

HI Card, JEDEC, 5,10,60% RH, CDF, G/B

Page 1(12)

Substance key: SC0000106744

Revision Date: 06.04.2023

Version : 3 - 1 / EU

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

1.1. Product identifier

Trade name

HI Card, JEDEC, 5,10,60% RH, CDF, G/B

Material number: 248745

Chemical nature: cobalt dibromide on cardboard

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

Relevant identified uses of the substance or mixture

Type of use : Indicator for air humidity

1.3. Details of the supplier of the safety data sheet

Identification of the company

Clariant Produkte (Deutschland) GmbH
Ostenriederstrasse 15
85368 Moosburg
Telephone no. : +49 (0)8761/82-0

Information about the substance/mixture

BU Adsorbents & Additives
Product Stewardship
e-mail: SDS.Europe@clariant.com

1.4. Emergency telephone number

00800-5121 5121 (24 h)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Respiratory sensitisation, Category 1	H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin sensitisation, Category 1	H317: May cause an allergic skin reaction.
Carcinogenicity, Category 1B	H350: May cause cancer.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :



Signal word : Danger

Hazard statements : H317 May cause an allergic skin reaction.
H334 May cause allergy or asthma symptoms or breathing

HI Card, JEDEC, 5,10,60% RH, CDF, G/B

Page 2(12)

Substance key: SC0000106744

Revision Date: 06.04.2023

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difficulties if inhaled.
H350 May cause cancer.

Precautionary statements : **Prevention:**
P201 Obtain special instructions before use.
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection.
P284 Wear respiratory protection.
Response:
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P308 + P313 IF exposed or concerned: Get medical advice/ attention.

Hazardous components which must be listed on the label:

Cobalt dibromide

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

No hazards to be specially mentioned.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
Cobalt dibromide	7789-43-7 232-166-7	Acute Tox. 4; H302 Acute Tox. 4; H332 Acute Tox. 4; H312 Skin Irrit. 2; H315 Eye Irrit. 2; H319 Resp. Sens. 1; H334 Skin Sens. 1; H317 Carc. 1B; H350 STOT SE 3; H335 (Respiratory system)	>= 1 - < 10

For explanation of abbreviations see section 16.

HI Card, JEDEC, 5,10,60% RH, CDF, G/B

Page 3(12)

Substance key: SC0000106744

Revision Date: 06.04.2023

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SECTION 4: First aid measures

4.1 Description of first aid measures

- General advice : Remove/ Take off immediately all contaminated clothing.
Get medical advice/ attention if you feel unwell.
- If inhaled : Move to fresh air.
- In case of skin contact : Wash off immediately with soap and plenty of water.
- In case of eye contact : Rinse immediately with plenty of water, also under the eyelids,
for at least 15 minutes.
- If swallowed : Rinse mouth.
Call a physician immediately.
Do not induce vomiting without medical advice.
Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

- Symptoms : There are no acute and delayed symptoms and effects
observed.
- Risks : No information available.

4.3 Indication of any immediate medical attention and special treatment needed

- Treatment : Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media : Dry powder
Foam
Carbon dioxide (CO₂)

5.2 Special hazards arising from the substance or mixture

- Specific hazards during firefighting : In case of fire can be formed: breathable cobalt/cobalt oxide
dust
- None known.

5.3 Advice for firefighters

- Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.
- Further information : Standard procedure for chemical fires.

HI Card, JEDEC, 5,10,60% RH, CDF, G/B

Page 4(12)

Substance key: SC0000106744

Revision Date: 06.04.2023

Version : 3 - 1 / EU

Date of printing : 16.10.2025

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Ensure adequate ventilation.
Avoid dust formation.
Use personal protective equipment.
Avoid contact with skin, eyes and clothing.
Avoid dust formation.

6.2 Environmental precautions

Environmental precautions : Do not flush into surface water or sanitary sewer system.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Sweep up or vacuum up spillage and collect in suitable container for disposal.

6.4 Reference to other sections

For personal protection see section 8., For disposal considerations see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on protection against fire and explosion : Keep away from heat and sources of ignition.

Hygiene measures : Take off immediately all contaminated clothing.

7.2 Conditions for safe storage, including any incompatibilities

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

Further information on storage conditions : Keep in a dry place.

Advice on common storage : No materials to be especially mentioned.

Further information on storage stability : Stable under recommended storage conditions.

7.3 Specific end use(s)

Specific use(s) : Not relevant

HI Card, JEDEC, 5,10,60% RH, CDF, G/B

Page 5(12)

Substance key: SC0000106744

Revision Date: 06.04.2023

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SECTION 8: Exposure controls/personal protection

8.1 Control parameters

8.2 Exposure controls

Engineering measures

none

Personal protective equipment

Eye/face protection : not required

Hand protection

Remarks : Chemical-resistant protective gloves according to EN 374, EN 388, EN 420.

Skin and body protection : not required

Respiratory protection : not required

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state : Plates

Odour : none

Melting point : Not applicable

Boiling point : not determined
(for a component of this mixture)

Upper explosion limit / upper flammability limit : Not applicable

Lower explosion limit / Lower flammability limit : Not applicable

Flash point : Not applicable

Auto-ignition temperature : Not applicable

Decomposition temperature : no data available

pH : 4,5 - 6

Viscosity

Viscosity, kinematic : Not applicable

Solubility(ies)

Water solubility : partly soluble

HI Card, JEDEC, 5,10,60% RH, CDF, G/B

Page 6(12)

Substance key: SC0000106744

Revision Date: 06.04.2023

Version : 3 - 1 / EU

Date of printing : 16.10.2025

Partition coefficient: n-octanol/water	:	Not applicable
Vapour pressure	:	Not applicable
Density	:	no data available
Relative vapour density	:	Not applicable
Particle characteristics Particle size	:	no data available

9.2 Other information

Metal corrosion rate	:	Not applicable
Evaporation rate	:	Not applicable
Surface tension	:	no data available

SECTION 10: Stability and reactivity

10.1 Reactivity

Stable under recommended storage conditions.

10.2 Chemical stability

No decomposition if stored and applied as directed.

10.3 Possibility of hazardous reactions

Hazardous reactions : None known.

10.4 Conditions to avoid

Conditions to avoid : Avoid dust formation.
Keep away from heat.

10.5 Incompatible materials

Materials to avoid : Acids and bases

10.6 Hazardous decomposition products

No decomposition if stored and applied as directed.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Components:

Cobalt dibromide:

Acute oral toxicity : Assessment: The component/mixture is moderately toxic after single ingestion.

HI Card, JEDEC, 5,10,60% RH, CDF, G/B

Page 7(12)

Substance key: SC0000106744

Revision Date: 06.04.2023

Version : 3 - 1 / EU

Date of printing : 16.10.2025

Acute inhalation toxicity : Assessment: The component/mixture is moderately toxic after short term inhalation.

Acute dermal toxicity : Assessment: The component/mixture is moderately toxic after single contact with skin.

Skin corrosion/irritation

Product:

Remarks : no data available

Components:

Cobalt dibromide:

Result : Irritating to skin.

Serious eye damage/eye irritation

Product:

Remarks : no data available

Components:

Cobalt dibromide:

Result : Irritating to eyes.

Respiratory or skin sensitisation

Product:

Remarks : no data available

Components:

Cobalt dibromide:

Result : May cause sensitisation by skin contact.

Result : May cause sensitisation by inhalation.

Carcinogenicity

Components:

Cobalt dibromide:

Carcinogenicity - Assessment : Possible human carcinogen

STOT - single exposure

Components:

Cobalt dibromide:

Assessment : May cause respiratory irritation.

HI Card, JEDEC, 5,10,60% RH, CDF, G/B

Page 8(12)

Substance key: SC0000106744

Revision Date: 06.04.2023

Version : 3 - 1 / EU

Date of printing : 16.10.2025

11.2 Information on other hazards

Endocrine disrupting properties

Product:

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Further information

Product:

Remarks : No data is available on the product itself.
Handle in accordance with good industrial hygiene and safety practice.

SECTION 12: Ecological information

12.1 Toxicity

Product:

Toxicity to fish : Remarks: no data available

Toxicity to daphnia and other aquatic invertebrates : Remarks: not tested.

Toxicity to algae/aquatic plants : Remarks: not tested.

Toxicity to fish (Chronic toxicity) : Remarks: not tested.

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : Remarks: not tested.

12.2 Persistence and degradability

Product:

Biodegradability : Remarks: no data available

Photodegradation : Remarks: no data available

12.3 Bioaccumulative potential

Product:

Bioaccumulation : Remarks: no data available

HI Card, JEDEC, 5,10,60% RH, CDF, G/B

Page 9(12)

Substance key: SC0000106744

Revision Date: 06.04.2023

Version : 3 - 1 / EU

Date of printing : 16.10.2025

12.4 Mobility in soil

Product:

Distribution among environmental compartments : Remarks: no data available

12.5 Results of PBT and vPvB assessment

Product:

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Endocrine disrupting properties

Product:

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7 Other adverse effects

Product:

Additional ecological information : obviously hazardous to water

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : Can be landfilled, when in compliance with local regulations. Contact waste disposal services.

Contaminated packaging : Dispose of as unused product.

SECTION 14: Transport information

Section 14.1. to 14.5.

ADR	not restricted
ADN	not restricted
RID	not restricted
IATA	not restricted
IMDG	not restricted

14.6. Special precautions for user

See sections 6 to 8 of this Safety Data Sheet.

HI Card, JEDEC, 5,10,60% RH, CDF, G/B

Page 10(12)

Substance key: SC0000106744

Revision Date: 06.04.2023

Version : 3 - 1 / EU

Date of printing : 16.10.2025

14.7. Maritime transport in bulk according to IMO instruments

No transport as bulk according IBC - Code.

SECTION 15: Regulatory information

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

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII)	: Not applicable
REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).	: Not applicable
Regulation (EC) No 1005/2009 on substances that deplete the ozone layer	: Not applicable
Regulation (EU) 2019/1021 on persistent organic pollutants (recast)	: Not applicable
Council Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors	: Neither banned nor restricted
Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals	: Not applicable
REACH - List of substances subject to authorisation (Annex XIV)	: Not applicable

15.2 Chemical safety assessment

No Chemical Safety Assessment (CSA) is yet available for the substance, or for the component substances, contained in this product.

SECTION 16: Other information

Full text of H-Statements

H302	: Harmful if swallowed.
H312	: Harmful in contact with skin.
H315	: Causes skin irritation.
H317	: May cause an allergic skin reaction.
H319	: Causes serious eye irritation.
H332	: Harmful if inhaled.
H334	: May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	: May cause respiratory irritation.
H350	: May cause cancer.

Full text of other abbreviations

Acute Tox.	:	Acute toxicity
Carc.	:	Carcinogenicity
Eye Irrit.	:	Eye irritation
Resp. Sens.	:	Respiratory sensitisation
Skin Irrit.	:	Skin irritation
Skin Sens.	:	Skin sensitisation
STOT SE	:	Specific target organ toxicity - single exposure

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Further information

Classification of the mixture:

Resp. Sens. 1	H334
Skin Sens. 1	H317
Carc. 1B	H350

Classification procedure:

Calculation method
Calculation method
Calculation method

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SAFETY DATA SHEET
according to Regulation (EC) No. 1907/2006



HI Card, JEDEC, 5,10,60% RH, CDF, G/B

Page 12(12)

Substance key: SC0000106744

Revision Date: 06.04.2023

Version : 3 - 1 / EU

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