Safety data sheet

according to Regulation (EC) No 1907/2006, Article 31

Printing date: 09.01.2025 Version No: 9.00 (replaces version 8.00) Revision: 09.01.2025

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

1.1 Product identifier

Trade name: Valve Regulated Lead-acid Battery (VRLA Battery)

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

Application of the substance / the preparation: Batteries

Uses advised against: No further relevant information available.

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:
CSB Energy Technology Co., Ltd.
No. 16 Gongye W. Rd.
Erzhen Village, Guantian District
Tainan City 72048
Taiwan (R.O.C.)
Phone: +886-6-698-7600
Fax: +886-6-698-7605
E-mail: service@csb-battery.com.tw

1.4 Emergency telephone number:

Taiwan Office: +886-2-2880-5600 (Business hour in Taiwan)
Europe Office: +31 (0) 180 418 140 (Keurmeesterstraat 28-30, 2984 BA Ridderkerk, The Netherlands)
Chemtrec: (800) 424-9300 / +1 703 527-3887
NVIC: +31 (0)88 755 8000: Only for the purpose of informing medical personnel in case of acute intoxications

* SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Acute Tox. 4	H302	Harmful if swallowed.
Acute Tox. 4	H332	Harmful if inhaled.
Skin Corr. 1A	H314	Causes severe skin burns and eye damage.
Eye Dam. 1	H318	Causes serious eye damage.
Carc. 1A	H350i	May cause cancer by inhalation. Route of exposure: Inhalation.
Repr. 1A	H360FD-H362	May damage fertility. May damage the unborn child. May cause harm to breast-fed children.
STOT RE 1	H372	Causes damage to the central nervous system, the kidneys and the blood through prolonged or repeated exposure. Route of exposure: Oral, Inhalation.
Aquatic Acute 1	H400	Very toxic to aquatic life.
Aquatic Chronic 1	H410	Very toxic to aquatic life with long lasting effects.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008
The product is classified and labelled according to the CLP regulation.
Hazard pictograms

GHS05 GHS07 GHS08 GHS09

Signal word Danger

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Hazard-determining components of labelling:
lead dioxide
sulphuric acid
lead
Lead oxide sulfate (Pb5O4(SO4))

Hazard statements

H302+H332 Harmful if swallowed or if inhaled.
H314 Causes severe skin burns and eye damage.
H350i May cause cancer by inhalation. Route of exposure: Inhalation.
H360FD-H362 May damage fertility. May damage the unborn child. May cause harm to breast-fed children.
H372 Causes damage to the central nervous system, the kidneys and the blood through prolonged or repeated exposure. Route of exposure: Oral, Inhalation.
H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements

P260 Do not breathe dusts or mists.
P263 Avoid contact during pregnancy and while nursing.
P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER/doctor.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Additional information:
Product contains: Restricted explosives precursors. Making available, introduction, possession and use according to Regulation (EU) 2019/1148, Article 5 (1) and (3).
Restricted to professional users.
EUH201 Contains lead. Should not be used on surfaces liable to be chewed or sucked by children.

2.3 Other hazards

Results of PBT and vPvB assessment

PBT: This product does not contain any substances ≥ 0.1% that have been assessed as PBT.
vPvB: This product does not contain any substances ≥ 0.1% that have been assessed as vPvB.

Determination of endocrine-disrupting properties		
CAS: 79-94-7	tetrabromobisphenol-A	List II

* SECTION 3: Composition/information on ingredients

3.2 Mixtures

Description:		
CAS: 9003-56-9	ABS	5 - 9%

Dangerous components:		
CAS: 7439-92-1 EC number: 231-100-4 Index number: 082-014-00-7	lead Repr. 1A, H360FD-H362; STOT RE 1, H372; Aquatic Chronic 1, H410 (M=10)	40 - 60%
CAS: 1309-60-0 EC number: 215-174-5 Index number: 082-001-00-6	lead dioxide Repr. 1A, H360Df; STOT RE 2, H373; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Acute Tox. 4, H302; Acute Tox. 4, H332, EUH201 Specific concentration limits: Repr. 2; H361f: C ≥ 2.5 % STOT RE 2; H373: C ≥ 0.5 %	15 - 30%

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CAS: 7664-93-9 EC number: 231-639-5 Index number: 016-020-00-8	sulphuric acid Skin Corr. 1A, H314 Specific concentration limits: Skin Corr. 1A; H314: C ≥ 15 % Skin Irrit. 2; H315: 5 % ≤ C < 15 % Eye Irrit. 2; H319: 5 % ≤ C < 15 %	20 - 30%
CAS: 12065-90-6 EC number: 235-067-7	Lead oxide sulfate (Pb5O4(SO4)) Carc. 2, H351; Repr. 1A, H360Df-H362; STOT RE 1, H372; Aquatic Acute 1, H400 (M=10); Aquatic Chronic 1, H410 (M=1); Acute Tox. 4, H302; Acute Tox. 4, H332, EUH201 Specific concentration limits: Repr. 2; H361f: C ≥ 2.5 % STOT RE 1; H372: C ≥ 0.5 %	5 - 10%
CAS: 7446-14-2 EC number: 231-198-9 Index number: 082-001-00-6	lead sulphate Repr. 1A, H360Df; STOT RE 2, H373; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Acute Tox. 4, H302; Acute Tox. 4, H332, EUH201 Specific concentration limits: Repr. 2; H361f: C ≥ 2.5 % STOT RE 2; H373: C ≥ 0.5 %	1 - 10%
CAS: 79-94-7 EC number: 201-236-9 Index number: 604-074-00-0 Reg.nr.: 01-2119538800-42-XXXX	tetrabromobisphenol-A Carc. 2, H351; Aquatic Acute 1, H400; Aquatic Chronic 1, H410	< 3%
CAS: 65997-17-3 EC number: 266-046-0	Fibrous Glass Carc. 1A, H350i	1 - 2%

SVHC	
CAS: 7439-92-1	lead
CAS: 12065-90-6	Lead oxide sulfate (Pb5O4(SO4))
CAS: 79-94-7	tetrabromobisphenol-A

Additional information: For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information:
Take affected persons out of danger area and lay down.
Immediately remove any clothing soiled by the product.
In case of irregular breathing or respiratory arrest provide artificial respiration.

After inhalation:
Supply fresh air or oxygen; call for doctor.
In case of unconsciousness place patient stably in side position for transportation.

After skin contact:
Immediately rinse with water.
Call a doctor immediately.

After eye contact:
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Call a doctor immediately.

After swallowing:
Rinse out mouth and then drink plenty of water.
Do NOT induce vomiting.
Call for a doctor immediately.

4.2 Most important symptoms and effects, both acute and delayed
No further relevant information available.

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4.3 Indication of any immediate medical attention and special treatment needed
No further relevant information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media
Suitable extinguishing agents:
CO_2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
Use fire extinguishing methods suitable to surrounding conditions.
For safety reasons unsuitable extinguishing agents: Water with full jet
5.2 Special hazards arising from the substance or mixture
There is a possibility of explosion of the product by heat.
Formation of toxic gases is possible during heating or in case of fire.
In case of fire, the following can be released:
Carbon monoxide
Carbon dioxide
Sulphur oxides (SOx)
5.3 Advice for firefighters
Protective equipment: Wear self-contained respiratory protective device.
Additional information
Cool endangered receptacles with water spray.
Collect contaminated fire fighting water separately. It must not enter the sewage system.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Ensure adequate ventilation.
Wear protective clothing.
Do not touch or walk through the leakage.
Avoid formation of dust.
Keep away from ignition sources.
6.2 Environmental precautions: Do not allow to enter sewers/ surface or ground water.
6.3 Methods and material for containment and cleaning up:
Absorb spillage with dry earth, sand or other fire retardant material or covered by, put into sealed container for waste disposal. And then, neutralize the spillage with sodium bicarbonate or slaked lime, and wash off with plenty of water.
Use neutralising agent.
Pick up mechanically.
Dispose of the material collected according to regulations.
6.4 Reference to other sections
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

7.1 Precautions for safe handling
Prevent formation of dust.
Do not dismantle or modify the product.
Do not do short-circuit between the terminals.
Any unavoidable deposit of dust must be regularly removed.
Ensure good ventilation/exhaustion at the workplace.
Information about fire and explosion protection:
Dust can combine with air to form an explosive mixture.
Hydrogen emission will occur during charging which will form explosive air mixture.
Keep ignition sources away - Do not smoke.

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Protect against electrostatic charges.

7.2 Conditions for safe storage, including any incompatibilities
Storage:
Requirements to be met by storerooms and receptacles: Store only in the original receptacle.
Information about storage in one common storage facility: Store away from oxidising agents.
Further information about storage conditions: Store in cool, dry conditions in well sealed receptacles.

7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace:	
CAS: 7439-92-1 lead	
OEL (Ireland)	Long-term value: 0.15 mg/m³ Repr1A, BOELV
BOELV (EU)	Long-term value: 0.15 mg/m³ as Pb
CAS: 1309-60-0 lead dioxide	
OEL (Ireland)	Long-term value: 0.15 mg/m³ Repr1A, BOELV
BOELV (EU)	Long-term value: 0.15 mg/m³ as Pb
CAS: 7664-93-9 sulphuric acid	
OEL (Ireland)	Long-term value: 0.05 mg/m³ IOELV, thoracic fraction
IOELV (EU)	Long-term value: 0.05 mg/m³
CAS: 7446-14-2 lead sulphate	
OEL (Ireland)	Long-term value: 0.15 mg/m³ Repr1A, BOELV
BOELV (EU)	Long-term value: 0.15 mg/m³ as Pb

DNELs		
CAS: 79-94-7 tetrabromobisphenol-A		
Oral	DNEL(long/systemic)	2.5 mg/kg bw/day (Consumer)
Dermal	DNEL(long/systemic)	125 mg/kg bw/day (Consumer)
		250 mg/kg bw/day (Workers (Industrial/Professional))
Inhalative	DNEL(long/systemic)	4.3 mg/m3 (Consumer)
		17.6 mg/m3 (Workers (Industrial/Professional))

PNECs	
CAS: 7439-92-1 lead	
PNEC(aqua)	0.0024 mg/L (freshwater)
	0.0033 mg/L (marine water)
PNEC(STP)	0.1 mg/L (sewage treatment plant)
PNEC(sediment)	186 mg/kg sedi. dw (freshwater)
	168 mg/kg sedi. dw (marine water)
PNEC(soil)	212 mg/kg soil dw (soil)
PNEC(oral)	10.9 kg/kg food (food)

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CAS: 12065-90-6 Lead oxide sulfate (Pb5O4(SO4))	
PNEC(aqua)	0.0024 mg/L (freshwater)
	0.0033 mg/L (marine water)
PNEC(STP)	0.1 mg/L (sewage treatment plant)
PNEC(sediment)	186 mg/kg sedi. dw (freshwater)
	168 mg/kg sedi. dw (marine water)
PNEC(soil)	212 mg/kg soil dw (soil)
PNEC(oral)	10.9 mg/kg food (food)
CAS: 79-94-7 tetrabromobisphenol-A	
PNEC(aqua)	0.016 mg/L (freshwater)
	0.00034 mg/L (marine water)
PNEC(STP)	1.5 mg/L (sewage treatment plant)
PNEC(sediment)	9 mg/kg sedi. dw (freshwater)
	1.8 mg/kg sedi. dw (marine water)
PNEC(soil)	0.031 mg/kg soil dw (soil)
PNEC(oral)	222.22 mg/kg food (food)

8.2 Exposure controls

Appropriate engineering controls No further data; see section 7.

Individual protection measures, such as personal protective equipment

General protective and hygienic measures:

Do not eat, drink, smoke or sniff while working.
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Store protective clothing separately.
Do not inhale gases / fumes / aerosols.
Avoid contact with the eyes and skin.
The usual precautionary measures are to be adhered to when handling chemicals.

Respiratory protection:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Hand protection

Protective gloves

Only use chemical-protective gloves with CE-labelling of category III.
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

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/face protection Safety glasses

Body protection: Protective work clothing

Environmental exposure controls No further relevant information available.

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SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

General Information	
Physical state	Solid
Form:	Solid
Colour:	Not determined.
Odour:	Not determined.
Odour threshold:	Not determined.
Melting point/freezing point:	Not determined.
Boiling point or initial boiling point and boiling range	Not applicable.
Flammability	Not determined.
Lower and upper explosion limit	
Lower:	4 Vol % Not applicable.
Upper:	75 Vol % Not applicable.
Flash point:	Non-flammable.
Auto-ignition temperature:	Not combustible.
Decomposition temperature:	Not determined.
pH at 20 °C	≤ 1
Viscosity:	
Kinematic viscosity	Not applicable.
Dynamic:	Not applicable.
Solubility	
water:	Insoluble.
Partition coefficient n-octanol/water (log value)	

79-94-7	tetrabromobisphenol-A	5.90 log Pow (25 °C, EPA OPPTS 830.7560)

Vapour pressure:	Not applicable.
Density and/or relative density	
Density:	Not determined.
Relative density	Not determined.
Vapour density	Not applicable.
Relative gas density	Not applicable.
Particle characteristics	See section 3.

9.2 Other information

Explosive properties:	Product does not present an explosion hazard.
Oxidising properties	No
Evaporation rate	Not applicable.

SECTION 10: Stability and reactivity

10.1 Reactivity No further relevant information available.
10.2 Chemical stability No decomposition if used and stored according to specifications.
Thermal decomposition / conditions to be avoided:
No decomposition if used according to specifications.
10.3 Possibility of hazardous reactions
May produce violent reactions with bases.
Reacts with metals forming hydrogen.
10.4 Conditions to avoid No further relevant information available.
10.5 Incompatible materials:
Strong oxidizing agents
Reducing agent

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Alkaline materials (bases)

10.6 Hazardous decomposition products: No dangerous decomposition products known.

SECTION 11: Toxicological information

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

Acute toxicity

Harmful if swallowed or if inhaled.

LD/LC50 values relevant for classification:		
CAS: 7439-92-1 lead		
Oral	LD50	> 2000 mg/kg (Rat) (OECD Guideline 423)
Dermal	LD50	> 2000 mg/kg (Rat) (OECD Guideline 402)
Inhalative	LC50 (4h)	> 5.05 mg/L (Rat) (OECD Guideline 403)
CAS: 7664-93-9 sulphuric acid		
Oral	LD50	2140 mg/kg (Rat)
Inhalative	LC50 (4h)	0.375 mg/L (Rat) (OECD Guideline 403, inhalation:aerosol)
CAS: 79-94-7 tetrabromobisphenol-A		
Oral	LD50	> 5000 mg/kg (Rat) (OECD Guideline 401)
Dermal	LD50	> 2000 mg/kg (rabbit) (OECD Guideline 402)
Inhalative	LC50	≥ 0.5 mg/L (Rat) nominal 8 h

Primary irritant effect:

Skin corrosion/irritation

Causes severe skin burns and eye damage.

Serious eye damage/irritation

Causes serious eye damage.

Respiratory or skin sensitisation Based on available data, the classification criteria are not met.

Germ cell mutagenicity Based on available data, the classification criteria are not met.

Carcinogenicity

May cause cancer by inhalation. Route of exposure: Inhalation.

Reproductive toxicity

May damage fertility. May damage the unborn child. May cause harm to breast-fed children.

STOT-single exposure Based on available data, the classification criteria are not met.

STOT-repeated exposure

Causes damage to the central nervous system, the kidneys and the blood through prolonged or repeated exposure. Route of exposure: Oral, Inhalation.

Aspiration hazard Based on available data, the classification criteria are not met.

11.2 Information on other hazards

Endocrine disrupting properties		
CAS: 79-94-7	tetrabromobisphenol-A	List II

*

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity:	
CAS: 7439-92-1 lead	
LC50 (48h)	0.07356 mg/L (Daphnia) (Ceriodaphnia dubia)
LC50 (96h) (static)	0.107 mg/L (fish) (Oncorhynchus mykiss)
EC10 (static)	1.06 mg/L (Bacteria) 24 h

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EC50 (72h)	0.0205 mg/L (algae) (OECD Guideline 201, Pseudokirchneriella subcapitata)
NOEC (30d) (dynamic)	0.293 mg/L (fish) (Pimephales promelas)
NOEC	0.1538 mg/L (Daphnia) (Alona rectangula) 25 d
NOEC (48h) (static)	0.034 mg/L (Daphnia)
CAS: 7664-93-9 sulphuric acid	
LC50 (96h) (static)	> 16 - < 28 mg/L (fish) (Lepomis macrochirus) nominal
ErC50 (72h) (static)	> 100 mg/L (algae) (OECD Guideline 201, Desmodesmus subspicatus) nominal
EC50 (48h) (static)	> 100 mg/L (Daphnia) (OECD Guideline 202, Daphnia magna) nominal
CAS: 12065-90-6 Lead oxide sulfate (Pb5O4(SO4))	
LC50	< 1.5 mg/L (Bacteria)
LC50 (48h)	0.0264 mg/L (Daphnia) (Ceriodaphnia) total Pb/L
LC50 (96h)	0.0408 mg/L (fish) (Pimephales promelas) total Pb/L
EC50 (72h)	0.0205 mg/L (algae) (Pseudokirchneriella subcapitata) Pb/L
NOEC	0.0116 mg/L (fish) (Mugil cephalus) total Pb/L
CAS: 7446-14-2 lead sulphate	
IC50	0.5 mg/L (Daphnia) (48h, Daphnia magna)
CAS: 79-94-7 tetrabromobisphenol-A	
LC50 (48h) (dynamic)	> 1.8 mg/L (Daphnia) (OECD Guideline 202, Daphnia magna)
LC50 (96h) (dynamic)	1.1 mg/L (fish) (OECD Guideline 203, Oncorhynchus mykiss)
EC50 (3h) (static)	> 15 mg/L (Bacteria) (OECD Guideline 209, activated sludge) nominal
NOEC (21d) (dynamic)	0.38 mg/L (Daphnia) (Daphnia magna)
NOEC (dynamic)	0.16 mg/L (fish) (Pimephales promelas) 35 d
NOEC (96h) (static)	5.6 mg/L (algae) (EPA OTS 797.1050, Pseudokirchneriella subcapitata)
CAS: 65997-17-3 Fibrous Glass	
LC50 (96h) (static)	> 1000 mg/L (fish) (OECD Guideline 203, Danio rerio)
EC50	> 1000 mg/L (algae) (OECD Guideline 201, Pseudokirchneriella subcapitata) 3d, semi-static
	> 1000 mg/L (Daphnia) (OECD Guideline 202, Daphnia magna) 3d, semi-static

12.2 Persistence and degradability

79-94-7	tetrabromobisphenol-A	0 % (14d, OECD Guideline 301 C)

12.3 Bioaccumulative potential

7439-92-1	lead	1,553 BCF
79-94-7	tetrabromobisphenol-A	ca. 150 BCF (4d, EPA OPPTS 850.1730)

12.4 Mobility in soil

79-94-7	tetrabromobisphenol-A	5.62 log Koc (calculation)

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12.5 Results of PBT and vPvB assessment

PBT:
This product does not contain any substances ≥ 0.1% that have been assessed as PBT.

vPvB:
This product does not contain any substances ≥ 0.1% that have been assessed as vPvB.

12.6 Endocrine disrupting properties For information on endocrine disrupting properties see section 11.

12.7 Other adverse effects No further relevant information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods
Recommendation: Must be specially treated adhering to official regulations.

Uncleaned packaging
Recommendation: Disposal must be made according to official regulations.

SECTION 14: Transport information

14.1 UN number or ID number
ADR/RID/ADN, IMDG, IATA UN2800
14.2 UN proper shipping name
ADR/RID/ADN 2800 BATTERIES, WET, NON-SPILLABLE, electric storage, ENVIRONMENTALLY HAZARDOUS
IMDG, IATA BATTERIES, WET, NON-SPILLABLE, electric storage
14.3 Transport hazard class(es)
ADR/RID/ADN, IATA

Class 8 Corrosive substances.
Label 8

IMDG

Class 8 Corrosive substances.
Label 8
14.4 Packing group
ADR/RID/ADN, IMDG, IATA Void
14.5 Environmental hazards:
Marine pollutant: Symbol (fish and tree)
14.6 Special precautions for user Warning: Corrosive substances.
Hazard identification number (Kemler code): 80
EMS Number: F-A,S-B
Stowage Category A
14.7 Maritime transport in bulk according to IMO instruments Not applicable.

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Transport/Additional information:

ADR/RID/ADN

Tunnel restriction code E

Remarks:

Special Provision:
ADR/RID:
New and spent (used) batteries are exempted from all ADR/RID (special provision 598)
SEA transport:
non-Spillable batteries meet the requirements of Special Provision 238, they are exempted from all IMDG codes and are not subject to special regulation for sea transport.
Air transport:
Special Provision A67: CSB's VRLA batteries meet the requirements of Packing Instruction 872.

The battery has been prepared for transport so as to prevent:

a) A short circuit by the effective insulation of exposed terminals; and
b) Unintentional activation.

Remarks:
All batteries are identified as “Battery, Electric Storage, Wet, Non-spillable" when transported by air, sea or by land transportation.

The battery(s) must be identified as above on the Bill of Lading and properly packed with their terminals protected from short circuit.

Our battery(s) warning label identifies each battery as NON SPILLABLE.

CSB VRLA-AGM batteries are classified as "Non spillable" for the purpose of transportation as result of passing the Vibration and Pressure Differential Test.

CSB VRLA-AGM batteries can be safely transported on deck, or under deck stored on either a passenger or cargo vessel as result of passing the Vibration and Pressure Differential Tests as described in the IMDG regulations (Special Provision 238).

UN "Model Regulation": UN 2800 BATTERIES, WET, NON-SPILLABLE, ELECTRIC STORAGE, 8, ENVIRONMENTALLY HAZARDOUS

SECTION 15: Regulatory information

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

Directive 2012/18/EU
Named dangerous substances - ANNEX I None of the ingredients is listed.
Seveso category E1 Hazardous to the Aquatic Environment
Qualifying quantity (tonnes) for the application of lower-tier requirements 100 t

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Safety data sheet
according to Regulation (EC) No 1907/2006, Article 31

Printing date: 09.01.2025 Version No: 9.00 (replaces version 8.00) Revision: 09.01.2025

Trade name: Valve Regulated Lead-acid Battery (VRLA Battery)

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Qualifying quantity (tonnes) for the application of upper-tier requirements 200 t
REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 30, 63, 72

Regulation (EU) No 649/2012		
CAS: 7439-92-1	lead	Annex I Part 1
CAS: 1309-60-0	lead dioxide	Annex I Part 1
CAS: 12065-90-6	Lead oxide sulfate (Pb5O4(SO4))	Annex I Part 1
CAS: 7446-14-2	lead sulphate	Annex I Part 1

DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II	
CAS: 7439-92-1	lead

REGULATION (EU) 2019/1148

Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))			
CAS: 7664-93-9	sulphuric acid	Limit value: > 15 - ≤ 40 %	20 - 30%

Annex II - REPORTABLE EXPLOSIVES PRECURSORS
None of the ingredients is listed.

Regulation (EC) No 273/2004 on drug precursors		
CAS: 7664-93-9	sulphuric acid	3

Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors		
CAS: 7664-93-9	sulphuric acid	3

National regulations:

Information about limitation of use:
Workers are not allowed to be exposed to the hazardous carcinogenic materials contained in this preparation. Exceptions can be made by the authorities in certain cases.

Other regulations, limitations and prohibitive regulations

Substances of very high concern (SVHC) according to REACH, Article 57	
CAS: 7439-92-1	lead
CAS: 12065-90-6	Lead oxide sulfate (Pb5O4(SO4))
CAS: 79-94-7	tetrabromobisphenol-A

15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

*
SECTION 16: Other information
This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Relevant phrases
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H350i May cause cancer by inhalation.
H351 Suspected of causing cancer.
H360Df May damage the unborn child. Suspected of damaging fertility.
H360FD May damage fertility. May damage the unborn child.
H361f Suspected of damaging fertility.
H362 May cause harm to breast-fed children.
H372 Causes damage to organs through prolonged or repeated exposure.
H373 May cause damage to organs through prolonged or repeated exposure.

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Safety data sheet

according to Regulation (EC) No 1907/2006, Article 31

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H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
EUH201 Contains lead. Should not be used on surfaces liable to be chewed or sucked by children.
Version number of previous version: 8.00

Abbreviations and acronyms:

REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals
MARPOL: (from Marine Pollutant) International Convention for the Prevention of Marine Pollution from Ships
IBC Code: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
UN: United Nations (also UNO: United Nations Organization)
NOEC: No Observed Effect Concentration
OECD: Organisation for Economic Co-operation and Development
ASTM: American Society for Testing and Materials
WAF: Water Accommodated Fraction
ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
DNEL: Derived No-Effect Level (REACH)
PNEC: Predicted No-Effect Concentration (REACH)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
SVHC: Substances of Very High Concern
vPvB: very Persistent and very Bioaccumulative
Acute Tox. 4: Acute toxicity – Category 4
Skin Corr. 1A: Skin corrosion/irritation – Category 1A
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
Carc. 1A: Carcinogenicity – Category 1Ai
Carc. 2: Carcinogenicity – Category 2
Repr. 1A: Reproductive toxicity – Category 1A
Repr. 1A: Reproductive toxicity – Category 1A
STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1
STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2
Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1
Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1

*** Data compared to the previous version altered.**