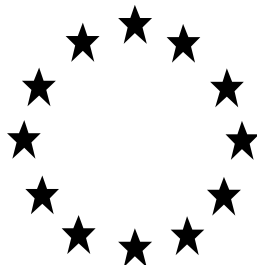


Competent Authority Report



COPPER PYRITHIONE (PT 21)

DOCUMENT III A8

Measures necessary to protect humans, animals and the environment

Applicant: Arch Chemicals Inc.
Rapporteur Member State: Sweden

Final CAR September 2014

Section A8.1
Annex Point IIA,VIII.8.1 **Recommended methods and precautions concerning
handling, use, storage, transport or fire**

Official
use only

Handling and storage

Information for safe handling:

Do not take internally
Avoid breathing dust, mist or vapour.
Avoid contact with skin, eyes and clothing. Upon contact with
skin or eyes, wash off with water and seek medical advice.
Remove contaminated clothing immediately and launder before
re-use.
Avoid all sources of ignition.

Storage:

Shelf life : Two years
Store in a cool dry well ventilated place.
Do not expose to direct light.

Further information about storage conditions:

Recommended storage temperature:

Do not store at temperatures above 54C

Incompatible materials:

Strong Oxidisers

Exposure controls/Personal protection

**Ingredients with limit values that require monitoring at the
workplace:**

14915-37-8 Copper Pyrithione

TWA 8 HOURS: Arch Internal Value 0.4 mg/m³ (30 minutes)

Long-term value: Arch Internal Value 0.35 mg/m³

X a

General protective and hygienic measures:

Have an emergency eye wash and shower available in
immediate area.

Section A8.1
Annex Point IIA,VIII.8.1 **Recommended methods and precautions concerning
handling, use, storage, transport or fire**

Respiratory protection:

In conditions at or above the Arch Internal Exposure Standard (0.35 mg/m³) wear a full-face dust/mist respirator equipped with high efficiency particulate filter cartridges.

X a

Protection of hands:

Impervious gloves

Material of gloves:

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer

Penetration time of glove material:

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection:

Tightly sealed goggles

Body protection:

Impervious protective clothing

Additional Information:

Use local exhaust ventilation to maintain levels below the Arch Internal Exposure Standard of 0.35mg/m³.

X a

Transport information

ADR/RID

class: 6.1 Toxic substances.

Danger code (Kemler): 66

UN-Number: 2811

Packaging group: I

Section A8.1
Annex Point IIA,VIII.8.1 **Recommended methods and precautions concerning
handling, use, storage, transport or fire**

Hazard label 6.1

Description of goods: 2811 TOXIC SOLID, ORGANIC,
N.O.S. (Copper Pyrithione)

Maritime transport IMDG:

IMDG Class: 6.1

UN Number: 2811

Label 6.1

Packaging group: I

Marine pollutant: Yes

Proper shipping name: 2811 TOXIC SOLID, ORGANIC,
N.O.S. (Copper Pyrithione)

Air transport ICAO-TI and IATA-DGR:

ICAO/IATA Class: 6.1

UN/ID Number: 2811

Label 6.1

Packaging group: I

Proper shipping name: 2811 TOXIC SOLID, ORGANIC,
N.O.S. (Copper Pyrithione)

Transport/Additional information:

A package that contains a "Marine pollutant" and offered for transport by ocean under IMDG code, must be durably marked with "Marine pollutant" mark (except for small quantity exception - see IMDG code section 7.2.1.2).

Fire-fighting measures

Suitable extinguishing agents:

Carbon dioxide

Water spray

Protective equipment:

You are recommended to wear a positive pressure respirator with vapour/mist

cartridges, splash proof goggles, hard hat and impervious gloves, boots and clothing.

Additional information

Section A8.1	Recommended methods and precautions concerning handling, use, storage, transport or fire
Annex Point IIA, VIII.8.1	<p>This material burns very rapidly once ignited, it produces large flames coupled with the evolution of dense / green smoke.</p> <p>Water spray can be used to reduce burning and for cooling containers.</p> <p>Take note of surrounding materials.</p> <p>In case of fire use normal fire fighting equipment</p>
Evaluation by Competent Authorities	
Evaluation by Rapporteur Member State	
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Section A8.2 **In case of fire, nature of reaction products, combustion
Annex Point IIA,VIII.8.2** **gases, etc.**

Official
use only

Fire-fighting measures

Suitable extinguishing agents:

Carbon dioxide
Water spray

Protective equipment:

You are recommended to wear a positive pressure respirator with vapour/mist cartridges, splash proof goggles, hard hat and impervious gloves, boots and clothing.

Additional information

This material burns very rapidly once ignited, it produces large flames coupled with the evolution of dense / green smoke.
Water spray can be used to reduce burning and for cooling containers.
Take note of surrounding materials.
In case of fire use normal fire fighting equipment

Hazardous decomposition products:

Materials to be avoided:

Strong Oxidising agents

Dangerous decomposition products:

Copper containing fumes
Sulphur
Carbon monoxide
Sulphur dioxide
Nitrogen oxides

Additional information:

Direct exposure to ultraviolet radiation causes slow decomposition.

Section A8.2 Annex Point IIA,VIII.8.2	In case of fire, nature of reaction products, combustion gases, etc.
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Section A8.3

Emergency measures in case of an accident

Annex Point IIA,VIII.8.3

Official
use only

Emergency measures in case of an accident

Person-related safety precautions:

Evacuation procedures must be placed into effect, evacuate all non-essential personnel.

Hazardous concentrations may be found in local spill area and immediately downwind.

You are recommended to wear a positive pressure respirator with vapour/mist

cartridges, splash proof goggles, hard hat, and impervious gloves, boots and clothing.

In case of fire use normal fire fighting equipment

Measures for environmental protection:

Minimise dust formation

Stop water flow or divert water around spill area if safe to do so.

Stop source of spill as soon as possible and notify site or duty manager.

Notify the Emergency Services, National Environment Agency.

Inform all downstream users of possible contamination.

Heavier than and not soluble in water

Vapours may be suppressed by use of a water fog

Measures for cleaning/ collecting:

Create a dike or trench to contain materials

Remove/clean up material by use of vacuum system/pumps or sweep up.

Do not place spill material back into original containers.

Containerise and label properly for disposal as a hazardous waste.

Launder contaminated clothing before re-use.

Hazards identification

on the skin:

Section A8.3

Emergency measures in case of an accident

Annex Point IIA, VIII.8.3

Dermal contact may cause irritation consisting of transient redness. This irritant effect would not be expected to result in permanent damage.

on the eye:

Severe irritation and / or burns can occur following eye contact. May cause impairment of vision and corneal damage.

Inhalation:

Over exposure to dust may be harmful

Acute exposure may cause transient irritation to the respiratory tract.

Symptoms may include tremors, ataxia and convulsions.

Chronic exposure may cause respiratory irritation.

Skeletal muscle atrophy and peripheral nerve damage characterised by general muscle weakness has been reported in animal studies after repeated exposures to high concentrations.

Ingestion:

May be harmful if swallowed

If small quantities are ingested, vomiting will normally occur (usually within 5 to 10 minutes). Copper Pyrithione is also an emetic, due to this property it is unlikely that significant quantities of material would be absorbed across the gastrointestinal tract to produce serious toxic effects. However, ingestion may produce gastrointestinal irritation with nausea, vomiting, lethargy and diarrhoea. CHRONIC toxicity via ingestion is unlikely due to its emetic effect.

First-aid measures

After inhalation:

Symptoms may include tremors, ataxia and convulsions.

If breathing is difficult, administer oxygen, keep the person warm and at rest.

Low exposure to dust may cause mild and transient irritation to the respiratory tract.

After skin contact:

Immediately wash with water and soap and rinse thoroughly.

Seek immediate medical advice.

Remove contaminated clothing immediately and launder before re-use.

Acute exposure may cause transient redness and irritation.

Section A8.3 **Emergency measures in case of an accident**
Annex Point IIA,VIII.8.3

After eye contact:

Immediately flush with large amounts of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Seek immediate medical attention.

Contact with the eyes may cause severe irritation

After swallowing:

Immediately drink large quantities of water.

Vomiting is expected within 5/10 minutes.

DO NOT give anything by mouth if the person is unconscious or is having convulsions.

If swallowed, gastroenteritis may occur with nausea, vomiting, lethargy and diarrhoea.

Evaluation by Competent Authorities

Evaluation by Rapporteur Member State

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Section A8.4 Annex Point IIA,VIII.8.4	Possibility of destruction or decontamination following release in or on the following: (a) air (b) water, including drinking water (c) soil	Official use only
<p style="text-align: center;">Measures for environmental protection:</p> <p>Minimise dust formation Stop water flow or divert water around spill area if safe to do so. Stop source of spill as soon as possible and notify site or duty manager. Notify the Emergency Services, National Environment Agency. Inform all downstream users of possible contamination. Heavier than and not soluble in water Vapours may be suppressed by use of a water fog</p> <p style="text-align: center;">Measures for cleaning/ collecting:</p> <p>Create a dike or trench to contain materials Remove/clean up material by use of vacuum system/pumps or sweep up. Do not place spill material back into original containers. Containerise and label properly for disposal as a hazardous waste. Launder contaminated clothing before re-use.</p>		
Evaluation by Competent Authorities		
Evaluation by Rapporteur Member State		
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Evaluation of applicant's justification		
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Section A8.5 Annex Point IIA, VIII.8.5	Procedures for waste management of the active substance for industry or professional users	
		Official use only
Disposal considerations Recommendation		
<p>Care must be taken to prevent environment contamination from the use of this material.</p> <p>The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, national and EU laws, directives and regulations regarding treatment, storage and disposal for hazardous and non hazardous wastes.</p>		
Evaluation by Competent Authorities		
Evaluation by Rapporteur Member State		
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Remarks		

Section A8.5.1 Possibility of re-use or recycling	
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Annex Point II A, VIII.8.5.1	
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	Official use only
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The production process for this substance does not lend itself to recycle of contaminated materials. The production cycle is a complex chemical route which would not allow breakdown of the molecule and its reformation by any “simple” chemical process.	
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Any contaminated material should therefore be considered to be a waste And document A8.5 should be consulted.	
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Where material has is uncontaminated, then this may be recycled by repacking or re-labelling.	
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Remarks	██
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Section A8.5.2 Possibility of neutralisation of effects Annex Point IIA, VIII.8.5.2	
Official use only	
<p>Large quantities of contaminated materials should be collected physically and treated as hazardous wastes (see section 8.5).</p> <p>Once the initial quantity has been collected, then the remaining small quantity which remains as a contamination of floors etc, may be neutralised by the addition of a dilute solution of sodium hypochlorite solution (bleach). Household quality bleach should be diluted approximately 20:1, and this material then used to cleanse and decontaminate surfaces etc. The washings should be collected and again treated as hazardous waste, but not mixed with the original waste.</p> <p>Dilute waste streams may be subjected to ultra-violet radiation to transform the pyrithione to 2 PSA.</p>	
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Date	[REDACTED]
Evaluation of applicant's justification	[REDACTED]
Conclusion	[REDACTED]
Remarks	[REDACTED]

Section A8.5.3		Conditions for controlled discharge including leachate	
Annex Point IIA, VIII.8.5.3		qualities on disposal	
		Official use only	
<p>Very low concentration in leachate or other large volumes of water may be disposed of to sewage treatment or other licensed waste treatment processes provided the influent concentration is maintained below the requisite inhibition concentration (0.01 mg/L based upon a NOEC for STP of 0.1 mg/L). Materials may be pre-treated by subjecting them to ultra-violet radiation. Such discharge should be within any licence conditions for the STP and should be discussed with the operator of the STP before such discharge.</p>			
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Evaluation by Rapporteur Member State			
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Section A8.5.4

Conditions for controlled incineration

Annex Point IIA, VIII.8.5.4

Official
use only

Copper Pyrithione may be disposed of via high temperature incineration at temperature > 1000°C, provided excess oxygen is maintained in the incineration process. These criteria must be set by the incinerator operators.

Since the substance does not contain any chlorine, the formation of dioxins etc. is not possible.

Copper Pyrithione is converted to Carbon Dioxide, Water, and Sulphur oxides in the incinerations process and so the incinerator must be fitted with post combustion neutralisation systems. The copper is converted to essentially copper oxide and this should be removed by dust eliminators in the incinerator construction.

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Date

**Evaluation of applicant's
justification**

Conclusion

Remarks

Section A8.6 Annex Point IIA,VIII.8.6	Observations on undesirable or unintended side effects, for example, on beneficial and other non-target organisms	
		Official use only
There are no observations on undesirable or unintended side effects.		
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