



Safety Data Sheet dated 20/4/2022, version 3

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

1.1. Product identifier

Mixture identification:

Trade name: BC COMP. A 15/30

UFI: QCEA-J70D-VS19-N6H5

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

Uses advised against:

Not suitable for "Do-it-yourself".

1.3. Details of the supplier of the safety data sheet

Boldan Oy, Matkuntie 3, 05200 RAJAMÄKI, FINLAND

Competent person responsible for the safety data sheet:

info@boldan.fi

1.4. Emergency telephone number

n. +39 0521-812188 Fax n. +39 0521-812195

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

EC regulation criteria 1272/2008 (CLP):



Warning, Skin Irrit. 2, Causes skin irritation.



Danger, Eye Dam. 1, Causes serious eye damage.



Warning, Skin Sens. 1, May cause an allergic skin reaction.



Aquatic Chronic 2, Toxic to aquatic life with long lasting effects.

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements

Hazard pictograms:



Danger

Hazard statements:

H315 Causes skin irritation.

H318 Causes serious eye damage.

H317 May cause an allergic skin reaction.

H411 Toxic to aquatic life with long lasting effects.

Precautionary statements:

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P264 Wash Thoroughly after handling.

P273 Avoid release to the environment.

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

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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P310 Immediately call a POISON CENTER/doctor/...

P391 Collect spillage.

Special Provisions:

EUH205 Contains epoxy constituents. May produce an allergic reaction.

Contains

reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700)

1,4-bis(2,3 epoxypropoxy)butane

Formaldehyde, oligomeric reac. products with 1-chloro-2,3-epoxypropane, phenol: May produce an allergic reaction.

Special provisions according to Annex XVII of REACH and subsequent amendments:

None

2.3. Other hazards

No PBT, vPvB or endocrine disruptor substances present in concentration $\geq 0.1\%$

Other Hazards:

No other hazards

SECTION 3: Composition/information on ingredients

3.1. Substances

N.A.

3.2. Mixtures

Hazardous components within the meaning of the CLP regulation and related classification:

Qty	Name	Ident. Number	Classification
$\geq 60\% - < 80\%$	2,2'-(propane-2,2-diylbis(4,1-phenyleneoxyethylene))dioxirane	Index number: 603-074-00-8 CAS: 25068-38-6 REACH No.: 01-21194566 19-26-XXXX	 3.3/2 Eye Irrit. 2 H319  3.2/2 Skin Irrit. 2 H315  3.4.2/1 Skin Sens. 1 H317  4.1/C2 Aquatic Chronic 2 H411
$\geq 10\% - < 20\%$	Formaldehyde, oligomeric reac. products with 1-chloro-2,3-epoxypropane, phenol	CAS: 9003-36-5 EC: 701-263-0 REACH No.: 01-21194543 92-40-XXXX	 3.2/2 Skin Irrit. 2 H315  3.4.2/1-1A-1B Skin Sens. 1, 1A, 1B H317  4.1/C2 Aquatic Chronic 2 H411
$\geq 5\% - < 10\%$	1,4-bis(2,3 epoxypropoxy)butane	Index number: 603-072-00-7 CAS: 2425-79-8 EC: 219-371-7 REACH No.: 01-21194940 60-45-XXXX	 3.1/4/Oral Acute Tox. 4 H302  3.1/4/Dermal Acute Tox. 4 H312  3.2/2 Skin Irrit. 2 H315  3.4.2/1 Skin Sens. 1 H317  3.3/1 Eye Dam. 1 H318  3.1/4/Inhal Acute Tox. 4 H332  4.1/C3 Aquatic Chronic 3 H412

SECTION 4: First aid measures

4.1. Description of first aid measures

In case of skin contact:

Immediately take off all contaminated clothing.

Areas of the body that have - or are only even suspected of having - come into contact with the product must be rinsed immediately with plenty of running water and possibly with soap.

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OBTAIN IMMEDIATE MEDICAL ATTENTION.

Wash thoroughly the body (shower or bath).

Remove contaminated clothing immediately and dispose off safely.

After contact with skin, wash immediately with soap and plenty of water.

In case of eyes contact:

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

Protect uninjured eye.

In case of Ingestion:

Do not under any circumstances induce vomiting. OBTAIN A MEDICAL EXAMINATION IMMEDIATELY.

In case of Inhalation:

Remove casualty to fresh air and keep warm and at rest.

4.2. Most important symptoms and effects, both acute and delayed

None

4.3. Indication of any immediate medical attention and special treatment needed

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Treatment:

None

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

CO2 or Dry chemical fire extinguisher.

Extinguishing media which must not be used for safety reasons:

None in particular.

5.2. Special hazards arising from the substance or mixture

Do not inhale explosion and combustion gases.

Burning produces heavy smoke.

5.3. Advice for firefighters

Use suitable breathing apparatus .

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Move undamaged containers from immediate hazard area if it can be done safely.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment.

Remove persons to safety.

See protective measures under point 7 and 8.

6.2. Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

Retain contaminated washing water and dispose it.

In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

Suitable material for taking up: absorbing material, organic, sand

6.3. Methods and material for containment and cleaning up

Wash with plenty of water.

6.4. Reference to other sections

See also section 8 and 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid contact with skin and eyes, inhalation of vapours and mists.

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Don't use empty container before they have been cleaned.
Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.

See also section 8 for recommended protective equipment.

Advice on general occupational hygiene:

Contaminated clothing should be changed before entering eating areas.

Do not eat or drink while working.

7.2. Conditions for safe storage, including any incompatibilities

Store in original containers, dry, tightly closed, in a cool and well-ventilated area.

Avoid contact with skin, eyes and clothing.

Keep away from food, drink and feed.

Incompatible materials:

None in particular.

Instructions as regards storage premises:

Adequately ventilated premises.

7.3. Specific end use(s)

None in particular

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No occupational exposure limit available

DNEL Exposure Limit Values

2,2'-[propane-2,2-diylbis(4,1-phenyleneoxymethylene)]dioxirane - CAS: 25068-38-6

Consumer: 0.75 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects

Consumer: 0.75 mg/kg - Exposure: Human Oral - Frequency: Short Term, systemic effects

Worker Professional: 8.33 mg/kg - Consumer: 3.571 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects

Worker Professional: 8.33 mg/kg - Consumer: 3.571 mg/kg - Exposure: Human Dermal - Frequency: Short Term, systemic effects

Worker Professional: 12.25 mg/m³ - Exposure: Human Inhalation - Frequency: Short Term, systemic effects

Formaldehyde, oligomeric reac. products with 1-chloro-2,3-epoxypropane, phenol - CAS: 9003-36-5

Worker Professional: 8.3 04 - Exposure: Human Dermal - Frequency: Short Term, local effects

Worker Professional: 104.15 mg/kg bw/d - Exposure: Human Dermal - Frequency: Long Term, systemic effects

Worker Professional: 29.39 mg/m³ - Consumer: 8.7 - Exposure: Human Inhalation - Frequency: Long Term, systemic effects

Consumer: 62.5 mg/kg bw/d - Exposure: Human Dermal - Frequency: Long Term, systemic effects

Consumer: 6.25 - Exposure: Human Oral - Frequency: Long Term, systemic effects

PNEC Exposure Limit Values

2,2'-[propane-2,2-diylbis(4,1-phenyleneoxymethylene)]dioxirane - CAS: 25068-38-6

Target: Fresh Water - Value: 3 mg/l

Target: Marine water - Value: 0.3 mg/l

Target: Freshwater sediments - Value: 0.5 mg/l

Target: Marine water sediments - Value: 0.5 mg/l

Formaldehyde, oligomeric reac. products with 1-chloro-2,3-epoxypropane, phenol - CAS: 9003-36-5

Target: Fresh Water - Value: 0.003 mg/l

Target: Marine water - Value: 0.0003 mg/l

Target: Freshwater sediments - Value: 0.294 mg/kg/d

Target: Marine water sediments - Value: 0.0294 mg/kg/d

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Target: 08 - Value: 0.237 mg/kg/d

8.2. Exposure controls

Eye protection:

Wear protective goggles (ref. Standard EN 166).

Protection for skin:

Safety shoes.

Wear work clothes with long sleeves and safety footwear for professional use of category I (REF. Dir. 89/686/EEC and EN 344).

Protection for hands:

Protect your hands with work gloves (ref. Directive 89/686 / EEC and its amendments and EN 374/2003)

Respiratory protection:

Use adequate protective respiratory equipment. (Ref. Dir. 89/686 / EEC, as amended - UNI PROTECTED / 1998 - UNI EN 529/2006)

Thermal Hazards:

None

Environmental exposure controls:

Prevent from entering sewers, basements or any place where its accumulation can be dangerous.

Appropriate engineering controls:

None

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties	Value	Method:	Notes:
Physical state:	Liquid	--	--
Colour:	pale yellow	--	--
Odour:	low	--	--
Melting point/freezing point:	Not Relevant	--	--
Boiling point or initial boiling point and boiling range:	> 200°C	--	--
Flammability:	Not Relevant	--	--
Lower and upper explosion limit:	Not Relevant	--	--
Flash point:	150 ° C	--	--
Auto-ignition temperature:	Not Relevant	--	--
Decomposition temperature:	Not Relevant	--	--
pH:	Not Relevant	--	--
Kinematic viscosity:	Not Relevant	--	--
Solubility in water:	Not Relevant	--	--
Solubility in oil:	Not Relevant	--	--
Partition coefficient n-octanol/water (log value):	Not Relevant	--	--
Vapour pressure:	Not Relevant	--	--
Density and/or relative density:	1.15 g/ml	--	--
Relative vapour density:	Not Relevant	--	--

Particle characteristics:

Particle size:	Not Relevant	--	--
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9.2. Other information

No other relevant information

SECTION 10: Stability and reactivity

- 10.1. Reactivity
Not responsive
- 10.2. Chemical stability
The product is stable in normal conditions of use and storage.
- 10.3. Possibility of hazardous reactions
None
- 10.4. Conditions to avoid
Stable under normal conditions.
- 10.5. Incompatible materials
None in particular.
- 10.6. Hazardous decomposition products
None.

SECTION 11: Toxicological information

- 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008
Toxicological information of the product:
N.A.
Toxicological information of the main substances found in the product:
2,2'-[propane-2,2-diylbis(4,1-phenyleneoxymethylene)]dioxirane - CAS: 25068-38-6
 - a) acute toxicity:
Test: LD50 - Route: Oral - Species: Rat = 30.000 mg/kg
 - i) STOT-repeated exposure:
Test: NOAEC - Route: Oral - Species: Rat = 50 mg/kg
Test: NOAEC - Route: Skin - Species: Rat = 100 mg/kgFormaldehyde, oligomeric reac. products with 1-chloro-2,3-epoxypropane, phenol - CAS: 9003-36-5
 - a) acute toxicity:
Test: LD50 - Route: Oral - Species: Rat > 2.000 mg/kg
Test: LD50 - Route: Skin - Species: Rat > 2.000 mg/kg
 - b) skin corrosion/irritation:
Test: Skin Irritant - Route: Skin - Species: Rabbit 0.7 - Duration: 4h1,4-bis(2,3 epoxypropoxy)butane - CAS: 2425-79-8
 - a) acute toxicity:
Test: LD50 - Route: Oral - Species: Rat = 1.882 mg/kg
Test: LD50 - Route: Skin - Species: Rat > 2.150 mg/kg

If not differently specified, the information required in Regulation (EU)2020/878 listed below must be considered as N.A.:

- a) acute toxicity;
- b) skin corrosion/irritation;
- c) serious eye damage/irritation;
- d) respiratory or skin sensitisation;
- e) germ cell mutagenicity;
- f) carcinogenicity;
- g) reproductive toxicity;
- h) STOT-single exposure;
- i) STOT-repeated exposure;
- j) aspiration hazard.

11.2. Information on other hazards

Endocrine disrupting properties:

No endocrine disruptor substances present in concentration $\geq 0.1\%$

SECTION 12: Ecological information**12.1. Toxicity**

Adopt good working practices, so that the product is not released into the environment.

1,4-bis(2,3 epoxypropoxy)butane - CAS: 2425-79-8

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish = 43 mg/l - Duration h: 48

Endpoint: EC50 - Species: Daphnia = 75 mg/l - Duration h: 24

12.2. Persistence and degradability

None

RP 2145

Biodegradability: No data available.

2,2'-[propane-2,2-diylbis(4,1-phenyleneoxymethylene)]dioxirane - CAS: 25068-38-6

Biodegradability: not biodegradable

Formaldehyde, oligomeric reac. products with 1-chloro-2,3-epoxypropane, phenol - CAS: 9003-36-5

Biodegradability: Non-readily biodegradable

1,4-bis(2,3 epoxypropoxy)butane - CAS: 2425-79-8

Biodegradability: No data available.

12.3. Bioaccumulative potential

RP 2145

Bioaccumulation: Information not available

2,2'-[propane-2,2-diylbis(4,1-phenyleneoxymethylene)]dioxirane - CAS: 25068-38-6

Bioaccumulation: Information not available

Formaldehyde, oligomeric reac. products with 1-chloro-2,3-epoxypropane, phenol - CAS: 9003-36-5

Bioaccumulation: Potentially bioaccumulative

1,4-bis(2,3 epoxypropoxy)butane - CAS: 2425-79-8

Bioaccumulation: Information not available

12.4. Mobility in soil

RP 2145

Mobility in soil: No data available

2,2'-[propane-2,2-diylbis(4,1-phenyleneoxymethylene)]dioxirane - CAS: 25068-38-6

Mobility in soil: No data available

Formaldehyde, oligomeric reac. products with 1-chloro-2,3-epoxypropane, phenol - CAS: 9003-36-5

Mobility in soil: No data available

1,4-bis(2,3 epoxypropoxy)butane - CAS: 2425-79-8

Mobility in soil: No data available

12.5. Results of PBT and vPvB assessment

vPvB Substances: None - PBT Substances: None

12.6. Endocrine disrupting properties

No endocrine disruptor substances present in concentration $\geq 0.1\%$

12.7. Other adverse effects

None

SECTION 13: Disposal considerations**13.1. Waste treatment methods**

Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions. In so doing, comply with the local and national regulations currently in force.

Additional disposal information:

Dispose of contaminated waste, surplus and packaging in accordance with national and regional regulations.

SECTION 14: Transport information**14.1. UN number or ID number**

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- ADR-UN number: 3082
IATA-Un number: 3082
IMDG-Un number: 3082
- 14.2. UN proper shipping name
ADR-Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxy resin)
IATA-Technical name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxy resin)
IMDG-Technical name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxy resin)
- 14.3. Transport hazard class(es)
ADR-Class: 9
ADR-Label: 9
ADR - Hazard identification number: 90
IATA-Class: 9
IATA-Label: 9
IMDG-Class: 9
- 14.4. Packing group
ADR-Packing Group: III
IATA-Packing group: III
IMDG-Packing group: III
- 14.5. Environmental hazards
Marine pollutant: Marine pollutant
IMDG-EMS: F-S, S-F
- 14.6. Special precautions for user
ADR-Transport category (Tunnel restriction code): E
Rail (RID): 3082
IMDG-Technical name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxy resin)
- 14.7. Maritime transport in bulk according to IMO instruments
N.A.

SECTION 15: Regulatory information

- 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
Dir. 98/24/EC (Risks related to chemical agents at work)
Dir. 2000/39/EC (Occupational exposure limit values)
Regulation (EC) n. 1907/2006 (REACH)
Regulation (EC) n. 1272/2008 (CLP)
Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013
Regulation (EU) n. 2020/878
Regulation (EU) n. 286/2011 (ATP 2 CLP)
Regulation (EU) n. 618/2012 (ATP 3 CLP)
Regulation (EU) n. 487/2013 (ATP 4 CLP)
Regulation (EU) n. 944/2013 (ATP 5 CLP)
Regulation (EU) n. 605/2014 (ATP 6 CLP)
Regulation (EU) n. 2015/1221 (ATP 7 CLP)
Regulation (EU) n. 2016/918 (ATP 8 CLP)
Regulation (EU) n. 2016/1179 (ATP 9 CLP)
Regulation (EU) n. 2017/776 (ATP 10 CLP)
Regulation (EU) n. 2018/669 (ATP 11 CLP)
Regulation (EU) n. 2018/1480 (ATP 13 CLP)
Regulation (EU) n. 2019/521 (ATP 12 CLP)
Regulation (EU) n. 2020/217 (ATP 14 CLP)
Regulation (EU) n. 2020/1182 (ATP 15 CLP)
Regulation (EU) n. 2021/643 (ATP 16 CLP)

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Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:

None

Where applicable, refer to the following regulatory provisions :

Directive 2012/18/EU (Seveso III)

Regulation (EC) nr 648/2004 (detergents).

Dir. 2004/42/EC (VOC directive)

Provisions related to directive EU 2012/18 (Seveso III):

Seveso III category according to Annex 1, part 1

Product belongs to category: E2

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out for the mixture.

SECTION 16: Other information

Text of phrases referred to under heading 3:

H319 Causes serious eye irritation.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H411 Toxic to aquatic life with long lasting effects.

H302 Harmful if swallowed.

H312 Harmful in contact with skin.

H318 Causes serious eye damage.

H332 Harmful if inhaled.

H412 Harmful to aquatic life with long lasting effects.

Hazard class and hazard category	Code	Description
Acute Tox. 4	3.1/4/Dermal	Acute toxicity (dermal), Category 4
Acute Tox. 4	3.1/4/Inhal	Acute toxicity (inhalation), Category 4
Acute Tox. 4	3.1/4/Oral	Acute toxicity (oral), Category 4
Skin Irrit. 2	3.2/2	Skin irritation, Category 2
Eye Dam. 1	3.3/1	Serious eye damage, Category 1
Eye Irrit. 2	3.3/2	Eye irritation, Category 2
Skin Sens. 1	3.4.2/1	Skin Sensitisation, Category 1
Skin Sens. 1,1A,1B	3.4.2/1-1A-1B	Skin Sensitisation, Category 1,1A,1B
Aquatic Chronic 2	4.1/C2	Chronic (long term) aquatic hazard, category 2
Aquatic Chronic 3	4.1/C3	Chronic (long term) aquatic hazard, category 3

Paragraphs modified from the previous revision:

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

SECTION 3: Composition/information on ingredients

SECTION 8: Exposure controls/personal protection

SECTION 11: Toxicological information

SECTION 12: Ecological information

SECTION 14: Transport information

SECTION 15: Regulatory information

SECTION 16: Other information

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Classification according to Regulation (EC) Nr.	Classification procedure
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1272/2008	
Skin Irrit. 2, H315	Calculation method
Eye Dam. 1, H318	Calculation method
Skin Sens. 1, H317	Calculation method
Aquatic Chronic 2, H411	Calculation method

This document was prepared by a competent person who has received appropriate training.

Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre,
Commission of the European Communities
SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van
Nostrand Reinold

The information contained herein is based on our state of knowledge at the above-specified date.
It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to
the specific use intended.

This MSDS cancels and replaces any preceding release.

ADR:	European Agreement concerning the International Carriage of Dangerous Goods by Road.
ATE:	Acute Toxicity Estimate
ATEmix:	Acute toxicity Estimate (Mixtures)
CAS:	Chemical Abstracts Service (division of the American Chemical Society).
CLP:	Classification, Labeling, Packaging.
DNEL:	Derived No Effect Level.
EINECS:	European Inventory of Existing Commercial Chemical Substances.
GefStoffVO:	Ordinance on Hazardous Substances, Germany.
GHS:	Globally Harmonized System of Classification and Labeling of Chemicals.
IATA:	International Air Transport Association.
IATA-DGR:	Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
ICAO:	International Civil Aviation Organization.
ICAO-TI:	Technical Instructions by the "International Civil Aviation Organization" (ICAO).
IMDG:	International Maritime Code for Dangerous Goods.
INCI:	International Nomenclature of Cosmetic Ingredients.
KSt:	Explosion coefficient.
LC50:	Lethal concentration, for 50 percent of test population.
LD50:	Lethal dose, for 50 percent of test population.
PNEC:	Predicted No Effect Concentration.
RID:	Regulation Concerning the International Transport of Dangerous Goods by Rail.
STEL:	Short Term Exposure limit.
STOT:	Specific Target Organ Toxicity.
TLV:	Threshold Limiting Value.
TWA:	Time-weighted average
WGK:	German Water Hazard Class.