



**A.B INDUSTRIAL RECYCLING TECHNOLOGIES**

# A. R. I. - Optimal Flow Solutions

Kfar Haruv, Israel

R.E.A.C.H. Report

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## **A.R.I. - REACH**

### **Advice concerning REACH**

We were asked by A.R.I. to examine whether Regulation (EC) 1907/2006 of the European Parliament and of the Council (REACH) is applicable to their products and / packaging.

#### **Summary:**

1. The products and their packaging are 'articles' under REACH.
2. The articles do not intentionally release substances under normal or reasonably foreseeable conditions of use.
3. The substances in the articles are not required to be registered under REACH.
4. The presence of Substances of Very High Concern should be checked as regards sealing of Valves. To products containing such SVHC notification and information requirements apply.
5. Substance restrictions can be found in Annex XVII to REACH.



This advice is addressed exclusively to A.R.I. Kfar Haruv, Israel and is not for use of other parties. It is based on technical information given to us by A.R.I., the legislation and the information available at the time of preparation from CIRS and [European Chemicals Agency \(ECHA\)](#).

**Opinion:**

REACH is concerned with the regulation of substances, i.e. chemical elements and their compounds.

Companies will only be permitted to manufacture, import or use substances - alone or in preparations- within the EU if they have registered them with the European Chemicals Agency (ECHA) in Helsinki. Additional controls will be required on certain dangerous substances.

Registration under REACH is required for substances on their own, for substances in preparation and for substances in articles (Article 5 REACH).



## **1. Introduction A.R.I.**

The company manufactures and markets a complete line of *air valves, check valves, and unmeasured flow reducers (UFR), Back Flow Preventers, control valves* as well as providing software system analyses for surge and air valve sizing and placement. ARI markets its product and analysis solutions in the following markets:

- Water supply and waste water disposal systems (urban and rural).
- Industrial applications (desalination plants, mining and gas industries, hot water systems).
- Agriculture and landscape.

A.R.I. works with subsidiary and/or joint venture companies in Brazil, China, France, Germany, Mexico, Russia, South Africa and USA.

## **2. Classification of the products as `articles`.**

Before entering into the stage of examining substances, it should be determined whether the products are `articles` or `preparations` under REACH. If the products are articles that do not intentionally release substances under reasonable or reasonably foreseeable conditions, the main requirement of REACH – the registration of the substances– is not applicable to the product. All valve components separately and together are articles under REACH.



According to Article 3 REACH, `article` means:

*“an object which during production is given a special shape, surface or design which determines its function to a greater degree than does its chemical composition”.*

The `Guidance on requirements for substances in articles` (in the following: `Guidance` published by the European Chemical Agency (ECHA) in may 2008 explains:

*“The elements shape, surface and design represent the physical appearance of an article and can be understood as other than chemical characteristics. Shape means the three-dimensional form of an object like depth, width and height. Surface means the outermost layer of an object. Design means the arrangement of the `elements of the design` in such a way as to best accomplish a particular purpose.”*

The shape, design and physical properties of A.R.I. products are, in fact more important for the fulfillment of their function than their chemical composition. The function could be fulfilled also if products had another chemical composition.



## **2. Production**

The company manufactures and markets a complete line of air valves, check valves, and unmeasured flow reducers (UFR) as well as providing software system analyses for surge and air valve sizing and placement.

ARI markets its product and analyses solutions in the following markets:

- Water supply and waste water disposal systems (urban and rural).
- Industrial applications (desalination plants, mining and gas industries, hot water systems).
- Agriculture and landscape.

ARI is firmly committed to quality and to protecting the environment and is ISO 9001 and ISO14001 certified.

The materials used include:

- Ductile Iron.
- Duplex Stainless Steele.
- Stainless Steel 316 - Alloy Composition.
- Steel.
- Polyamides polymers.
- NBR and EPDM (Rubber).
- Paint, coatings.

In the production process of the floats, use is made of chemical thinners which act as an adhesive. When adhesion is completed the thinner evaporates. Paints and/or coatings are applied to the finished products.



All products are approved for use with drinking water.

A.R.I. system solutions protect the pipeline from destructive forces such as surge, pressure transients and entrapped air. These are the leading causes of pipeline bursts, fractures and cracks which cause irreparable environmental damages such as water losses from leaks, pathogen and contaminant intrusion through pipe cracks and energy losses from inefficient flows. A.R.I. is committed to solving these problems by providing a system analyses that helps reduce surge related phenomena and select the most efficient A.R.I. air valves and size and locate them on the liquid transmission system.

Another innovative product which lowers water losses in the consumer market is the Unmeasured Flow Reducer (UFR) and the Back Flow Preventors and control valves. The UFR, installed near the water meter, will detect household leaks and change the flow regime to enable the measurement of previously unmeasured water flow into the home.

### **3. Packaging**

All products are transported to the EU in cardboard boxes. The boxes hold Valves and accessories which are inert and do not release any substances.



#### 4. Registration

Under certain conditions the substances present in articles need to be registered.

Article 7 REACH Provides:

“1. Any producer or importer of articles shall submit a registration to the Agency for any substance contained in those articles, if both the following conditions are met:

- (a) the substance is present in those articles in quantities totaling over one tonne per producer or importer per year;
- (b) the substance is intended to be released under normal or reasonably foreseeable conditions of use.”

However in the case of A.R.I. Valves, substances are not intended for release in any circumstances and therefore do not require registration.

#### Conclusions:

1. The products and their packaging are 'articles' under REACH.
2. In ECHA's opinion the release of substances under normal or reasonably foreseeable conditions is not relevant as long as it is not intended. In our case there is no release of any substances.
3. There is no release of substances from the packaging.
4. The substances in A.R.I.'s products and their packaging **do not have to be registered under REACH.**





5. **References:**

- 5.1 Akzo-Nobel REACH Brochure;
- 5.2 A.R.I. Website;
- 5.3 Chemical Inspection & Regulation Service ([CIRS](#))
- 5.4 ECHA-European Chemicals Agency-Guidance Notes;
- 5.4 Private Communication (Information from A.R.I. Engineer.
- 5.5 [www.reach-compliance.eu](http://www.reach-compliance.eu)
- 5.6 Tambour MSDS for Thinner 1 for DUR Paint;
- 5.7 Univercol-Nirlat-MSDS for Epoxy Phenolic FBE-4 Lead-Free.