



Safety Data Sheet

OPzV, Valve Regulated Lead Acid Tubular Gel Battery

Revision
Date: 01/20/2025

Section 1. Identification

Product identifier

Product Identity OPzV, Valve Regulated Lead Acid Tubular Gel Battery

Other means of identification Not Applicable

Relevant identified uses of the substance or mixture and uses advised against
Lead acid storage battery / electric storage battery.

Details of the supplier of the safety data sheet

Company Name Surrette Battery Company Limited
P.O. Box 2020, 58 Lisgar St.
Springhill, Nova Scotia, Canada B0M 1X0

Emergency

24 hour Emergency Telephone No. CANUTEC 1-613-996-6666

Customer Service: Tel: 902-597-3767

Section 2. Hazard(s) identification

Classification of the substance or mixture under US OSHA's Hazard Communication Standard (1910.1200) revised 2024 and Canadian Hazardous Products Regulations (SOR/2015-17) (GHS revision 7)

This product is an article (exempt from SDS regulations) and is safe when used as directed. This SDS is not required, but provided for customer satisfaction

Oxidizing liquid, category 3;H272	May intensify fire; oxidizer.
Acute toxicity(oral), category 4;H302	Harmful if swallowed.
Acute toxicity(inhalation), category 4;H332	Harmful if inhaled.
Lactation effect;H362	May cause harm to breast-fed children.
Skin corrosion/irritation category 2;H315	Causes skin irritation.
Serious eye damage / eye irritation, category 2A;H319	Causes serious eye irritation.
Reproductive toxicity, category 1;H360	May damage fertility or the unborn child.
Specific target organ toxicity, repeated exposure category 1;H372	Causes damage to organs through prolonged or repeated exposure.
Aquatic toxicity (acute), category 1;H400	Very toxic to aquatic life.
Aquatic toxicity (chronic), category 1;H410	Very toxic to aquatic life with long lasting effects.

Label elements



Danger

H272 May intensify fire; oxidizer.

H302 Harmful if swallowed.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H360 May damage fertility or the unborn child.

H362 May cause harm to breast-fed children.

H372 Causes damage to organs through prolonged or repeated exposure.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

[Prevention]

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P210 Keep away from heat, sparks, open flames, and other ignition sources - No smoking.

P220 Keep away from clothing and other combustible materials.

P221 Take any precaution to avoid mixing with combustibles.

P260 Do not breathe dust, fume, mist, vapors or spray.

P263 Avoid contact during pregnancy, while nursing.

P264 Wash thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P271 Use only outdoors or in a well-ventilated area.

P273 Avoid release to the environment.

P280 Wear protective gloves, eye protection, and face protection.

[Response]

P301+312 IF SWALLOWED: Call a POISON CENTER, doctor or physician if you feel unwell.

P302+352 IF ON SKIN: Wash with plenty of soap and water.

P304+340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P308+313 IF exposed or concerned: Get medical advice or attention.

P312 Call a POISON CENTER, doctor or physician if you feel unwell.

P314 Get Medical advice or attention if you feel unwell.

P330 Rinse mouth.

P332+313 If skin irritation occurs: Get medical attention.



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P337+313 If eye irritation persists: Get medical advice or attention.
 P362+364 Take off contaminated clothing and wash it before reuse.
 P370+378 In case of fire: Use extinguishing media listed in section 5 of SDS for extinction.
 P391 Collect spillage.

[Storage]

P405 Store locked up.

[Disposal]

P501 Dispose of contents or container in accordance with local and national regulations.

Other hazards

This product contains no PBT/vPvB/vPvM chemicals.

This product contains no endocrine disrupting chemicals.

Does not contain component(s) that meet a 'definition' of per & poly fluoroalkyl substance (PFAS) per US or Canadian regulations.

Section 3. Composition/information on ingredients

This product contains the following substances that present a hazard within the meaning of US OSHA's Hazard Communication Standard (1910.1200) revised 2024 and Canadian Hazardous Products Regulations (SOR/2015-17) (GHS revision 7)

Ingredient/Chemical Designations	Weight %	GHS Classification	Notes
Lead oxide (PbO2) CAS Number: 1309-60-0 Synonyms: Lead peroxide	45 - 70	Oxidizing solid, category 3;H272 Acute toxicity(oral), category 4;H302 Acute toxicity(inhalation), category 4;H332 Reproductive toxicity, category 1;H360 Specific target organ toxicity, repeated exposure category 2;H373 Aquatic toxicity (acute), category 1;H400 Aquatic toxicity (chronic), category 1;H410	----
Lead CAS Number: 7439-92-1 Synonyms: Lead Compounds (as Pb)i, Lead Compounds (as Pb)	45 - 70	Reproductive toxicity, category 1A;H360D: C ≥ 0,03 % Aquatic toxicity (chronic), category 1;H410 Aquatic toxicity (acute), category 1;H400 Specific target organ toxicity, repeated exposure category 1;H372 Lactation effect;H362	Acute M-Factor: 10 Chronic M-Factor: 100
Sulfuric acid CAS Number: 7664-93-9 Synonyms: Sulfuric acid (acid aerosols including mists, vapors, gas, fog, and other airborne forms of any particle size), Sulphuric acid	7 - 13	Skin corrosion/irritation category 1A;H314: C ≥ 15 % Skin corrosion/irritation category 2;H315: 5 % ≤ C < 15 % Serious eye damage / eye irritation, category 2;H319: 5 % ≤ C < 15 %	----
ABS resin CAS Number: 9003-56-9 Synonyms: No available information	7 - 13	Not Classified	----
PVC-SiO2 Separator CAS Number: Proprietary Synonyms: No available information	3 - 7	Not Classified	----



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Silicon dioxide, chemically prepared CAS Number: 112945-52-5 Synonyms: Amorphous fumed silica	0.5 - 1.5	Not Classified	----
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The actual concentration or concentration range is withheld as a trade secret.
*PBT/vPvB - PBT, vPvM or vPvB-substance.
The full texts of the phrases are shown in Section 16.

Section 4. First aid measures

Description of first aid measures

- General** In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.
- Inhalation** Electrolyte (Sulfuric Acid) – Remove to fresh air immediately. If not breathing give artificial respiration. If breathing is difficult, give oxygen; consult a doctor.
Lead – remove from exposure, gargle, wash nose and lips; consult a doctor.
- Eyes** Electrolyte (Sulfuric Acid) – Flush immediately with large amounts of water for at least 20 minutes while lifting lids. Seek immediate medical attention if eyes have been exposed directly to acid.
Lead – Flush immediately with large amounts of water for at least 20 minutes while lifting lids. Seek immediate medical attention if eyes have been exposed directly to lead.
- Skin** Electrolyte (Sulfuric Acid) – Flush with large amounts of water for at least 15 minutes. Remove contaminated clothing, including shoes. Wash contaminated clothing before reuse, discard contaminated shoes. Seek medical attention if symptoms/irritation persists.
Lead – Wash immediately with soap and water.
- Ingestion** Electrolyte (Sulfuric Acid) – Give large quantities of water, do NOT induce vomiting or aspiration into the lungs may occur and can cause permanent injury or death; consult doctor.
Lead – Consult doctor immediately.

Most important symptoms and effects, both acute and delayed

Overview **IMMEDIATE CONCERNS:** CAUTION: May cause eye or skin burns. Avoid vapor.
POTENTIAL SIDE EFFECTS
EYES: Tissue destruction and permanent eye damage may occur if not treated immediately.
SKIN: May be corrosive and cause severe burns.
INGESTION: Corrosive to mucous membranes of the mouth, esophagus, stomach & throat.
INHALATION: Avoid mist, can be a severe irritant.
ACUTE TOXICITY: Eye, skin, lung burning may be caused with exposure to mist. Avoid mist.
TARGET ORGAN STATEMENT: Contains material which may cause damage to gastrointestinal tract and respiratory tract. Treat symptomatically. See section 2 for further details.

- Inhalation** Harmful if inhaled.
- Eyes** Causes serious eye irritation.
- Skin** Causes skin irritation.
- Ingestion** Harmful if swallowed.

Section 5. Fire-fighting measures

Extinguishing media

CO₂ (do not use directly on cells), appropriate foam, dry chemical powder; use appropriate media/agents for surrounding fire and avoid breathing vapors.

Special hazards arising from the substance or mixture

Hazardous decomposition: CO, CO₂, acid, hydrogen and oxygen gas.

Keep away from heat, sparks, open flames, and other ignition sources - No smoking.

Keep away from clothing and other combustible materials.

Take any precaution to avoid mixing with combustibles.

Do not breathe dust, fume, mist, vapors or spray.

Avoid contact during pregnancy, while nursing.

Advice for fire-fighters

As with all fires, wear positive pressure, self-contained breathing apparatus, (SCBA) with a full face piece and protective clothing. Persons without respiratory protection should leave area. Wear SCBA during clean-up immediately after fire. No smoking.

The OPzV batteries are not hazards for eye and skin contact under normal circumstances. In the case of exposure to internal parts of the battery, the following measures should be taken.

Use positive pressure, self-contained breathing apparatus (or cartridge type mask). Beware of acid splatter during any application of water (if battery acid or metal is not in danger of being exposed) and wear acid-resistant clothing, gloves, face and eye protection (chemical splash guards or face shield). If batteries are on charge, shut off power to the charging equipment. *note – strings of series connected batteries may still pose risk of electric shock even when charging equipment is shut down*

Hazardous Combustion products: CO, CO₂, acid, hydrogen and oxygen gas. Highly flammable hydrogen gas is generated during charging and operation of batteries. If ignited by burning cigarette, naked flame or spark, may cause battery explosion with dispersion of casing fragments and corrosive liquid electrolyte. Keep away all sources of gas ignition and do not allow metallic articles to simultaneously contact the negative and positive terminals of the battery. Carefully follow manufacturer's instructions for installation and service.

ERG Guide No. 154

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Put on appropriate personal protective equipment (see section 8).

Environmental precautions

Do not allow spills to enter drains or waterways.

Use good personal hygiene practices. Wash hands before eating, drinking, smoking, or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

Methods and material for containment and cleaning up

Wear acid-resistant clothing, boots, gloves and face shield. Stop flow of material, contain/absorb small spills with dry sand, earth or vermiculite; do not use combustible materials. If possible, carefully neutralize spilled electrolyte with suitable alkali such as lime, soda ash or sodium bicarbonate. Do not allow discharge of un-neutralized acid to sewer.



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Consult federal, provincial/state and local requirements for allowed means of disposal. Acid must be managed in accordance with approved local, provincial/state and national/federal requirements.

Section 7. Handling and storage

Precautions for safe handling

Handle containers carefully to prevent damage and spillage.

Unless involved in recycling operations, do not breach the casing or empty the contents of the battery. Handle carefully and avoid tipping, which may allow electrolyte leakage. There may be increased risk of electric shock from strings of connected batteries. Keep containers tightly closed when not in use. If battery case is broken, avoid contact with internal components. Keep vent caps on and cover terminals to prevent short circuits. Place cardboard between layers of stacked automotive batteries to avoid damage and short circuits. Keep away from combustible materials, organic chemicals, reducing substances, metals, strong oxidizers and water. Use banding and / or stretch wrap to secure items for shipping. Wear protective clothing and equipment during handling and avoid contact with skin, eyes and clothing. Wash after handling.

See section 2 for further details. - [Prevention]

Conditions for safe storage, including any incompatibilities

Store batteries under roof in cool, dry, well-ventilated areas separated from incompatible materials and from activities or sources that may create flame, spark or heat. Store on smooth, impervious surfaces with measures for liquid containment in the event of electrolyte spill. Keep away from metallic objects that could bridge the terminals on a battery and create a dangerous short circuit.

Charging: There is a possible risk of electric shock from charging equipment and from strings of series connected batteries, whether or not being charged. Shut off power to chargers whenever not in use and before detachment of any circuit connections. Batteries being charged will generate and release flammable hydrogen gas. Charging space should be ventilated. Keep battery vent caps in position. Prohibit smoking and avoid creation of flames and sparks nearby. Wear face and eye protection when near batteries being charged.

Incompatible materials: Electrolyte – contact with combustibles and organic materials may cause fire and explosion; also reacts violently with strong reducing agents, metals, sulfur trioxide gas, strong oxidizers and water. Contact with metals may produce toxic sulfur dioxide fumes and may release flammable hydrogen gas. Reactions can generate a great deal of heat as does the dilution of sulfuric acid with water; never add water to acid, acid should always be slowly added to water.

Lead Compounds – avoid contact with strong acids, bases, halides, halogenates, potassium nitrate, permanganate, peroxides, nascent hydrogen and reducing agents.

See section 2 for further details. - [Storage]

Specific end use(s)

No data available.

Section 8. Exposure controls / personal protection

Control parameters

Exposure

CAS No.	Ingredient	Source	Value
1309-60-0	Lead oxide (PbO ₂)	ACGIH	No Established Limit
		OSHA	No Established Limit



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		NIOSH	No Established Limit
		Alberta	0.05 mg/m ³ TWA (as Pb)
		British Columbia	No Established Limit
		Manitoba	No Established Limit
		New Brunswick	No Established Limit
		Newfoundland and Labrador	No Established Limit
		Nova Scotia	No Established Limit
		Northwest Territories	No Established Limit
		Nunavut	No Established Limit
		Ontario	No Established Limit
		Prince Edward Island	No Established Limit
		Quebec	No Established Limit
		Saskatchewan	No Established Limit
		Yukon	No Established Limit
7439-92-1	Lead	ACGIH	0.05 mg/m ³
		OSHA	50 ug/m
		NIOSH	TWA (8-hour) 0.050 mg/m ³
		Alberta	0.05 mg/m ³ TWA
		British Columbia	0.05 mg/m ³ TWA
		Manitoba	0.05 mg/m ³ TWA
		New Brunswick	0.05 mg/m ³ TWA
		Newfoundland and Labrador	0.05 mg/m ³ TWA
		Nova Scotia	0.05 mg/m ³ TWA
		Northwest Territories	0.05 mg/m ³ TWA 0.15 mg/m ³ STEL
		Nunavut	0.05 mg/m ³ TWA 0.15 mg/m ³ STEL
		Ontario	0.05 mg/m ³ TWA (designated substances regulation); 0.05 mg/m ³ TWA (applies to workplaces to which the designated substances regulation does not apply)
		Prince Edward Island	0.05 mg/m ³ TWA
		Quebec	0.05 mg/m ³ TWAEV
		Saskatchewan	0.05 mg/m ³ TWA 0.15 mg/m ³ STEL
		Yukon	0.15 mg/m ³ TWA (dust and fume) 0.45 mg/m ³ STEL (dust and fume)
7664-93-9	Sulfuric acid	ACGIH	0.2 mg/m ³ (T) Thoracic Fraction
		OSHA	1 mg/m ³
		NIOSH	TWA 1 mg/m ³
		Alberta	1 mg/m ³ TWA 3 mg/m ³ STEL
		British Columbia	0.2 mg/m ³ TWA (contained in strong inorganic acid mists, thoracic)



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		Manitoba	0.2 mg/m ³ TWA (thoracic particulate matter)
		New Brunswick	1 mg/m ³ TWA 3 mg/m ³ STEL
		Newfoundland and Labrador	0.2 mg/m ³ TWA (thoracic particulate matter)
		Nova Scotia	0.2 mg/m ³ TWA (thoracic particulate matter)
		Northwest Territories	0.2 mg/m ³ TWA (thoracic fraction, strong acid mists only) 0.6 mg/m ³ STEL (thoracic fraction, strong acid mists only)
		Nunavut	0.2 mg/m ³ TWA (thoracic fraction) 0.6 mg/m ³ STEL (thoracic fraction)
		Ontario	0.2 mg/m ³ TWA (thoracic)
		Prince Edward Island	0.2 mg/m ³ TWA (thoracic particulate matter)
		Quebec	1 mg/m ³ TWAEV 3 mg/m ³ STEV
		Saskatchewan	0.2 mg/m ³ TWA (thoracic fraction) 0.6 mg/m ³ STEL (thoracic fraction)
		Yukon	1 mg/m ³ TWA 1 mg/m ³ STEL
9003-56-9	ABS resin	ACGIH	No Established Limit
		OSHA	No Established Limit
		NIOSH	No Established Limit
		Alberta	No Established Limit
		British Columbia	No Established Limit
		Manitoba	No Established Limit
		New Brunswick	No Established Limit
		Newfoundland and Labrador	No Established Limit
		Nova Scotia	No Established Limit
		Northwest Territories	No Established Limit
		Nunavut	No Established Limit
		Ontario	No Established Limit
		Prince Edward Island	No Established Limit
		Quebec	No Established Limit
Saskatchewan	No Established Limit		
Yukon	No Established Limit		
112945-52-5	Silicon dioxide, chemically prepared	ACGIH	No Established Limit
		OSHA	No Established Limit
		NIOSH	No Established Limit
		Alberta	No Established Limit
		British Columbia	No Established Limit
		Manitoba	No Established Limit
		New Brunswick	No Established Limit
		Newfoundland and Labrador	No Established Limit



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		Nova Scotia	No Established Limit
		Northwest Territories	No Established Limit
		Nunavut	No Established Limit
		Ontario	No Established Limit
		Prince Edward Island	No Established Limit
		Quebec	No Established Limit
		Saskatchewan	No Established Limit
		Yukon	No Established Limit
Proprietary	PVC-SiO2 Separator	ACGIH	No Established Limit
		OSHA	No Established Limit
		NIOSH	No Established Limit
		Alberta	No Established Limit
		British Columbia	No Established Limit
		Manitoba	No Established Limit
		New Brunswick	No Established Limit
		Newfoundland and Labrador	No Established Limit
		Nova Scotia	No Established Limit
		Northwest Territories	No Established Limit
		Nunavut	No Established Limit
		Ontario	No Established Limit
		Prince Edward Island	No Established Limit
		Quebec	No Established Limit
		Saskatchewan	No Established Limit
		Yukon	No Established Limit

Exposure controls

Respiratory

If workers are exposed to concentrations above the exposure limit, they must use the appropriate, certified respirators.

Eyes

If battery case is damaged, use chemical splash goggles or face shield.

Skin

If battery case is damaged, use rubber or plastic acid resistant gloves with elbow length gauntlet, acid-resistant clothing, apron and boots.

Engineering Controls

Store and handle in a well-ventilated area. If mechanical ventilation is used, components must be acid-resistant. Charge batteries in areas with adequate ventilation. General dilution ventilation is acceptable.

Other Work Practices

In areas where sulfuric acid solutions are handled in concentrations greater than 1%, and depending on exposure and workplace standards, emergency eyewash stations and showers should be provided, with unlimited water supply. Chemically impervious apron and face shield recommended when adding water or electrolyte to batteries. Wash hands after handling. Use good personal hygiene practices. Wash hands before eating, drinking,



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smoking, or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

See section 2 for further details.

Section 9. Physical and chemical properties

Information on basic physical and chemical properties

Physical State	Liquid
Color	Colorless
Odor	Sharp, pungent
Melting point / freezing point	Not Available
Initial boiling point and boiling range	203-240 °F
Flammability (solid, gas)	Not Applicable
Upper/lower flammability or explosive limits	Lower Explosive Limit: 4.1% (Hydrogen) Upper Explosive Limit: 74.2% (Hydrogen)
Flash Point	Below room temperature (as hydrogen gas)
Auto-ignition temperature	Not Available
Decomposition temperature	Not Available
pH	~ 1 to 2
Viscosity (cSt)	Not Available
Solubility in Water	100%
Partition coefficient n-octanol/water (Log Kow)	Not Available
Vapor pressure (Pa)	10MM hG
Relative Density	(H2O = 1) Liquid, a 1.215 to 1.350 sharp,
Vapor Density	(Air = 1) Greater than 1
Evaporation rate (Ether = 1)	(Butyl Acetate = 1) Less than 1
VOC Content	Not Available

Other information

No other relevant information.

Section 10. Stability and reactivity

Reactivity

Hazardous Polymerization will not occur.

Chemical stability

Stable under normal circumstances.

Possibility of hazardous reactions

Reacts with some bases.

Conditions to avoid

Prolonged overcharge at high current; sources of ignition.



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Incompatible materials

Electrolyte – contact with combustibles and organic materials may cause fire and explosion; also reacts violently with strong reducing agents, metals, sulfur trioxide gas, strong oxidizers and water. Contact with metals may produce toxic sulfur dioxide fumes and may release flammable hydrogen gas. Reactions can generate a great deal of heat as does the dilution of sulfuric acid with water; never add water to acid, acid should always be slowly added to water.

Lead Compounds – avoid contact with strong acids, bases, halides, halogenates, potassium nitrate, permanganate, peroxides, nascent hydrogen and reducing agents.

Hazardous decomposition products

CO, CO₂, acid, hydrogen and oxygen gas.

Section 11. Toxicological information

Acute toxicity

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapor LC50, mg/L/4hr	Inhalation Dust/Mist LC50, mg/L/4hr	Inhalation Gas LC50, ppm
Lead oxide (PbO ₂) - (1309-60-0)	No data available.	No data available.	No data available.	No data available.	No data available.
Lead - (7439-92-1)	> 2,000.00, Rat - Category: NA	> 2,000.00, Rat - Category: NA	No data available.	> 5.05, Rat - Category: NA	No data available.
Sulfuric acid - (7664-93-9)	No data available.	No data available.	No data available.	No data available.	No data available.
ABS resin - (9003-56-9)	No data available.	No data available.	No data available.	No data available.	No data available.
PVC-SiO ₂ Separator - (Proprietary)	No data available.	No data available.	No data available.	No data available.	No data available.
Silicon dioxide, chemically prepared - (112945-52-5)	3,160.00, Rat - Category: 5	No data available.	No data available.	No data available.	No data available.

Carcinogen Data

CAS No.	Ingredient	Source	Value
1309-60-0	Lead oxide (PbO ₂)	IARC	Group 1: No; Group 2a: Yes; Group 2b: No; Group 3: No; Group 4: No;
		ACGIH	No Established Limit
7439-92-1	Lead	IARC	Group 1: No; Group 2a: No; Group 2b: Yes; Group 3: No; Group 4: No;
		ACGIH	A3
7664-93-9	Sulfuric acid	IARC	Group 1: Yes; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
		ACGIH	A2 (in strong inorganic acid mists)
9003-56-9	ABS resin	IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: Yes; Group 4: No;
		ACGIH	No Established Limit
112945-52-5	Silicon dioxide, chemically prepared	IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: Yes; Group 4: No;
		ACGIH	No Established Limit
Proprietary	PVC-SiO ₂ Separator	IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
		ACGIH	No Established Limit



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Classification	Category	Hazard Description
Acute toxicity (oral)	4	Harmful if swallowed.
Acute toxicity (dermal)	---	Not Applicable
Acute toxicity (inhalation)	4	Harmful if inhaled.
Skin corrosion/irritation	2	Causes skin irritation.
Serious eye damage/irritation	2A	Causes serious eye irritation.
Respiratory sensitization	---	Not Applicable
Skin sensitization	---	Not Applicable
Germ cell mutagenicity	---	Not Applicable
Carcinogenicity	---	Not Applicable
Reproductive toxicity	1	May damage fertility or the unborn child.
STOT-single exposure	---	Not Applicable
STOT-repeated exposure	1	Causes damage to organs through prolonged or repeated exposure.
Aspiration hazard	---	Not Applicable

Possible routes of entry: No available information

Symptoms and effects, both acute and delayed:

IMMEDIATE CONCERNS: CAUTION: May cause eye or skin burns. Avoid vapor.

POTENTIAL SIDE EFFECTS

EYES: Tissue destruction and permanent eye damage may occur if not treated immediately.

SKIN: May be corrosive and cause severe burns.

INGESTION: Corrosive to mucous membranes of the mouth, esophagus, stomach & throat.

INHALATION: Avoid mist, can be a severe irritant.

ACUTE TOXICITY: Eye, skin, lung burning may be caused with exposure to mist. Avoid mist.

TARGET ORGAN STATEMENT: Contains material which may cause damage to gastrointestinal tract and respiratory tract. Treat symptomatically.

Eyes Causes serious eye irritation.

Skin Causes skin irritation.

Ingestion Harmful if swallowed.

Section 12. Ecological information

Toxicity

Very toxic to aquatic life.

Very toxic to aquatic life with long lasting effects.



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Aquatic Ecotoxicity

Ingredient	96 hr LC50 fish, mg/L	48 hr EC50 crustacea, mg/L	ErC50 algae, mg/L
Lead oxide (PbO ₂) - (1309-60-0)	No data available.	No data available.	No data available.
Lead - (7439-92-1)	0.11, Oncorhynchus mykiss	0.60,	0.36, Pseudokirchnerella subcapitata
Sulfuric acid - (7664-93-9)	27.00, Lepomis macrochirus	101.00, Daphnia magna	101.00, Desmodesmus subspicatus
ABS resin - (9003-56-9)	No data available.	No data available.	No data available.
PVC-SiO ₂ Separator - (Proprietary)	No data available.	No data available.	No data available.
Silicon dioxide, chemically prepared - (112945-52-5)	No data available.	No data available.	No data available.

Persistence and degradability

There is no data available on the preparation itself.

Bioaccumulative potential

Not Available

Mobility in soil

No data available.

Results of PBT and vPvB assessment

This product contains no PBT/vPvB/vPvM chemicals.

Other adverse effects

No data available.

Section 13. Disposal considerations

Waste treatment methods

Waste should not be released to sewers. Observe all federal, state, and local regulations when disposing of this substance.

Section 14. Transport information

All OPzV batteries do not need to be transported and shipped as fully regulated Class 8 Corrosive hazardous materials / dangerous goods when tested, packaged and marked in accordance with the following regulations as they meet test and specification requirements for 'non-spillable' designation and are identified as 'battery, electric storage, non-spillable'.

DOT: 49 CFR 173.159(f) and 49 CFR 173.159a

The batteries are exempted from regulation as they have been tested in accordance with the vibration and pressure differential tests found in 49 CFR 173.159(f) and 'rupture test' found at 49 CFR 173.159a

- batteries must be protected against short circuits and securely packaged in accordance with 49 CFR 173.159a

- the batteries and outer packaging must be plainly and durably marked NON-SPILLABLE BATTERY

or NON-SPILLABLE as required by 49 CFR 173.159a

IATA: packing Instruction 872 and Special Provision A67



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OPzV, Valve Regulated Lead Acid Tubular Gel Battery

Revision
Date: 01/20/2025

The batteries are exempted from regulation as they have been tested in accordance with the vibration and pressure differential tests found in Packing Instruction 872 and 'rupture test' found in Special Provision A 67 of the International Air Transport Association (IATA) Dangerous Goods Regulations.

- batteries must be protected against short circuits and securely packaged in accordance with Special Provision A67
- batteries and their outer packaging must be plainly and durably marked NON-SPILLABLE BATTERY or NON-SPILLABLE

- the words 'not restricted' and 'Special Provision A67' must be included in the description of the substance on the air waybill when an air waybill is issued

IMDG: Special Provision 238.1 and 238.2

The batteries are exempted from regulation as they have been tested in accordance with the vibration and pressure differential tests and 'rupture test' found in Special Provision 238.1 and 238.2

- batteries and their outer packaging must be plainly and durably marked NON-SPILLABLE BATTERY or NON-SPILLABLE

- batteries must be protected against short circuits and securely packaged in accordance with Special Provision 238.1 and 238.2

IF the regulation listed above are not met then:

Not regulated for packages under 5L (1.3 gallons) or 5.0 kg (11 lbs).

Classification Method: Classified as per Part 2, Sections 2.1-2.8 of the Transportation of Dangerous Goods Regulations.

DOT (Domestic Surface Transportation)

UN number UN2800
UN proper shipping name Batteries, wet, non-spillable, electric storage
Transport hazard class(es) 8
Sub Class: 8
Packing group Not Applicable

TDG (Domestic Surface Transportation)

UN number UN2800
UN proper shipping name Batteries, wet, non-spillable, electric storage
Transport hazard class(es) 8
Sub Class: Not Applicable
Packing group Not Applicable

IMO / IMDG (Ocean Transportation)

UN number UN2800
UN proper shipping name Batteries, wet, non-spillable, electric storage
Transport hazard class(es) **IMDG:** 8
Sub Class: Not Applicable
Packing group Not Applicable

ICAO/IATA

UN number UN2800



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UN proper shipping name Batteries, wet, non-spillable, electric storage

Transport hazard class(es) **Air Class:** 8
Sub Class: Not Applicable

Packing group Not Applicable

Environmental hazards

Marine Pollutant: Yes; (Lead)

Special precautions for user

Not Applicable

Section 15. Regulatory information

Regulatory Overview The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented.

This product has been classified in accordance with US OSHA's Hazard Communication Standard (1910.1200) revised 2024 and Canadian Hazardous Products Regulations (SOR/2015-17 amended 2022-12-15) (GHS revision 7) and the SDS contains all of the information required by those regulations.

Toxic Substance Control Act (TSCA)

ABS resin (XU)
Calcium
Lead
Lead oxide (PbO₂)
Sulfuric acid
Tin

EPCRA 302 Extremely Hazardous:

Sulfuric acid

EPCRA 313 Toxic Chemicals:

Lead
Lead oxide (PbO₂)
Sulfuric acid

Canadian Domestic Substance List (DSL):

ABS resin
Calcium
Lead
Lead oxide (PbO₂)
Silicon dioxide, chemically prepared
Sulfuric acid
Tin

Canadian Non-Domestic Substance List (NDSL):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Carcinogens (>0.0%):

Lead

Lead oxide (PbO₂)

Proposition 65 - Developmental Toxins (>0.0%):

Lead

Proposition 65 - Female Repro Toxins (>0.0%):

Lead

Proposition 65 - Male Repro Toxins (>0.0%):

Lead

Proposition 65 Label Warning:



WARNING: This product can expose you to chemicals including [Lead, Lead oxide (PbO₂)], which are known to the State of California to cause cancer, and [Lead], which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Note: Strong inorganic acid mists containing sulfuric acid are listed on the California Proposition 65 Carcinogen List. [Sulfuric acid, in and of itself, is not listed under Proposition 65. However, if one has sulfuric acid, which through its intended use generates an acid mist that in turn contains sulfuric acid that would meet the listing. The term "strong" does not refer to the concentration of the acid, but rather the strength of the acid. The basis for the listing of strong inorganic acid mists containing sulfuric acid was the formal identification by the National Toxicology Program (NTP), in its Ninth Report on Carcinogens, that this chemical mixture is "known to be a human carcinogen." (Public notice available at http://www.oehha.ca.gov/prop65/CRNR_notices/admin_listing/intent_to_list/noil19b4.html.)]

Section 16. Other information

Revision Date 01/20/2025

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

The full text of the phrases appearing in section 3 is:

H272 May intensify fire; oxidizer.

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.

H360 May damage fertility or the unborn child.

H362 May cause harm to breast-fed children.

H372 Causes damage to organs through prolonged or repeated exposure.



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H373 May cause damage to organs through prolonged or repeated exposure.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

Disclaimer: The information presented herein is supplied as a guide to those who handles or use this product. Safe work practices must be employed when working with any materials. It is important that the end user makes a determination regarding the adequacy of the safety procedures employed during the use of this product.

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