

according to Regulation (EC) No. 1907/2006 (REACH)

 Revision date :
 19-07-2021

 Print date :
 07-09-2021

 Version :
 1.0.0

Aako Protect BCDMH gran S-IN-000805

SECTION 1: Identification of the substance/mixture and of the company/ undertaking

1.1 Product identifier

Aako Protect BCDMH gran (S-IN-000805)
BROMOCHLORO-5,5-DIMETHYLIMIDAZOLIDINE-2,4-DIONE; CAS No.: 32718-18-6; EC No.: 251-171-5

1.2 Relevant identified uses of the substance or mixture and uses advised against Relevant identified uses

Biocidal active substance

1.3 Details of the supplier of the safety data sheet

Supplier (manufacturer/importer/only representative/downstream user/distributor)

AAKO B.V.

Street: Arnhemseweg 87

Postal code/city: 3830 AE Leusden The Netherlands

 Telephone :
 +31 (0) 33 494 84 94

 Telefax :
 +31 (0) 33 494 80 44

 Information contact :
 regulatory@aako.nl

1.4 Emergency telephone number

See supplier (Telephone number is accessible only during business hours).

or

Call local Poison Control Centre for assistance.

BE: +32 70 245 245

NL: +31 30 274 88 88 (This service is only accessible by professional health workers).

LU: +352 800 255 00

DE (Berlin): +49 30 192 40 / DE (Erfurt): +49 361 730 730 / DE (Munchen): +49 30 192 40

FR (Paris): +33 (0)1 40 05 48 48 / FR (Angers): +33 (0)2 41 48 21 21 / FR (Bordeaux): +33 (0)5 56 96 40 80 / FR (Lille): +33 (0)8 00 59 59 59 / FR (Lyon): +33 (0)4 72 11 69 11 / FR (Marseille): +33 (0)4 91 75 25 25 / FR (Nancy)

: +33 (0)3 83 22 50 50 / FR (Toulouse) : +33 (0)5 61 77 74 47

SE: 112 (local); +46 (0)10 456 6700

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP]

Acute Tox. 4 ; H302 - Acute toxicity (oral) : Category 4 ; Harmful if swallowed.

Skin Corr. 1B; H314 - Skin corrosion/irritation: Category 1B; Causes severe skin burns and eye damage.

Eye Dam. 1; H318 - Serious eye damage/eye irritation: Category 1; Causes serious eye damage.

Skin Sens. 1 ; H317 - Skin sensitisation : Category 1 ; May cause an allergic skin reaction.

Aquatic Acute 1; H400 - Hazardous to the aquatic environment: Acute 1; Very toxic to aquatic life.

2.2 Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

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Hazard pictograms







Corrosion (GHS05) · Environment (GHS09) · Exclamation mark (GHS07)

Signal word

Danger

Hazard components for labelling

BROMOCHLORO-5,5-DIMETHYLIMIDAZOLIDINE-2,4-DIONE; CAS No.: 32718-18-6

Hazard statements

H314 Causes severe skin burns and eye damage.

H302 Harmful if swallowed.

H317 May cause an allergic skin reaction.

H400 Very toxic to aquatic life.

Precautionary statements

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P310 Immediately call a POISON CENTER or doctor/physician.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present

and easy to do. Continue rinsing.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water

[or shower].

P362+P364 Take off contaminated clothing and wash it before reuse.

P391 Collect spillage. **Supplemental Hazard information (EU)**

EUH031 Contact with acids liberates toxic gas.

2.3 Other hazards

None under normal conditions.

Dust may form explosive mixture in air.

Adverse human health effects and symptoms

May cause an allergic skin reaction.

SECTION 3: Composition/information on ingredients

3.1 Substances

Substance name: BROMOCHLORO-5,5-DIMETHYLIMIDAZOLIDINE-2,4-DIONE

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Purity: \geq 96 - < 99,5 % [mass]

SECTION 4: First aid measures

4.1 Description of first aid measures

General information

When in doubt or if symptoms are observed, get medical advice.

Following inhalation

Remove victim out of the danger area.

Remove victim to fresh air.

Remove victim to fresh air and keep at rest in a position comfortable for breathing.

If breathing is irregular or stopped, administer artificial respiration.

Seek medical attention if ill effect or irritation develops.

In case of skin contact

Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Seek medical attention immediately.

After eye contact

Continue to rinse eye with clean water for 10 - 15 minutes, retracting eyelids often.

Remove contact lenses, if present and easy to do. Continue rinsing.

Seek medical attention immediately.

After ingestion

Rinse mouth thoroughly with water.

Seek medical attention immediately.

Do NOT induce vomiting.

Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

After eye contact:

Causes serious eye damage. After skin contact:

Causes burns.

May cause an allergic skin reaction.

After inhalation:

Irritating to respiratory system.

Breathing difficulties.

After ingestion:

Harmful if swallowed.

4.3 Indication of any immediate medical attention and special treatment needed

Give supportive therapy. Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

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Suitable extinguishing media

Carbon dioxide (CO2).

Water spray.

5.2 Special hazards arising from the substance or mixture

Dust may form explosive mixture in air.

May intensify fire; oxidiser.

Hazardous combustion products

Thermal decomposition generates:

Toxic or corrosive fumes.

Hvdrogen bromide.

Hydrogen chloride (HCl) Chlorine (Cl2)

Carbon oxides.

Nitrogen oxides.

5.3 Advice for firefighters

Do not allow run-off from fire-fighting to enter drains or water courses.

Cool endangered containers with water in case of fire.

Special protective equipment for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment. (see chapter 8).

Do not breathe dust.

Avoid ingestion and inhalation.

Avoid contact with skin and eyes.

Evacuate personnel to safe area.

Provide adequate ventilation.

Remove all sources of ignition.

Avoid generation of dust.

6.2 Environmental precautions

Do not allow to enter into surface water or drains.

Prevent entry to sewers and public waters.

Avoid release to the environment.

Do not allow to enter into ground-water, surface water or drains.

6.3 Methods and material for containment and cleaning up

Take up mechanically, placing in appropriate containers for disposal. Dispose in a safe manner in accordance with local/national regulations.

6.4 Reference to other sections

See protective measures under point 8 and 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

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Wear personal protection equipment. (see chapter 8).

Do not breathe dust.

Avoid ingestion and inhalation.

Good ventilation of the workplace required.

Avoid contact with skin and eyes.

Avoid dust production.

Protective measures

Measures to prevent fire

Dust may form explosive mixture in air.

Take precautionary measures against static discharges.

Avoid dust production.

Keep away from sources of ignition. - No smoking.

7.2 Conditions for safe storage, including any incompatibilities

Keep away from food, drink and animal feedingstuffs.

Keep in original containers.

Keep container tightly closed.

Store in dry, cool, well-ventilated area.

Hints on joint storage

Storage class (TRGS 510): 5.1B

Materials to avoid

Bases.

Oxidising agent

Combustible materials

Further information on storage conditions

Recommended storage temperature : Do not store at temperatures above 30°C

7.3 Specific end use(s)

None

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

None

8.2 Exposure controls

Appropriate engineering controls

Provide adequate ventilation as well as local exhaust ventilation at critical locations.

Personal protection equipment

Eve/face protection

Wear appropriate personal eye protection depending on the work to be performed in accordance with EN166. Chemical goggles.

Skin protection

Hand protection

Wear appropriate chemical resistant gloves according EN 374 also with prolonged, direct contact (Recommended: Protective index 6).

Long-term exposure:

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Breakthrough time: 480 min Thickness of the material: 0,7 mm

Short-term exposure: Breakthrough time: 30 min Thickness of the material: 0,4 mm

Material: Neoprene

Body protection

Wear chemical protective clothing (overalls with long sleeves, two-piece suit resistant to chemical splashes, or chemical resistant disposable coveralls) according to EN 14605 in the event of splashes and EN ISO 13982 in the event of dust.

Wear chemical resistant safety shoes according to EN 13832.

Respiratory protection

Wear approved full face mask dust respirator in accordance with DIN EN 136/140. B: (Gray) Inorganic gases and vapors (chlorine, hydrogen sulphide, hydrocyanic acid). P2

General information

When using do not eat, drink, smoke, sniff.

Wash hands before breaks and after work.

Avoid ingestion and inhalation.

Good ventilation of the workplace required.

Remove contaminated clothing.

Wash clothing before re-using.

Water solubility:

Avoid contact with skin and eyes.

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties Safety characteristics

Physical state: solid Appearance: Granulate Colour: White - Off-white. Odour: Characteristic Melting point/freezing point: Decomposition. Initial boiling point and boiling Decomposes. range: Flash point: not applicable °C **Decomposition temperature:** 160 **Auto-ignition temperature:** No data available pH: No data available Flammability: No data available. Oxidising properties: Oxidizer. **Explosive properties:** No data available. Density: (20°C) 1800 - 2000 kg/m³ **Bulk density:** No data available

(25°C)

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g/L



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Log POW <=

Viscosity: (20°C) not applicable Kinematic viscosity: (40°C) not applicable

9.2 Other information

None

SECTION 10: Stability and reactivity

10.1 Reactivity

No information available.

10.2 Chemical stability

Stable under recommended storage and handling conditions.

Decomposes on heating.

10.3 Possibility of hazardous reactions

May intensify fire; oxidiser. Contact with acids liberates toxic gas.

10.4 Conditions to avoid

Heat.

Moisture.

Dust formation.

10.5 Incompatible materials

Bases.

Oxidising agent

Combustible materials

10.6 Hazardous decomposition products

Thermal decomposition generates:

Hydrogen bromide.

Hydrogen chloride (HCI) Chlorine (Cl2)

Carbon oxides.

Nitrogen oxides.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Acute oral toxicity

LD50 Parameter: Exposure route: Oral Species: Rat Effective dose: 929 mg/kg

Acute dermal toxicity

LD50 Parameter: Exposure route: Dermal

Result: No information available.

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Acute inhalation toxicity

Parameter: LC50

Exposure route: Inhalation

Species: Rat

Effective dose: 1,1 mg/l

Exposure time: 4 h

Powder.

Corrosion

Skin corrosion/irritation

Parameter: Skin corrosion/irritation

Result: Corrosive.

Serious eye damage/eye irritation

Parameter : Serious eye damage/irritation

Result: Corrosive.

Causes serious eye damage.

Respiratory or skin sensitisation

Skin sensitisation

Parameter: Skin sensitisation Result: Sensitising.

May cause an allergic skin reaction.

Sensitisation to the respiratory tract

Parameter: Sensitisation to the respiratory tract

Result: No information available.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

No information available.

STOT-single exposure

No information available.

STOT-repeated exposure

No information available.

Aspiration hazard

No information available.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity

Acute (short-term) fish toxicity

Parameter: LC50

Species: Oncorhynchus mykiss (Rainbow trout)

Effective dose: 0,4 mg/l Exposure time: 96 h

Acute (short-term) daphnia toxicity

Parameter: EC50

Species: Daphnia magna (Big water flea)

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Effective dose : 0,75 mg/l Exposure time : 48 h

12.2 Persistence and degradability

Biodegradation

Parameter: Biodegradation Evaluation: Biodegradable.

12.3 Bioaccumulative potential

Based on the n-octanol/water partition coefficient accumulation in organisms is not expected.

12.4 Mobility in soil

High mobility

No adsorption in soil or sediment expected.

12.5 Results of PBT and vPvB assessment

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

12.6 Other adverse effects

No information available.

12.7 Additional ecotoxicological information

None

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Dispose in a safe manner in accordance with local/national regulations. Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information

14.1 UN number

UN 3085

14.2 UN proper shipping name

Land transport (ADR/RID)

UN3085 OXIDIZING SOLID, CORROSIVE, N.O.S. (BROMOCHLORO-5,5-DIMETHYLIMIDAZOLIDINE-2,4-DIONE) , 5.1 (8) , III, (E)

Sea transport (IMDG)

OXIDIZING SOLID, CORROSIVE, N.O.S. (BROMOCHLORO-5,5-DIMETHYLIMIDAZOLIDINE-2,4-DIONE)

14.3 Transport hazard class(es)

Land transport (ADR/RID)

Class(es): 5.1
Classification code: 0C2
Hazard identification number (Kemler
No.): 58
Tunnel restriction code: E

Special provisions : LQ 5 kg \cdot E 1

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Hazard label(s):

5.1 8 /N

Sea transport (IMDG)

Class(es):
EmS-No.:
Special provisions:
Hazard label(s):

F-A / S-Q LQ 5 kg · E 1

5.1

14.4 Packing group

Ш

14.5 Environmental hazards

Land transport (ADR/RID): Yes **Sea transport (IMDG):** Yes (P)

14.6 Special precautions for user

None

SECTION 15: Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

Ensure all national/local regulations are observed.

EU legislation

Regulation (EU) No. 528/2012 on biocides

Authorisations and/or restrictions on use

Restrictions on use

Use restriction according to REACH annex XVII, no.: 3

National regulations

Water hazard class (WGK)

Class: 2 (Obviously hazardous to water)

15.2 Chemical safety assessment

For this substance a chemical safety assessment is not required.

SECTION 16: Other information

16.1 Indication of changes

None

16.2 Abbreviations and acronyms

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a.i. = Active ingredient

ACGIH = American Conference of Governmental Industrial Hygienists (US)

ADR = European Agreement concerning the International Carriage of Dangerous Goods by Road

AFFF = Aqueous Film Forming Foam

AISE = International Association for Soaps, Detergents and Maintenance Products (joint project of AISE and CEFIC)

AOAC = AOAC International (formerly Association of Official Analytical Chemists)

ag. = Agueous

ASTM = American Society of Testing and Materials (US)

atm = Atmosphere(s)

B.V. = Beperkt Vennootschap (Limited)

BCF = Bioconcentration Factor

bp = Boiling point at stated pressure

bw = Body weight

ca = (Circa) about

CAS No = Chemical Abstracts Service Number (see ACS - American Chemical Society)

CEFIC = European Chemical Industry Council (established 1972)

CIPAC = Collaborative International Pesticides Analytical Council

CLP = REGULATION (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures.

Conc = Concentration

cP = CentiPoise

cSt = Centistokes

d = Day(s)

DIN = Deutsches Institut für Normung e.V.

DNEL = Derived No-Effect Level

DT50 = Time for 50% loss; half-life

EbC50 = Median effective concentration (biomass, e.g. of algae)

EC = European Community; European Commission

EC50 = Median effective concentration

EINECS = European Inventory of Existing Commercial Chemical Substances (EU, outdated, now replaced by EC Number)

ELINCS = European List of Notified (New) Chemicals (see Tab 7, Background - Guide)

ErC50 = Median effective concentration (growth rate, e.g. of algae)

EU = European Union

EWC = European Waste Catalogue

FAO = Food and Agriculture Organization (United Nations)

GIFAP = Groupement International des Associations Nationales de Fabricants de Produits Agrochimiques (now CropLife International)

h = Hour(s)

hPa = HectoPascal (unit of pressure)

IARC = International Agency for Research on Cancer

IATA = International Air Transport Association

IC50 = Concentration that produces 50% inhibition

IMDG Code = International Maritime Dangerous Goods Code

IMO = International Maritime Organization

ISO = International Organization for Standardization

IUCLID = International Uniform Chemical Information Database

IUPAC = International Union of Pure and Applied Chemistry

kg = Kilogram

Kow = Distribution coefficient between n-octanol and water

kPa = KiloPascal (unit of pressure)

LC50 = Concentration required to kill 50% of test organisms

LD50 = Dose required to kill 50% of test organisms

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LEL = Lower Explosive Limit/Lower Explosion Limit

LOAEL = Lowest observed adverse effect level

mg = Milligram

min = Minute(s)

ml = Milliliter

mmHg = Pressure equivalent to 1 mm of mercury (133.3 Pa)

mp = Melting point

MRL = Maximum Residue Limit

MSDS = Material Safety Data Sheet

n.o.s. = Not Otherwise Specified

NIOSH = National Institute for Occupational Safety and Health (US)

NOAEL = No Observed Adverse Effect Level

NOEC = No observed effect concentration

NOEL = No Observable Effect Level

NOx = Oxides of Nitrogen

OECD = Organization for Economic Cooperation and Development

OEL = Occupational Exposure Limits

Pa = Pascal (unit of pressure)

PBT = Persistent, Bioaccumulative or Toxic

pH = -log10 hydrogen ion concentration

pKa = -log10 acid dissociation constant

PNEC = Previsible Non Effect Concentration

POPs = Persistent Organic Pollutants

ppb = Parts per billion

PPE = Personal Protection Equipment

ppm = Parts per million

ppt = Parts per trillion

PVC = Polyvinyl Chloride

QSAR = Quantitative Structure-Activity Relationship

REACH = Registration, Evaluation and Authorization of CHemicals (EU, see NCP)

SI = International System of Units

STEL = Short-Term Exposure Limit

STOT se = Specific Target Organ Toxicity after single exposure

STOT re = Specific Target Organ Toxicity after repeated exposure

tech. = Technical grade

TSCA = Toxic Substances Control Act (US)

 $\mathsf{TWA} = \mathsf{Time}\text{-}\mathsf{Weighted} \; \mathsf{Average}$

vPvB = Very Persistent and Very Bioacccumulative

WHO = World Health Organization = OMS

y = Year(s)

16.3 Key literature references and sources for data

None

Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

No information available.

16.4 Relevant H- and EUH-phrases (Number and full text)

None

16.5 Training advice

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None

16.6 Additional information

None

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

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