

Section A8
Annex Point IIA,
VIII.8.1/2/3/4/5/6/7

Measures necessary to protect man, animals and the environment

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- 8.1 Recommended methods and precautions concerning handling, use, storage, transport or fire (IIA8.1)**
- 8.1.0 Methods and precautions concerning placing on the market** Not relevant: Cyanamide is not commercially available. It is an intermediate substance which is used for further processing of biocides, plant protection products or plant growth regulators.
- 8.1.1 Methods and precautions concerning production, handling and use of the active substance and its formulations** The production process is described in detail in Document IIIA, point A2.10. Please refer to folder "Confidential data".
- 8.1.1.1 Handling** *Safe handling advice*
For professional use only. Use only in well-ventilated areas.
Avoid formation of dust and aerosols.
Handle in accordance with good industrial hygiene and safety practices.
Do not consume alcoholic beverages during handling cyanamide.
- 8.1.1.2 Use**
- Exposure controls** *Components with workplace control measures*
- | | | | | |
|----------------------------|---------------------|----------------|-----------|--|
| CAS-No. | 420-04-2 | | | |
| Control parameters | 1 mg/m ³ | Time weighted | average | |
| | | (TWA):(EU ELV) | | |
| • Cyanamide; carbamonitril | | | | |
| CAS-No. | 420-04-2 | EC-No. | 206-992-3 | |
| Control parameters | 1 mg/m ³ | Time weighted | average | |

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(TWA):(EU ELV)

8.1.1.3 Personal protective equipment

Respiratory protection

Respirator with combination filter for vapour/particulate (EN 141)

Hand protection

Wear protective gloves made of the following materials:

Glove material Polychloroprene with natural – latex liner.
Recommendation: Camapren 722, Kächele-Cama Latex GmbH (KCL), Germany
Material thickness 0.6 mm
Break through time: > 480 min
Method DIN EN 374

Glove material nitrile rubber, Recommendation: Camatril 730, Kächele-Cama Latex GmbH (KCL), Germany
Material thickness 0.4 mm
Break through time: > 480 min
Method DIN EN 374

Glove material butyl rubber, Recommendation: Butoject 898, Kächele-CamaLatex GmbH (KCL), Germany
Material thickness 0.7 mm
Break through time: > 480 min
Method DIN EN 374

Eye protection

Tightly fitting safety goggles

Skin and body protection

Chemical-resistant protective suit, type 3, EN 14605:2003, e.g. Pro-Chem® IC
rubber boots (EN 13832)

Hygiene measures

Do not inhale vapours / dust. Contact with skin, eyes and clothes must be strictly avoided. Remove contaminated or saturated clothing immediately and dispose of safely. Wash contaminated clothing before re-use.
When using, do not eat, drink or smoke.
Do not consume alcoholic beverages prior to, during and 24 hours after handling the product.
Wash hands before breaks and immediately after handling the product.
Keep away from food, drink and animal feedingstuffs.

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8.1.2 Methods and precautions concerning storage of the active substance and its formulations

8.1.2.1 Storage

Requirements for storage areas and containers

Protect from direct sunlight.
Suitable materials: Polyethylene, Polypropylene, Austenitic steel

Storage stability

4 weeks \leq 20 °C
Even if stored as directed, the product should be processed within 4 weeks after arrival

8.1.3 Methods and precautions concerning transport of the active substance and its formulations

8.1.3.1 Transport information

Land transport ADR/RID/GGVSE (Germany)

Class	8
ADR/RID-Labels	8 (6.1)
UN-No	2923
Packaging group	III
orange warning plate	86/2923
Description of goods (Technical name)	CORROSIVE SOLID, TOXIC, N.O.S. (cont. Cyanamide)

Sea transport IMDG-Code/GGVSee

Class	8
Subsidiary risk	6.1
UN-No	2923
Packaging group	III
EmS	F-A, S-B
Proper technical name (Proper shipping name)	CORROSIVE SOLID, TOXIC, N.O.S. (cont. Cyanamide)

Air transport ICAO-TI/IATA-DGR

Class	8
Subsidiary risk	6.1
UN-No	2923
Packaging group	III
Proper technical name (Proper shipping name)	

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	CORROSIVE SOLID, TOXIC, N.O.S. (cont. Cyanamide)	
Inland water way transport	Class	8
ADN/ADNR/GGV	ADR/RID-Labels	8 (6.1)
BinSch (Germany)	UN-No/Substance number	2923
	Packaging group	III
	Description of goods (Technical name) CORROSIVE SOLID, TOXIC, N.O.S. (cont. Cyanamide)	
Loading instructions/Remarks	IAT-C	ERG-Code 8P
	IATA-P	ERG-Code 8P
	IMDG	Clear of living quarters
Transport/further information	Keep separate from foodstuffs, luxury foods, feedstuffs	
Further information:	RID: Not permitted for transport	
8.1.4 Methods and precautions concerning fire of the active substance and its formulations		
Advice on protection against fire and explosion	Keep away from combustible material. Avoid temperatures above 40 °C. Incompatible with acids and bases.	
8.2	In case of fire, nature of reaction products, combustion gases, etc. (IIA8.2)	
Suitable extinguishing media	Carbon dioxide (CO ₂), dry powder, dry sand, water spray	
Extinguishing media which must not be used for safety reasons	High volume water jet	
Specific hazards during fire fighting	In the case of fire, the following hazardous smoke fumes may be produced: - Ammonia - Nitrous gases - Carbon oxides - Hydro-cyanic acid	
Special protective equipment for fire-fighters	In the case of fire, wear respiratory protective equipment independent of surrounding air and chemical protective suit	

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Further information	Cool containers/tanks with water spray
8.3	Emergency measures in case of an accident (IIA8.3)
8.3.1 Specific treatment in case of an accident, e.g. first-aid measures, antidotes, medical treatment if available	
Accidental release measures	Personal precautions Use personal protective equipment. Ensure adequate ventilation
Measures for cleaning/collecting	Sweep and shovel Avoid dust formation. Keep in suitable, closed containers for disposal. Disposal according to local authority regulations. Flush away with water. Don't use a high-pressure cleaner in order to avoid the formation of aerosols.
First-aid measures	
Inhalation	Move to fresh air. Consult a physician after significant exposure.
Skin contact	Remove contaminated or saturated clothing immediately and dispose of safely. Wash off immediately with plenty of water.
Eye contact	Rinse thoroughly immediately with plenty of water for several minutes keeping eyelid open. Always consult an ophthalmologist.
Ingestion	Rinse mouth. Drink 1 or 2 glasses of water. Do NOT induce vomiting. If conscious and medical aid is not available immediately, induce vomiting. Be sure to keep victim's head below hips to avoid aspiration of vomitus into the lungs.
Notes to physician	Symptoms: erythema Fall in blood pressure increased pulse frequency,

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	<p>nausea feeling of burning, headache Irritation of skin and mucous membranes after the intake of large amounts circulatory depression up to unconsciousness are possible Caution: Alcoholic beverages interact with cyanamide. Symptoms showing flush are possible (difficulty in breathing, bright red face). The symptoms of this interaction disappear rapidly and are generally harmless. The skin irritating effects is enhanced by sweat (gloves with inner contamination).</p>
Treatment	<p>No specific antidote known. Symptomatic treatment. After the intake of small amounts: administer activated charcoal, sodium sulphate and much liquid orally. After the intake of large amounts: monitoring of circulatory functions, if necessary irrigation of the stomach preventing aspiration and taking into account the irritating properties to mucous membranes. In case of skin irritation, use corticoid external preparations.</p>
8.3.2 Emergency measures to protect the environment	
Environmental precautions	<p>Product or extinguishing water with product must not be allowed to enter soil, sewers or natural bodies of water.</p>
8.4	<p>Possibility of destruction or decontamination following release in or on the following: (a) Air; (b) Water, including drinking water; (c) Soil (IIA8.4)</p>
8.4.1 Possibility of destruction or decontamination following release in the air	<p>Not relevant: Cyanamide is not commercially available. The production process including the possibility of a release in the air is described in detail in Document IIIA, point 2.10. Please refer to folder "Confidential data".</p>
8.4.2 Possibility of destruction or decontamination following release in water, including drinking water	<p>Not relevant: Cyanamide is not commercially available. The production process including the possibility of a release in water is described in detail in Document IIIA, point 2.10. Please refer to folder "Confidential data".</p>
8.4.3 Possibility of destruction or decontamination	<p>Not relevant: Cyanamide is not commercially available. The production process including the possibility of a release in or on soil is described in detail in Document IIIA, point 2.10. Please refer to folder "Confidential</p>

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following release in or on soil	data".
8.5	Procedures for waste management of the active substance for industry or professional users e.g. possibility of re-use or recycling, neutralisation, conditions for controlled discharge, and incineration (IIA8.5)
8.5.0 Disposal considerations	Note: The active substance Cyanamide is not commercially available. Therefore the disposal considerations for the biocidal product are described in the material safety data sheet of Cyanamide. Please refer also to Doc No 953-004, Document IIIA, Section A.3 submitted in April 2006.
Product	In compliance with actual waste regulations, the product must be brought to a suitable disposal plant.
Uncleaned packaging	Packaging, that can not be reused after cleaning must be disposed or recycled in accordance with all federal, national and local regulations.
8.5.1 Possibility of re-use or recycling	see above
8.5.2 Possibility of neutralisation of effects	see above
8.5.3 Conditions for controlled discharge including leachate qualities on disposal	see above
8.5.4 Conditions for controlled incineration	Incineration is not suggested as a suitable waste disposal method. Therefore, information regarding compounds generated by incineration, recommended burning conditions or other information needed for a safe incineration of the waste can not be given.
8.6	Observations on undesirable or unintended side-effects, e.g. on beneficial and other non-target organisms (IIA8.6) There are no observations on undesirable or unintended side effects of the active ingredient Cyanamide.
8.7	Identification of any substances falling within the scope of List I or List II of the Annex to Directive 80/68/EEC on the protection of groundwater against pollution caused by certain dangerous substances (IIA8.7)

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Neither the active substance nor any additives or impurities are falling within the scope of List I or List II of the Annex to Directive 80/68/EEC on the protection of ground water against pollution caused by certain dangerous substances.

Evaluation by Competent Authorities

Use separate "evaluation boxes" to provide transparency as to the comments and views submitted

EVALUATION BY RAPPORTEUR MEMBER STATE

Date	2016/04/15
Materials and methods	Operator exposure study by Rath, 2011 (Doc III B6.6/01-02) for 8.1.1 Methods and precautions concerning handling and use of the active substance and its formulations.
Results and discussion	The recommendations of <ul style="list-style-type: none">chemically protective gloves (Camatril 732, Cat.III, EN 374 AJL, thickness ca. 0,40 mm, length ca. 400 mm has proven to be effective),chemical protection suit, Cat. III, Type 3 (Pro-Chem I "C") rely on the study of Rath, 2011. For other recommendations PPE reported by the participant, no studies about e.g. effectiveness were given.
Conclusion	Please, refer to Doc.II-chapter 8.2.2 and chapter 15.1.2
Reliability	not applicable
Acceptability	acceptable
Remarks	No remarks

COMMENTS FROM ...

Date	<i>Give date of comments submitted</i>
Results and discussion	<i>Discuss additional relevant discrepancies referring to the (sub)heading numbers and to applicant's summary and conclusion. Discuss if deviating from view of rapporteur member state</i>
Conclusion	<i>Discuss if deviating from view of rapporteur member state</i>
Reliability	<i>Discuss if deviating from view of rapporteur member state</i>
Acceptability	<i>Discuss if deviating from view of rapporteur member state</i>
Remarks	

9 Classification and labelling

The following proposal on the classification and labelling of pure Cyanamide has been taken from the draft DAR on the pure active substance Cyanamide under 91/414/EEC (the final DAR was not yet available at the date of submission of the present BPD dossier):

“The following is proposed in accordance with the latest classification and labelling guidance under Directive 67/548/EEC (i.e. in the 29th ATP published as Directive 2004/73/EC):

Hazard symbol: T

Indication of danger: Toxic

Risk phrases:

- R 25 Toxic if swallowed*
- R 21 Harmful in contact with skin*
- R 38 Irritating to skin*
- R 36 Irritating to eyes*
- R 43 May cause sensitisation by skin contact*
- R 62 Possible risk of impaired fertility (Repr. Cat. 3)*
- R 63 Possible risk of harm to the unborn child (Repr. Cat. 3)*

Hazard symbol: N

Indication of danger: Dangerous to the environment

Risk phrases:

- R 50/53 Very toxic to aquatic organisms/ may cause long term adverse effects in the aquatic environment. (based on the results of the test with cyanobacteria and the active substance)*
- R 57 Toxic to bees”*

The applicant proposes the following classification and labelling:

Active substance component cyanamide (pure cyanamide)

R 21 Harmful in contact with skin

R 25 Toxic if swallowed

R 36 Irritating to eyes

R 38 Irritating to skin

R 43 May cause sensitisation by skin contact

R 50/53 Very toxic to aquatic organisms/ may cause long term adverse effects in the aquatic environment

The Applicant does not agree with the proposal of the RMS (letter of the BAuA dated 27 June 2007) to apply R62 (Possible risk of impaired fertility) and R63 (Possible risk of harm to the unborn child). Please refer to the expert opinion on the reproductive toxicity of cyanamide in Document IIIA, Section 6, Point 6.8.1/03, Doc No 581-012 of the dossier submitted in April 2006. We also refer to the presentation by Dr. Schilling at the meeting of the "Beraterkreis" on 29 August 2007.

R57 (toxic to bees), as proposed by the RMS (following the proposal of the Applicant in the 2006 Dossier), does not need to be applied according to a letter by BAUA dated August 03, 2007.

S3 Keep in a cool place

S22 Do not breath dust

S36/37 Wear suitable protective clothing and gloves

S45 In case of accident of if you feel unwell, seek medical advice immediately. (Show the label where possible.)

S61 Avoid release to the environment. Refer to special instructions / Safety data sheets.

Technical solution (= active substance to be included in Annex I = 50% technical solution)

R21/22 Harmful in contact with skin and if swallowed

R36/38 Irritating to eyes and skin

R43 May cause sensitisation by skin contact

R51/53 Toxic to aquatic organisms/ may cause long term adverse effects in the aquatic environment.

S1/2 Keep locked up and out of reach of children

S3 Keep in a cool place

S23 Do not breathe spray or vapour

S29 Do not empty into drain

S36/37 Wear suitable protective clothing and gloves

S46 If swallowed, seek medical advice immediately and show label

Evaluation by Competent Authorities																	
Use separate "evaluation boxes" to provide transparency as to the comments and views submitted																	
Evaluation by Rapporteur Member State																	
Date	2016/05/09																
Results and discussion	<p>According to the RAC opinion adopted 5th June 2015 the following classification and labelling according to Regulation (EC) No 1272/2008 is required:</p> <table border="0"> <tr> <td>Carc. 2</td> <td>H351</td> </tr> <tr> <td>Repr. 2</td> <td>H361fd</td> </tr> <tr> <td>Acute Tox. 3</td> <td>H301</td> </tr> <tr> <td>Acute Tox. 3</td> <td>H311</td> </tr> <tr> <td>Skin Corr. 1</td> <td>H314</td> </tr> <tr> <td>Skin Sens. 1</td> <td>H317</td> </tr> <tr> <td>STOT RE 2</td> <td>H373 (thyroid)</td> </tr> <tr> <td>Aquatic Chronic 3</td> <td>H412</td> </tr> </table> <p>Based on the RAC opinion the following labelling is required: GHS08, GHS06, GHS05, Dgr, H351, H361fd, H301, H311, H314, H317, H373 (thyroid), H412</p>	Carc. 2	H351	Repr. 2	H361fd	Acute Tox. 3	H301	Acute Tox. 3	H311	Skin Corr. 1	H314	Skin Sens. 1	H317	STOT RE 2	H373 (thyroid)	Aquatic Chronic 3	H412
Carc. 2	H351																
Repr. 2	H361fd																
Acute Tox. 3	H301																
Acute Tox. 3	H311																
Skin Corr. 1	H314																
Skin Sens. 1	H317																
STOT RE 2	H373 (thyroid)																
Aquatic Chronic 3	H412																
Conclusion	Cf. to results and discussion.																
Remarks	None																
COMMENTS FROM ...																	
Date	<i>Give date of comments submitted</i>																
Results and discussion	<i>Discuss additional relevant discrepancies referring to the (sub)heading numbers and to applicant's summary and conclusion. Discuss if deviating from view of rapporteur member state</i>																
Conclusion	<i>Discuss if deviating from view of rapporteur member state</i>																
Reliability	<i>Discuss if deviating from view of rapporteur member state</i>																
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Remarks																	