confidence in the compliance of the oils.

**NOTE:** There have been concerns and new developments in relation to PAH analysis using IP346 and you are advised to contact us about the methodology.

If your tyre manufacturer is conducting the analysis, ask for a copy of the analysis report and confirmation of:

- what products were analysed;
- the date this occurred;
- the method used;
- the name of the laboratory that ran the tests;
- what tyres are made using the extender oil; and
- an interpretation of the results in relation to the restriction.

Table 3 lists laboratories that may be able to conduct analysis of extender oils to the methods stated in the restriction.

Important note:

- We do not endorse any particular laboratory.
- The list is not exhaustive; there may be other suitable laboratories.
- You should check that any laboratory that carries out analysis on your behalf has a current accreditation for the method. If they are not accredited you should be satisfied that they are a reputable laboratory capable of providing reliable analysis to the required method.

**Table 3: Extender oil analysis in the UK – IP436 method**

<b>Laboratory</b>
Intertek Website: <a href="http://www.intertek.co.uk">www.intertek.co.uk</a>
SGS United Kingdom Ltd Rossmore Business Park Ellesmere Port CH65 3EN Tel: +44 151 350 6694 Email: <a href="mailto:paul.hough@sgs.com">paul.hough@sgs.com</a> Website: <a href="http://www.uk.sgs.com">www.uk.sgs.com</a>
Smithers Rapra Technology Ltd Shawbury Shrewsbury Shropshire SY4 4NR Tel: +44 (0)1939 250383 Email: <a href="mailto:info@rapra.net">info@rapra.net</a>  Smithers Rapra 18 Belasis Court Billingham TS23 4AZ

### **STEP 1b:**

#### **Analysis of tyres to determine PAH concentration**

The restriction states that tyres must be analysed using ISO 21461<sup>6</sup> to determine compliance.

We are aware that analysis of tyres using ISO 21461 can be a financial burden. Selecting the appropriate number of tyres for analysis is your decision. The number and frequency that you decide upon should be based on the level of risk that you believe particular products have associated with them.

Gathering background information from the tyre manufacturer or your supplier can help you to assess this risk.

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<sup>6</sup> ETRMA Press Release – Our View (March 2011)

For example you may want to contact the tyre manufacturer or your supplier and ask for the following information:

- What extender oil is used in the tyres you are supplied? Ask for a copy of the safety data sheet for the oil - does this list the PAH content?
- Has the extender oil supplier or tyre manufacturer analysed the extender oil? If so, can they provide copies of the analysis?
- Has the tyre manufacturer or supplier analysed any of the tyres? If so, can they provide copies of the analysis? Does this state what specific tyres are included (tyre brand, size, date of manufacture etc)?
- What procedures do they have in place for ensuring compliant tyres are manufactured?
- Does the tyre manufacturing facility use extender oils that are not compliant? Many manufacturers produce tyres that are not intended for sale in Europe and may be legitimately using high PAH extender oils. If this is the case, how do they ensure tyres destined for Europe are compliant?

After finding out this information you may be more able to make a judgement on the need to carry out any analysis of tyres yourself. However, we would advise you may still wish to commission some independent analysis of tyres yourself, even if all the information from your supplier points towards compliance. This will reinforce your confidence in the compliance of the products.

**NOTE:** ISO 21461 is still recommended and there are no concerns about the use of this method to assess the compliance of tyres and retreads.

### **Accredited laboratories**

We are aware that sourcing analysis to the required method, at a laboratory accredited for IP346 or ISO21461 is not easy and can be costly. We recommend that wherever possible, analysis is carried out by a laboratory that is accredited for the method. However, analysis to the specified methods at an unaccredited, but reliable and reputable laboratory is preferable analysis than using an inappropriate alternative analysis method.

Table 4 lists laboratories that may be able to conduct analysis of tyres to the methods stated in the restriction.

Important note:

- We do not endorse any particular laboratory.
- The list is not exhaustive; there may be other suitable laboratories.
- You should check that any laboratory that carries out analysis on your behalf has a current accreditation for the method. If they are not accredited you should be satisfied that they are a reputable laboratory capable of providing reliable analysis to the required method.

**Table 4: Rubber analysis- Tyres – ISO21461 method**

<b>Country</b>	<b>Laboratory</b>
France Website: www.lrccp.com	LRCCP 60 Rue Auber 94408 Vitry sur Seine cdx Tel: +33 1 49 60 57 57 Fax: +33 1 49 60 70 66
Germany Website: www.henkel.com	Henkel KGaA Frau Heimsath Zentrale Analytik, Z43 Henkelstr.67 40191 Dusseldorf
Germany Website: www.dikautschuk.de Email: info@dikautschuk.de	German Institute of Rubber Technology (DIK) Eupener Straße 33 D-30519 Hannover Tel: +49 511 84201-44
Italy	Prof. Luigi Maggi LabAnalysis s.r.l Via Aldo Moro, 7 27041 Casanova Lonati (PV)
UK Email: general@tarrc.co.uk	TARRC Tun Abdul Razak Research Centre Brickendonbury Hertford SG13 8NL Tel: +44 (0)1992 584966 Fax: +44 (0)1992 554837
UK Email: info@rubberconsultants.com	Rubber Consultants (consultancy unit of TARRC) Brickendonbury Hertford, SG13 8NL
UK Email: info@rapra.net	Smithers Rapra Technology Ltd Shawbury Shrewsbury Shropshire SY4 4NR Tel: +44 (0)1939 250383 Smithers Rapra 18 Belasis Court Billingham TS23 4AZ

**Completed Analysis**

You may have already commissioned analysis of extender oils or tyres to an analysis method that is not stated in the restriction. This information is still valuable and may be indicative of compliance and should be retained.

## **STEP 2:**

### **Liaise with the manufacturer/ supplier**

The restriction requires that the extender oil is assessed for compliance every six months or after each major operational change.

If you are not a manufacturer, you should establish regular, on-going contact with the manufacturer/supplier of the products that your business deals with.

You should establish:

- what steps they have taken to ensure the products are compliant;
- what evidence they can provide that shows the products are compliant;
- an agreement that you will be supplied regular copies of analysis reports;
- an agreement that you will be kept up-to-date of any changes to the production process or product ingredients and that you will be informed immediately of any issues that may impact upon compliance;
- an agreement that you will not be supplied products unless they are compliant with the restriction; and
- what future plans they have to maintain compliance.

If possible, you should visit the factory where the product is made to make sure you are satisfied that the products are compliant.

## **STEP 3:**

### **Written declaration stating the product is compliant with the REACH restriction concerning PAHs.**

The research shows that many tyre manufacturers have issued written statements to their customers stating that their products are 'REACH compliant'. Many of these refer only to compliance with the general requirements of REACH (for example, whether the product needs to be registered under REACH or if it contains any substances of very high concern [SVHCs]). This is **not** sufficient to demonstrate compliance with the PAH restriction.

For further clarification on the difference between REACH registration and REACH restrictions, please contact us or visit the Health & Safety Executive (HSE) website at: [www.hse.gov.uk/reach](http://www.hse.gov.uk/reach).

Any written declarations should specifically state that the product complies with the PAH limits stated in the restriction. It should also state what products/brands/tyre sizes are covered by the declaration and the date the declaration is effective from.

You should request that declarations are routinely provided on a regular basis and also after any major changes to the production process.

**Important note:** If a supplier gives you a written declaration that their products are compliant with the PAH limits stated in the REACH restriction, **this alone will not be sufficient** for you to be confident of compliance. Other evidence of compliance should be sought in addition to the declaration.

#### **STEP 4:**

#### **Keep records as evidence of compliance**

It is vital that you keep accurate, on-going and up-to-date records of any steps you have taken to establish the compliance of the products you deal with. Make sure that you keep any correspondence, test results, declarations or any other documentation that can demonstrate how you have assessed product compliance.

Accurate records will help you to be confident that the products you handle are compliant with the restrictions; in addition, they will allow you to respond quickly to any enquiries from your customers.

Keeping accurate records will help you to respond if we contact you for information about the products your company deals with. This information will demonstrate the steps you have taken to ensure your business is compliant, and allow us to assess those steps without unnecessary delay.

### **HAVING CONFIDENCE IN YOUR COMPLIANCE**

Unless you are the manufacturer of a product, it is not possible to be completely certain at all times that a product complies with the restriction. By taking the steps outlined above, on a regular and consistent basis, you will be more confident that a product is compliant. It will also allow you to demonstrate that you have taken all reasonable steps to comply.

### **DEALING WITH NON-COMPLIANT PRODUCTS**

If you identify extender oil, tyres or treads that have more than the allowed concentrations of PAHs (either BaP concentration, sum total of PAHs or both) you should remove them from sale immediately. You should also contact all customers that you have supplied, and inform them the products are not suitable for sale.

#### **Waste management**

Extender oils, tyres or treads that have more than the allowed concentration of PAHs may be legally classed as waste. You should contact NIEA to discuss the circumstances surrounding your situation so that you can be advised on the next steps.

If your products are deemed to be waste, you will need to comply with all relevant waste legislation. Under duty of care, you have a legal obligation as a



holder of waste to arrange for it to be disposed of properly. You must make sure that anybody who offers to:

- transport waste – holds a waste carriers registration;
- move hazardous waste – uses a consignment note;
- dispose of waste – holds an appropriate environmental permit; and
- export waste – complies with the transfrontier shipment (TFS) regulations.

**Please note: Waste chemicals should always be handled according to the advice on the Safety Data Sheet.**

## Contacting Us

You can visit our NIEA website at:

- <http://www.doeni.gov.uk/niea/index.htm>

For more information about waste management you can:

- Visit our website:  
[http://www.doeni.gov.uk/niea/waste-home/regulation/regulations\\_hw.htm](http://www.doeni.gov.uk/niea/waste-home/regulation/regulations_hw.htm)

- Telephone (028) 9056 9710.

If you have any questions about this guidance or if you find that your company has bought or imported tyres that contain PAHs please contact the NIEA as follows:

- E-mail to: [carol.majury@doeni.gov.uk](mailto:carol.majury@doeni.gov.uk)
- Telephone: Carol Majury on (028) 9056 9798.

## FURTHER INFORMATION

The REACH Regulations are available online from The Office of Public Sector Information at: <http://www.opsi.gov.uk/>

Additional information on compliance with environmental legislation is available from the NETREGS web site at: [www.netregs.gov.uk](http://www.netregs.gov.uk)

The Regulations are also available from The Stationery Office (TSO) either online at [www.tso.co.uk](http://www.tso.co.uk) or by post from:

TSO Ireland  
16 Arthur Street  
Belfast  
BT1 4GD

Phone: 028 9023 8451  
e-mail enquiries: [enquiries@tsoireland.com](mailto:enquiries@tsoireland.com)

Further guidance on the EC REACH Regulation is available from the Health and Safety Executive at: [www.hse.gov.uk](http://www.hse.gov.uk) and also the Environment Agency for England and Wales web site at: [www.environment-agency.gov.uk](http://www.environment-agency.gov.uk)

**Please Note:**

Regulations may be amended. This information is correct at the time of going to print.