

SVHCs in Articles and Packaging

On 28th October 2008 the European Chemicals Agency (ECHA) based in Finland, issued details around legal obligations that companies may have resulting from the inclusion of substances on the so called "Candidate List". These obligations are not only linked to the listed substances on their own or in preparations but also to their presence in articles.

Suppliers of articles which contain substances on the Candidate List in a concentration of >0.1% of the weight of the total article must inform their customers of the name of the substance and provide appropriate safe use data.

In general, packaging is regarded as a separate article to the item it contains. For example, the sealed bag a semiconductor is supplied in and, if included, a humidity indicator card should be considered separately. Likewise, anything to protect the semiconductor, such as a foam insert, is a separate article. The 0.1% threshold would apply to each individually.

Taking into account the above and the example used; an article's packaging would not need to be mentioned in relation to the article itself but would need to be mentioned separately, via the safety data.

Please refer to the following data sheet for details of any SVHC contained in the packaging of this product.

Fairchild Semiconductor's Statement Regarding the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH)

This document is Fairchild Semiconductor's statement regarding Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorization, and Restriction of Chemicals (REACH). The content of this document is based upon information collected from Fairchild Semiconductor supply chain, manufacturing facilities and affiliates worldwide

In accordance with Article 33 of REACH Fairchild is obligated to inform recipients of articles that contain any of the chemicals on the Substance of Very High Concern (SVHC) candidate list above a 0.1% concentration (by weight per article).

We hereby declare that products manufactured and marketed by Fairchild Semiconductor do not contain substances on the REACH SVHC candidate list, in the table below in concentrations greater than 0.1% by weight per article. However, humidity indicator cards placed in dry pack bags of moisture sensitive products may contain 5% Cobalt dichloride. Also, tube-style rails that product is stored and shipped in may contain phthalates in the PVC tube.

Substance Name	CAS Number
Anthracene	120-12-7
4,4'- Diaminodiphenylmethane	101-77-9
Dibutyl phthalate	84-74-2
Cyclododecane	294-62-2
Cobalt dichloride	7646-79-9
Diarsenic pentaoxide	1303-28-2
Diarsenic trioxide	1327-53-3
Sodium dichromate, dihydrate	7789-12-0
5-tert-butyl-2,4,6-trinitro-m-xylene (musk xylene)	81-15-2
Bis (2-ethyl(hexyl)phthalate) (DEHP)	117-81-7
Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins)	85535-84-8
Bis(tributyltin)oxide	56-35-9
Lead hydrogen arsenate	7784-40-9
Triethyl arsenate	15606-95-8
Benzyl butyl phthalate	85-68-7

Fairchild will continue to monitor the developments of the REACH legislation and is committed to meeting our responsibilities as an environmentally-responsible company.

Please contact me if you have any questions or need additional information.

David Lancaster
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Date: March 6, 2009

REACH Declaration

Providing for limitations below, Fairchild Semiconductor certifies that the information provided in this document is correct as of the date indicated on this page.

Fairchild has implemented systems to ensure our products are compliant to environmental regulations and laws worldwide. However, not all materials in Fairchild's products may have been independently verified regarding substance content. In the event of any issues arising from information in this document, the warranty section of Fairchild's standard terms and conditions of sale shall apply, unless alternate contracts have been agreed upon in writing by both parties.

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1**1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING****Product information**

Commercial Product Name : Reversible Humidity Indicator III

Company : Süd-Chemie AG
Business Unit Performance Packaging
Ostenriederstrasse 15
85368 Moosburg

Telephone : +49876182765
Telefax : +49876182755

Contact Point : BPE +49 8761/82-765

Emergency telephone number : +49 (0)613284463 only for working place emergency
(contact only in german or english)

2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature : cobalt dichloride on cardboard

Usage : Indicator for air humidity

Components	EINECS	Symbol(s)	R-phrases(s)	Concentration
COBALT DICHLORIDE	231-589-4	T, N	R49, R22, R42/43, R50/53	< 0,25 %

3. HAZARDS IDENTIFICATION

none under normal use

4. FIRST AID MEASURES

General advice : none

Eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

Skin contact : Wash off with soap and plenty of water.

Inhalation : n.a.

Ingestion : Rinse mouth.

Notes to physician

Treatment : none

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media : Use extinguishing measures appropriate to the environment.

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Extinguishing media which
must not be used for safety
reasons : none

6. ACCIDENTAL RELEASE MEASURES

Environmental precautions : Do not flush into surface water or sanitary sewer system.
Methods for cleaning up : Take up contaminated material by mechanical means, load into clean containers, and dispose of in accordance with legal regulations.

7. HANDLING AND STORAGE**Handling**

Safe handling advice : No special precautions required.

Storage

Requirements for storage : Keep in a dry place.
areas and containers

8. EXPOSURE CONTROLS / PERSONAL PROTECTION**Components with workplace control parameters**

Components	CAS-No.	Value	Basis / Remarks
COBALT	7440-48-4	0,1 mg/m ³	Germany TRGS 900 Limit Values TRK Data Oct, 1998

Personal protective equipment

Respiratory protection : n.a.
Hand protection : Chemical-resistant protective gloves according to EN 374, EN 388, EN 420
Eye protection : n.a.
Skin and body protection : Not required
Hygiene measures : Wash off with warm water and soap.
Protective measures : Prophylactic use of protective ointment (barrier cream) is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES**Appearance**

Form : Plates
Colour : pink to blue
Odour : none

Other data

Water solubility : partly soluble, max. 600 ppm CoCl₂ can be leached out.
pH : 4,5 - 6



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10. STABILITY AND REACTIVITY

Hazardous reactions
(Conditions to avoid) : hygroscopic

Hazardous reactions
(Materials to avoid) : alkali metals

Information about
decomposition : No decomposition if stored and applied as directed.

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Acute oral toxicity : LD50 rat
Dose: 766 mg/kg
(cobalt(II)chloride-hexahydrate)

irritation, Sensitization, Other data Toxicology

Sensitization : May cause sensitization of susceptible persons by skin contact.

Repeated dose toxicity : no data available

12. ECOLOGICAL INFORMATION

Decomposition : not readily biodegradable.

Ecotoxicity effects

Ecotoxicity : no data available

Additional information about
ecology : Heavy metals should not be released into the environment.

Water contaminating class : (Selbsteinstufung nach VwVwS-Konzept)
WGK 1 slightly water endangering

13. DISPOSAL CONSIDERATIONS

Product : Dispose as special waste Can be landfilled or incinerated,
when in compliance with the Environmental Protection
(Duty of Care) Regulations 1991.



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14. TRANSPORT INFORMATION

Land transport : Not classified as dangerous in the meaning of transport regulations.

Sea transport : Not classified as dangerous in the meaning of transport regulations.

Air transport : Not classified as dangerous in the meaning of transport regulations.

15. REGULATORY INFORMATION

General advice : The product does not need to be labelled in accordance with EC directives or respective national laws.

Hazardous components which must be listed on the label:

- Not applicable

Other data:

Contains: COBALT DICHLORIDE May produce an allergic reaction.

Other information : Handle in accordance with good industrial hygiene and safety practice.

Notification status: preparation

Components / CAS-No.	Registered in / No.	Status
COBALT DICHLORIDE 7646-79-9	AICS	listed
	DSL	listed
	INV (CN)	listed
	ENCS (JP) (1)-06095	listed
	TSCA	listed
	EINECS 231-589-4	listed
	KECI (KR) KE-06095	listed
	PICCS (PH)	listed

16. OTHER INFORMATION

Relevant R-Phrases acc. Chapter 2 and 3 : R22 - Harmful if swallowed.
R42/43 - May cause sensitization by inhalation and skin contact.
R49 - May cause cancer by inhalation.



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R50/53 - Very toxic to aquatic organisms, may cause long-term effects in the aquatic environment.

Responsible for SDS: Environmental Protection Contact person: Dep. CEQ Tel.: 08761/82-654

The information presented herein is believed to be accurate, but is not warranted.

It does not represent any assurance of properties of the product.

The specifications are to be drawn from the corresponding leaflet.

A vertical bar (|) in the left margin indicates an amendment from the previous version.

Legend

n.a.: not applicable

n.av.: not available

n.r.: not relevant

Name	Di (2-ethylhexyl) phthalate (DEHP) Also known as Di-octyl phthalate (DOP)
CAS number	117-81-7
EINECS number	204-211-0
What is DEHP?	DEHP is a substance that is used as a plasticiser to make PVC plastic soft and flexible. It is a colourless and odourless organic chemical.
Where is it used?	DEHP is used in a wide range of soft PVC products ranging from lifesaving medical devices such as medical tubing and blood bags, to footwear, electrical cables, packaging, tarpaulins for lorries, stationery and roofing.
Why is it used?	Plasticisers are essential to make PVC flexible. PVC is rigid by nature but plasticisers give it similar properties to rubber: it becomes flexible and expandable, whilst retaining its shape. There are many different plasticisers available but a manufacturer of PVC will make what they believe to be the best choice for their particular products. DEHP is widely used because for many years it has provided particularly good processing and end product performance which in many cases cannot be matched by alternatives.
Is it safe?	The use of DEHP has been carefully considered by EU scientists and it is already well regulated by European legislation relating to toys and childcare articles, cosmetics, food contact materials and medical devices. Indeed, DEHP has been used for more than 50 years without a single known case of anyone having been harmed as a result. DEHP is not classified as a human carcinogen or mutagen and it does not accumulate in humans or in the environment
Why is DEHP on the REACH Candidate List?	Substances are placed on the Candidate List for authorisation based on their <i>potential</i> to cause harm (their hazard) rather than on any <i>actual</i> risk they may pose. In the case of DEHP, it has been put on the candidate list due to reproductive effects that have been seen during tests on rodents. However, as these effects are only seen at levels much higher than humans are usually exposed to, there is no danger from its use in most everyday PVC products.
Where can I find more information?	www.dehp-facts.com