Safety Data Sheet

1.1 Product identifier



Section 1: Identification of the Substance/Mixture and of the Company/Undertaking

Product Name	 Battery pack containing sealed lead acid batteries
Synonyms	 Battery pack or accumulator pack contain Maintenance Free Battery or Valve Regulated Battery
Product Description	 Battery pack is a manufactured article consisting of a plastic and metal sealed case containing one or more sealed lead acid battery connected by wires.
1.2 Relevant identified	uses of the substance or mixture and uses advised against
Relevant identified use(s)	Electric Storage Battery
Use(s) advised against	Transportation
1.3 Details of the suppl	ier of the safety data sheet
Manufacturer	APC by Schneider Electric
	132 Fairgrounds Road West Kingston, RI 02892 United States www.APC.com
Telephone (Gener	al) • 800-788-2208 or 401-789-5735
1.4 Emergency telepho	one number
Manufacturer	800-788-2208

Section 2: Hazards Identification

EU/EEC

According to Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010] According to EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

2.1 Classification of the substance or mixture

CLP	 Acute Toxicity Oral 4 - H302 Skin Corrosion 1A - H314 Reproductive Toxicity 1A - H360Df Specific Target Organ Toxicity Repeated Exposure 2 - H373 Hazardous to the aquatic environment Acute 1 - H400 Hazardous to the aquatic environment Chronic 1 - H410
DSD/DPD	 Harmful (Xn) Corrosive (C) Substances Toxic To Reproduction - Category 1 Dangerous to the Environment (N) R20/22, R48/22, R35, R60, R61, R50, R53
2.2 Label Elements	

CLP

DANGER



Hazard statements • H

H302 - Harmful if swallowed

H314 - Causes severe skin burns and eye damage.

H360Df - May damage the unborn child. Suspected of damaging fertility.

- 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

Precautionary statements

Prevention • P201 - Obtain special instructions before use.

- P202 Do not handle until all safety precautions have been read and understood.
- P260 Do not breathe mist/vapours/spray.
- P264 Wash thoroughly after handling.
- P270 Do not eat, drink or smoke when using this product.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P281 Use personal protective equipment as required.
- P273 Avoid release to the environment.

Response P304+P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. P310 - Immediately call a POISON CENTER or doctor/physician. P321 - Specific treatment, see supplemental first aid information. P363 - Wash contaminated clothing before reuse. P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P301+P312 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician if you feel unwell. P330 - Rinse mouth. P331 - Do NOT induce vomiting. P314 - Get medical advice/attention if you feel unwell. P308+P313 - IF exposed or concerned: Get medical advice/attention. P391 - Collect spillage. Storage/Disposal P405 - Store locked up. P501 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Supplemental information 10.8 percent of this product consists of an ingredient of unknown toxicity. **DSD/DPD**



Risk phrases _•	 R20/22 - Harmful by inhalation and if swallowed. R48/22 - Harmful: danger of serious damage to health by prolonged exposure if swallowed. R35 - Causes severe burns. R60 - May impair fertility. R61 - May cause harm to the unborn child. R50 - Very toxic to aquatic organisms. R53 - May cause long-term adverse effects in the aquatic environment.
Safety phrases •	 S36 - Wear suitable protective clothing. S37 - Wear suitable gloves. S39 - Wear eye/face protection. S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). S53 - Avoid exposure - obtain special instructions before use. S57 - Use appropriate containment to avoid environmental contamination.

2.3 Other Hazards

CLP

 According to Regulation (EC) No. 1272/2008 (CLP) this material is considered hazardous.

DSD/DPD

According to European Directive 1999/45/EC this material is considered dangerous.

United States (US) According to OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

OSHA HCS 2012	Skin Corrosion 1A - H314 Serious Eye Damage 1 - H318 Carcinogenicity 2 - H351 Reproductive Toxicity 1A - H360 Specific Toract Organ Toxicity Reported Exposure 1 - H372
	Specific Target Organ Toxicity Repeated Exposure 1 - H372

2.2 Label elements

OSHA HCS 2012



Hazard statements •	Causes severe skin burns and eye damage H314 Causes serious eye damage - H318 Suspected of causing cancer H351 May damage fertility or the unborn child H360 Causes damage to organs - nervous system/blood/liver/kidneys through prolonged or repeated exposure - H372
Precautionary statements	
Prevention • Response •	Obtain special instructions before use P201 Do not handle until all safety precautions have been read and understood P202 Do not breathe mist/vapours/spray P260 Wash thoroughly after handling P264 Do not eat, drink or smoke when using this product P270 Wear protective gloves/protective clothing/eye protection/face protection P280 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for
	breathing P304+P340 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower P303+P361+P353 Immediately call a POISON CENTER or doctor/physician P310 Specific treatment, see supplemental first aid information P321 Wash contaminated clothing before reuse P363 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing P305+P351+P338 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting P301+P330+P331 IF exposed or concerned: Get medical advice/attention P308+P313 Get medical advice/attention if you feel unwell P314
Storage/Disposal •	Store locked up P405 Dispose of content and/or container in accordance with local, regional, national, and/or international regulations P501
2.3 Other hazards	
OSHA HCS 2012 •	Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

2.1 Classification of the substance or mixture

WHMIS

Very Toxic - D1A Other Toxic Effects - D2A Corrosive - E

•

2.2 Label elements WHMIS



• Very Toxic - D1A Other Toxic Effects - D2A Corrosive - E

2.3 Other hazards WHMIS

In Canada, the product mentioned above is considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).

2.4 Other information

 Acid batteries used in APC by Schneider Electric Replacement Battery Cartridges (RBCs) are contained within cartridges and are sealed, non-spillable design. Under normal use and handling, there is no contact with the internal components of the battery or the chemical hazards. Under normal use and handling, these products do not emit regulated or hazardous substances. Misuse of the product, such as overcharging, may result in a discharge of battery electrolyte. Classification provided are for the battery electrolyte and are only applicable in the event that the electrolyte is discharged.

See Section 12 for Ecological Information.

Section 3 - Composition/Information on Ingredients

3.1 Substances

• Material does not meet the criteria of a substance in accordance with Regulation (EC) No 1272/2008.

3.2 Mixtures

Composition				
Chemical Name	Identifiers	% LD50/LC50 Classifications According to Regulation/Dir		Classifications According to Regulation/Directive
Lead	CAS :7439-92-1 EC Number: 231- 100-4	55.9% TO 63.4%	NDA	EU DSD/DPD: Annex I: Xn; R20/22; Repr. Cat. 1; R60/61; R48/22; N; R50-53 EU CLP: Annex VI: Acute Tox. 4 *, H332; Acute Tox. 4 *, H302; Repr. 1A, H360df; STOT RE 2 *, H373; Aquatic Acute 1, H400; Aquatic Chronic 1, H410 OSHA HCS 2012: Repr. 1A; STOT RE 1 (Liver, Kidney, Blood, Nervous system); Carc. 2
Sulfuric acid	CAS :7664-93-9 EC Number: 231- 639-5	15.8% TO 20.5%	Inhalation-Rat LC50 • 510 mg/m ³ 2 Hour(s) Ingestion/Oral-Rat LD50 • 2140 mg/kg	EU DSD/DPD: Annex VI, Table 3.2: C; R35 EU CLP: Annex VI, Table 3.1: Skin Corr. 1A; H314 OSHA HCS 2012: Eye Dam. 1; Skin Corr. 1A
1-Propene, homopolymer	CAS :9003-07-0	4.8% TO 12.3%	Ingestion/Oral-Rat LD50 • >8 g/kg	EU DSD/DPD: Not Classified EU CLP: Not Classified OSHA HCS 2012: Not Classified

Amorphous/fused silica	CAS:60676-86-0 EINECS:262- 373-8	3.7% TO 5.6%	NDA	EU DSD/DPD: Not Classified EU CLP: Not Classified OSHA HCS 2012: Not Classified	
Polyvinyl Chloride	CAS:9002-86-2	2.6%	% NDA EU DSD/DPD: Not Classified BU CLP: Not Classified OSHA HCS 2012: Not Classified		
Copper	CAS: 7440-50-8 EC Number: 231- 159-6	ber:231- 2.6% NDA EU CLP: Self Classified: Repr. 2, H361; Eye Irrit. STOT SE 3: Resp. Irrit., H335 OSHA HCS 2012: Repr. 2, STOT SE 3: Resp. Irrit.		OSHA HCS 2012: Repr. 2, STOT SE 3: Resp. Irrit.; Eye Irrit.	
Steel	NDA 0.4% NDA EU DSD/DPD: Not Classified EU CLP: Not Classified OSHA HCS 2012: Not Classified		EU CLP: Not Classified		
Tin	CAS: 7440-31-5 EINECS: 231- 141-8	0.3%	NDA	 EU DSD/DPD: Self Classified: Xi R38; T; R48/26; Xn, R48/20 EU CLP: Self Classified: STOT SE 3: Resp. Irrit., H335; STOT RE 2 (Lungs, Inhalation), H373; STOT RE 1 (CNS, Liver, Kidney), H372 OSHA HCS 2012: STOT SE 3: Resp. Irrit.; STOT RE 2 (Lungs, Inhalation); STOT RE 1 (CNS, Liver, Kidney) 	
Polycarbonate	CAS: 25037-45-0	0.1%	NDA	EU DSD/DPD: Not Classified EU CLP: Not Classified OSHA HCS 2012: Not Classified	

See Section 11 for Toxicological Information. See Section 16 for full text of H-statements and R-phrases.

Section 4 - First Aid Measures

4.1 Description of first aid measures

Inhalation	• IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. Do not use mouth-to-mouth method if victim inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.
Skin	• IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash before reuse. If signs/symptoms develop, get medical attention.
Eye	• IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If signs/symptoms develop, get medical attention.
Ingestion	• Do NOT induce vomiting. If conscious, drink large quantities of milk or water. Follow with milk of magnesia, beaten egg, egg whites or vegetable oil. Get medical attention immediately.
4.2 Most important symp	toms and effects, both acute and delayed
	Refer to Section 11 - Toxicological Information.
4.3 Indication of any imm	ediate medical attention and special treatment needed
Notes to Physician	• All treatments should be based on observed signs and symptoms of distress in the

patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Section 5 - Firefighting Measures

5.1 Extinguishing media

Suitable Extinguishing Media .	Dry chemical or CO2.
Unsuitable Extinguishing	Water should not be used unless from a safe distance due to vigorous and exothermic

Media	reaction which will result.
5.2 Special hazards arisi	ng from the substance or mixture
Unusual Fire and Explosion Hazards	 Hydrogen and oxygen gases are produced during normal battery operation and charging. These gases escape through the battery vents and may form an explosive atmosphere around the battery if ventilation is poor. Avoid open flame, sparks and other ignition sources in areas where batteries are used or stored.
Hazardous Combustion Products	 Acid mists and vapors, toxic fumes from burning plastic.
5.3 Advice for firefighters	8
	 Fire fighters should wear complete protective clothing including self-contained breathing apparatus. Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

and self-contained breathing apparatus.

or resonal preseations, precedite equipment and emergency procedures				
Personal Precautions	 Do not walk through spilled material. Wear appropriate personal protective equipment, avoid direct contact. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate enclosed areas. Do not get in eyes, on skin, or on clothing. Do not breathe dusts or mists. 			
Emergency Procedures	 As an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions. Keep unauthorized personnel away. Do not get water inside container. 			
6.2 Environmental prec	cautions			
	 Avoid run off to waterways and sewers. 			
6.3 Methods and mater	ial for containment and cleaning up			
Containment/Clean-up Measures	 Stop leak if you can do it without risk. If battery is leaking, place battery in a heavy duty plastic bag. Contain spill by diking with soda ash, etc. Neutralize spill area with (soda ash or lime, dilute with acetic acid) 			

6.4 Reference to other sections

Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Make certain mixture is neutral then collect residue and place in a drum or other

Fire fighters to wear acid-resistant full protective clothing, including rubber footwear

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling

- Use only in well ventilated areas. Use caution when combining with water; DO NOT add water to corrosive liquid, ALWAYS add corrosive liquid to water while stirring to prevent release of heat, steam and fumes. Wear appropriate personal protective equipment, avoid direct contact. Do not get in eyes, on skin, or on clothing. Do not breathe mist, vapors, spray. Avoid direct conductive connection across positive and negative terminals to prevent short circuit. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco.

7.2 Conditions for safe storage, including any incompatibilities

suitable container.

Storage

Batteries should be kept in an upright position away from ignition sources. Stack batteries so as to prevent accidental contact between terminal and/or other damage to terminals or containers. Whenever feasible, store on shipping pallet or rack. Do not stack loaded pallets or racks on top of other batteries. Store in a cool/lowtemperature, well-ventilated place. Avoid storage in areas exposed to heat or solar

buildup.

7.3 Specific end use(s)

• Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

Exposure Limits/Guidelines						
	Result	ACGIH	OSHA			
Tin (7440-31-5)	TWAs	2 mg/m3 TWA	2 mg/m3 TWA	Not established		
Copper (7440-50-8)	TWAs	0.2 mg/m3 TWA (fume)	1 mg/m3 TWA (dust and mist); 0.1 mg/m3 TWA (fume)	0.1 mg/m3 TWA (fume); 1 mg/m3 TWA (dust and mist)		
Polyvinyl Chloride (9002-86-2)	TWAs	1 mg/m3 TWA (respirable fraction)	Not established	Not established		
Sulfuric acid (7664-93-9)	TWAs	0.2 mg/m3 TWA (thoracic fraction)	1 mg/m3 TWA	1 mg/m3 TWA		
Lead as Lead, inorganic compounds	TWAs	0.05 mg/m3 TWA	0.050 mg/m3 TWA	50 μg/m3 TWA		

8.2 Exposure controls

Engineering Measures/Controls Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Personal Protective Equipment

reisonal riolective Lyupmen	L
Respiratory	 Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or symptoms are experienced.
Eye/Face	 Wear eye/face protection - Chemical splash goggles, or - Full-face shield with safety glasses
Skin/Body	 Acid resistant clothing with rubber/neoprene boots for major spill clean-up. Acid resistant gloves such as rubber, neoprene, vinyl coated, PVC.
Environmental Exposure Controls	 Controls should be engineered to prevent release to the environment, including procedures to prevent spills, atmospheric release and release to waterways. Follow best practice for site management and disposal of waste.

Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene

NIOSH = National Institute of Occupational Safety and Health

OSHA = Occupational Safety and Health Administration

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

Section 9 - Physical and Chemical Properties

9.1 Information on Physical and Chemical Properties

Material Description				
Physical Form	Solid	Appearance/Description	Shaped article.	
Color	Data lacking	Odor	Data lacking	

Odor Threshold	Data lacking			
General Properties	•	•	•	
Boiling Point	Data lacking	Melting Point	Data lacking	
Decomposition Temperature	Data lacking	рН	Data lacking	
Specific Gravity/Relative Density	Data lacking	Water Solubility	Data lacking	
Viscosity	Data lacking	Explosive Properties	Not explosive.	
Oxidizing Properties:	Not an oxidizer.			
Volatility	•	•	•	
Vapor Pressure	Data lacking	Vapor Density	Data lacking	
Evaporation Rate	Data lacking			
Flammability	-			
Flash Point	Data lacking	UEL	Data lacking	
LEL	Data lacking	Autoignition	Data lacking	
Flammability (solid, gas)	Not flammable.			
Environmental				
Octanol/Water Partition coefficient	Data lacking			

9.2 Other Information

• No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

• No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

• Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

• No data available

10.4 Conditions to avoid

• Use only approved charging methods. Avoid overcharging. Avoid shortcircuiting. Avoid sparks and other ignition sources. Do not open, break or melt the casing.

10.5 Incompatible materials

• Strong oxidizing or reducing agents.

10.6 Hazardous decomposition products

 Can emit highly toxic fumes when heated. Combustion can produce carbon dioxide and carbon monoxide. Will release an explosive hydrogen/oxygen gas mixture. Oxides of lead, lead and/or lead compounds may be released. Sulfuric acid may release sulfur dioxide and/or sulfur trioxide.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

	Components				
(15.8% TO	7664- 93-9	Acute Toxicity: Ingestion/Oral-Rat LD50 • 2140 mg/kg; Inhalation-Rat LC50 • 510 mg/m ³ 2 Hour(s); Irritation: Eye-Rabbit • 250 μg • Severe irritation; Multi-dose Toxicity: Inhalation-Rat TCLo • 1.8 mg/m ³ 24 Hour(s) 65 Day(s)-Continuous; <i>Peripheral Nerve and</i> <i>Sensation</i> :Recording from peripheral motor nerve; <i>Kidney, Ureter, and Bladder</i> :Changes in both tubules and glomeruli			

Polyvinyl Chloride (2.6%)	9002- 86-2	Tumorigen / Carcinogen: Ingestion/Oral-Rat TDLo • 210 g/kg 30 Week(s)-Continuous; <i>Tumorigenic</i> :Equivocal tumorigenic agent by RTECS criteria; <i>Lungs, Thorax, or Respiration</i> :Tumors; <i>Skin and Appendages:Other</i> :Tumors
Copper (2.6%)	7440- 50-8	Reproductive: Ingestion/Oral-Rat TDLo • 152 mg/kg (22W pre); <i>Reproductive Effects:Effects on Embryo or Fetus</i> : Fetotoxicity (except death, e.g., stunted fetus) ; <i>Reproductive Effects:Specific Developmental Abnormalities</i> : Central nervous system

GHS Properties	Classification
Acute toxicity	EU/CLP • Acute Toxicity - Oral 4 - ATEmix = 703.47 mg/kg OSHA HCS 2012 • Classification criteria not met
Aspiration Hazard	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Carcinogenicity	EU/CLP • Classification criteria not met OSHA HCS 2012 • Carcinogenicity 2
Germ Cell Mutagenicity	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Skin corrosion/Irritation	EU/CLP • Skin Corrosion 1A OSHA HCS 2012 • Skin Corrosion 1A
Skin sensitization	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
STOT-RE	EU/CLP • Specific Target Organ Toxicity Repeated Exposure 2 OSHA HCS 2012 • Specific Target Organ Toxicity Repeated Exposure 1
STOT-SE	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Toxicity for Reproduction	EU/CLP • Toxic to Reproduction 1A OSHA HCS 2012 • Toxic to Reproduction 1A
Respiratory sensitization	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Serious eye damage/Irritation	EU/CLP • Classification criteria not met OSHA HCS 2012 • Serious Eye Damage 1

Target Organs

Nervous System, Blood, Liver, Kidney

Inhalation, Skin, Eye, Ingestion

Potential Health Effects Inhalation

Route(s) of entry/exposure

Acute (Immediate)

Lead - For industry, inhalation is much more important than is ingestion. Systemic effects include loss of appetite, anemia, malaise, insomnia, headache, irritability, muscle and joint pains, tremors, flaccid paralysis without anesthesia, hallucinations and distorted perceptions, muscle weakness, gastritis and liver changes. Major organ systems affected are the nervous system, blood system and kidneys. Experimental evidence suggests that blood levels of lead below 10 µg/dL can lower the IQ scores of children. Low levels of lead impair neurotransmission and immune system function and may increase systolic blood pressure. Reversible kidney damage can occur from acute exposure. Sulfuric Acid - Experimental poison by inhalation.

Chronic (Delayed)
 Lead - Chronic exposure can lead to irreversible vascular sclerosis, tubular cell atrophy, interstitial fibrosis, and glomerular sclerosis. Very heavy intoxication can sometimes be detected by formation of a dark line on the gum margins. Sulfuric acid - Repeated or prolonged inhalation of sulfuric acid mist can cause inflammation of the upper respiratory tract, leading to chronic bronchitis. Severe exposure may cause chemical pneumonitis. Erosion of tooth enamel due to strong acid fume exposure has

	been observed in industry. Workers exposed to low concentrations of the vapors gradually lose their sensitivity to its irritating action. Occupational exposures to strong-acid mists containing sulfuric acid have been associated with several respiratory tract cancers. However, there is no animal data supporting the carcinogenicity of sulfuric acid. Sulfuric acid has been found to be non-mutagenic, and in two studies of workers employed in lead acid battery manufacture, no association between sulfuric acid mist exposure and respiratory tract cancers was observed.
Skin	
Acute (Immediate)	 Sulfuric Acid - Extremely irritating, corrosive, and toxic to tissue, resulting in rapid destruction of tissue, causing severe burns. If much skin is involved, exposure is accompanied by shock, collapse and symptoms similar to those seen in severe burns. Repeated contact with dilute solutions can cause dermatitis.
Chronic (Delayed)	 No data available
Eye	
Acute (Immediate)	 Causes serious eye damage.
Chronic (Delayed)	 No data available
Ingestion	
Acute (Immediate)	 Lead - Poison by ingestion in large dosages and with prolonged exposure leading to the same effects as seen in exposure by inhalation. Adults absorb 5-15% of ingested lead and retain less than 5%. Children absorb about 50% and retain about 30%. Sulfuric Acid - Moderately toxic by ingestion.
Chronic (Delayed)	 No data available
Carcinogenic Effects	 Repeated and prolonged exposure may cause cancer.

Carcinogenic Effects				
	CAS	IARC	NTP	
Sulfuric acid	7664-93-9	Group 1-Carcinogenic	Not Listed	
Lead	7439-92-1	Group 2A-Probable Carcinogen	Reasonably Anticipated to be Human Carcinogen	
Lead as Lead Compounds	NDA	Not Listed	Reasonably Anticipated to be Human Carcinogen	
Lead as Lead, inorganic compounds	NDA	Group 2A-Probable Carcinogen	Not Listed	
Reproductive Effects		Lead - Severe toxicity can cause sterility, al	portion, and neonatal mortality and	

Lead - Severe toxicity can cause sterility, abortion, and neonatal mortality and morbidity. Experimental teratogen. Experimental reproductive effects. Pathological lesions have been found on male gonads. Sulfuric Acid - Experimental teratogen.

Section 12 - Ecological Information

12.1 Toxicity

• Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.

12.2 Persistence and degradability

• Material data lacking.

12.3 Bioaccumulative potential

Material data lacking.

12.4 Mobility in Soil

• Material data lacking.

12.5 Results of PBT and vPvB assessment

• PBT and vPvB assessment has not been conducted for this material.

12.6 Other adverse effects

• No studies have been found.

Section 13 - Disposal Considerations

13.1 Waste treatment methods

Product waste

 Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

• Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	NDA	Not regulated	NDA	NDA	NDA
TDG	NDA	Not regulated	NDA	NDA	NDA
IMO/IMDG	NDA	Not regulated	NDA	NDA	NDA
IATA/ICAO	NDA	Not Restricted	NDA	NDA	NDA
user 14.7 Trans according MARPOL Code		 Not relevant. DOT The batteries us electric storage within UPSs, bar materials regula Code of Federal /IMDG APC Replaceab contained within special provisior are exempted from APC Replaceab contained within International Air A67, A164, A183 	eed in APC Replaceable Ba batteries. When shipped in tteries are excepted from th tons because they meet th Regulations, 49 CFR Sect le Battery Cartridges when 0 238.1 & 238.2 therefore a om the hazardous material le Battery Cartridges when 0 UPSs are packaged and of Transportation Association 3 & Packaging Instruction 8 exempted from the hazardous	the original factor ne requirements of e requirements of ion 173.159 for co- in their original fac letermined to be ir re not restricted for category. in their original fac letermined to be ir o (IATA), Special P 372 therefore are r	y packaging or contained the DOT's hazardous 49 CFR 173.159a. See mplete information. ctory packaging or a compliance with IMDG r shipment via sea and ctory packaging or a compliance with the rovisions (S.P.) A48, not restricted for shipment

Section 15 - Regulatory Information

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

SARA Hazard Classifications

Acute, Chronic

	Inventory					
Component	CAS	Canada DSL	Canada NDSL	EU EINECS	EU ELNICS	TSCA
1-Propene, homopolymer	9003-07-0	Yes	No	No	No	Yes

Amorphous/fused silica	60676-86-0	Yes	No	Yes	Yes	Yes
Calcium	7440-70-2	Yes	No	Yes	No	Yes
Copper	7440-50-8	Yes	No	Yes	No	Yes
Lead	7439-92-1	Yes	No	Yes	No	Yes
Polycarbonate	25037-45-0	Yes	No	No	No	Yes
Polyvinyl Chloride	9002-86-2	Yes	No	No	Yes	Yes
Sulfuric acid	7664-93-9	Yes	No	Yes	No	Yes
Tin	7440-31-5	Yes	No	Yes	No	Yes

Canada

bor Canada - WHMIS - Classifications of Substances		
Polycarbonate	25037-45-0	Not Listed
Calcium	7440-70-2	B6, E
• Copper	7440-50-8	Uncontrolled product according to WHMIS classification criteria
Copper as Copper compounds		Not Listed
Polyvinyl Chloride	9002-86-2	Uncontrolled product according to WHMIS classification criteria
Sulfuric acid	7664-93-9	D1A, E (including >51%, <=51%)
• Lead	7439-92-1	D2A
Lead as Lead compounds		Not Listed
 Lead as Lead, inorganic compounds 		Not Listed
• Tin	7440-31-5	Uncontrolled product according to WHMIS classification criteria
Tin as Tin compounds		Not Listed
Amorphous/fused silica	60676-86-0	Uncontrolled product according to WHMIS classification criteria
 1-Propene, homopolymer 	9003-07-0	Uncontrolled product according to WHMIS classification criteria
Canada - WHMIS - Ingredient Disclosure List		
Polycarbonate	25037-45-0	Not Listed
Calcium	7440-70-2	Not Listed
• Copper	7440-50-8	1 %
Copper as Copper compounds		1 %
Polyvinyl Chloride	9002-86-2	Not Listed
Sulfuric acid	7664-93-9	1 %
• Lead	7439-92-1	0.1 %
Lead as Lead compounds		Not Listed
 Lead as Lead, inorganic compounds 		1 %
• Tin	7440-31-5	1 %
 Tin as Tin compounds 		1 %
 Amorphous/fused silica 	60676-86-0	1 %
 1-Propene, homopolymer 	9003-07-0	Not Listed

Environment Canada - 2004 NPRI (National Pollutant Release Inventory)		
Polycarbonate	25037-45-0	Not Listed
Calcium	7440-70-2	Not Listed
• Copper	7440-50-8	Part 1, Group 1 Substance
Copper as Copper compounds	7440 00 0	Part 1, Group 1 Substance
Polyvinyl Chloride	9002-86-2	Not Listed
Sulfuric acid	7664-93-9	Part 1, Group 1 Substance
		Part 1, Group 4 Substance (Does not include lead
• Lead	7439-92-1	contained in stainless steel, brass, or bronze alloys) Part 1, Group 4 Substance
Lead as Lead compounds		(Does not include lead compounds contained in stainless steel, brass, or bronze alloys)
 Lead as Lead, inorganic compounds 		Not Listed
• Tin	7440-31-5	Not Listed
• Tin as Tin compounds		Not Listed
Amorphous/fused silica	60676-86-0	Not Listed
1-Propene, homopolymer	9003-07-0	Not Listed
Canada - 2005 NPRI (National Pollutant Release Inventory)		
Polycarbonate	25037-45-0	Not Listed
Calcium	7440-70-2	Not Listed
• Copper	7440-50-8	Part 1, Group 1 Substance
 Copper as Copper compounds 		Part 1, Group 1 Substance
Polyvinyl Chloride	9002-86-2	Not Listed
Sulfuric acid	7664-93-9	Part 1, Group 1 Substance
• Lead	7439-92-1	Part 1, Group 4 Substance
Lead as Lead compounds		Part 1, Group 4 Substance
 Lead as Lead, inorganic compounds 		Not Listed
• Tin	7440-31-5	Not Listed
Tin as Tin compounds		Not Listed
 Amorphous/fused silica 	60676-86-0	Not Listed
 1-Propene, homopolymer 	9003-07-0	Not Listed
Canada - CEPA - Greenhouse Gases Subject to Mandatory Reporting		
Polycarbonate	25037-45-0	Not Listed
Calcium	7440-70-2	Not Listed
• Copper	7440-50-8	Not Listed
Copper as Copper compounds		Not Listed
Polyvinyl Chloride	9002-86-2	Not Listed
Sulfuric acid	7664-93-9	Not Listed
• Lead	7439-92-1	Not Listed
Lead as Lead compounds		Not Listed
Lead as Lead, inorganic compounds		Not Listed
• Tin	7440-31-5	Not Listed
Tin as Tin compounds		Not Listed
Amorphous/fused silica	60676-86-0	Not Listed
1-Propene, homopolymer	9003-07-0	Not Listed

Canada - CEPA - Priority Substances List

Polycarbonate	25037-45-0	Not Listed
Calcium	7440-70-2	Not Listed
Copper	7440-50-8	Not Listed
Copper as Copper compounds		Not Listed
Polyvinyl Chloride	9002-86-2	Not Listed
Sulfuric acid	7664-93-9	Not Listed
• Lead	7439-92-1	Not Listed
Lead as Lead compounds		Not Listed
 Lead as Lead, inorganic compounds 		Not Listed
• Tin	7440-31-5	Not Listed
 Tin as Tin compounds 		Not Listed
 Amorphous/fused silica 	60676-86-0	Not Listed
1-Propene, homopolymer	9003-07-0	Not Listed
Canada - DWQ (Drinking Water Quality) - IMACs		
Polycarbonate	25037-45-0	Not Listed
Calcium	7440-70-2	Not Listed
• Copper	7440-50-8	Not Listed
Copper as Copper compounds		Not Listed
Polyvinyl Chloride	9002-86-2	Not Listed
Sulfuric acid	7664-93-9	Not Listed
• Lead	7439-92-1	Not Listed
 Lead as Lead compounds 		Not Listed
 Lead as Lead, inorganic compounds 		Not Listed
• Tin	7440-31-5	Not Listed
Tin as Tin compounds		Not Listed
Amorphous/fused silica	60676-86-0	Not Listed
• 1-Propene, homopolymer	9003-07-0	Not Listed

Other Canada - Accelerated Reduction/Elimination of Toxics (ARE	Т)	
Polycarbonate	25037-45-0	Not Listed
Calcium	7440-70-2	Not Listed
Copper	7440-50-8	Not Listed
Copper as Copper compounds		Not Listed
Polyvinyl Chloride	9002-86-2	Not Listed
Sulfuric acid	7664-93-9	Not Listed
• Lead	7439-92-1	Not Listed
 Lead as Lead compounds 		Not Listed
 Lead as Lead, inorganic compounds 		Not Listed
• Tin	7440-31-5	Not Listed
 Tin as Tin compounds 		Not Listed
 Amorphous/fused silica 	60676-86-0	Not Listed
 1-Propene, homopolymer 	9003-07-0	Not Listed

Canada New Brunswick

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Environment Canada - New Brunswick - Ozone Depleting Substances - Schedule A		
Polycarbonate	25037-45-0	Not Listed
Calcium	7440-70-2	Not Listed
• Copper	7440-50-8	Not Listed
Copper as Copper compounds		Not Listed
Polyvinyl Chloride	9002-86-2	Not Listed

• Sulfuric acid	7664-93-9	Not Listed
• Lead	7439-92-1	Not Listed
Lead as Lead compounds		Not Listed
 Lead as Lead, inorganic compounds 		Not Listed
• Tin	7440-31-5	Not Listed
Tin as Tin compounds		Not Listed
Amorphous/fused silica	60676-86-0	Not Listed
1-Propene, homopolymer	9003-07-0	Not Listed
Canada - New Brunswick - Ozone Depleting Substances - Schedule B		
Polycarbonate	25037-45-0	Not Listed
• Calcium	7440-70-2	Not Listed
• Copper	7440-50-8	Not Listed
Copper as Copper compounds		Not Listed
Polyvinyl Chloride	9002-86-2	Not Listed
Sulfuric acid	7664-93-9	Not Listed
• Lead	7439-92-1	Not Listed
Lead as Lead compounds		Not Listed
Lead as Lead, inorganic compounds		Not Listed
• Tin	7440-31-5	Not Listed
Tin as Tin compounds		Not Listed
Amorphous/fused silica	60676-86-0	Not Listed
• 1-Propene, homopolymer	9003-07-0	Not Listed

United States

Polycarbonate	25037-45-0	Not Listed
Calcium	7440-70-2	Not Listed
• Copper	7440-50-8	Not Listed
Copper as Copper compounds		Not Listed
Polyvinyl Chloride	9002-86-2	Not Listed
Sulfuric acid	7664-93-9	Not Listed
• Lead	7439-92-1	Not Listed
 Lead as Lead compounds 		Not Listed
Lead as Lead, inorganic compounds		Not Listed
• Tin	7440-31-5	Not Listed
Tin as Tin compounds		Not Listed
Amorphous/fused silica	60676-86-0	Not Listed
 1-Propene, homopolymer 	9003-07-0	Not Listed
U.S OSHA - Specifically Regulated Chemicals		
Polycarbonate	25037-45-0	Not Listed
Calcium	7440-70-2	Not Listed
• Copper	7440-50-8	Not Listed
 Copper as Copper compounds 		Not Listed
Polyvinyl Chloride	9002-86-2	Not Listed
Sulfuric acid	7664-93-9	Not Listed
• Lead	7439-92-1	30 μg/m3 Action Level (See CFR 1910.1025); 50 μg/m3 TWA (See 29 CFR 1910.102
Lead as Lead compounds		Not Listed
		30 µg/m3 Action Level (See

Lead as Lead, inorganic compounds		CFR 1910.1025, as Pb); 50 µg/m3 TWA (See 29 CFR 1910.1025, as Pb)
• Tin	7440-31-5	Not Listed
Tin as Tin compounds		Not Listed
Amorphous/fused silica	60676-86-0	Not Listed
1-Propene, homopolymer	9003-07-0	Not Listed

Environment		
U.S CAA (Clean Air Act) - 1990 Hazardous Air Pollutants		
Polycarbonate	25037-45-0	Not Listed
Calcium	7440-70-2	Not Listed
Copper	7440-50-8	Not Listed
Copper as Copper compounds		Not Listed
Polyvinyl Chloride	9002-86-2	Not Listed
Sulfuric acid	7664-93-9	Not Listed
• Lead	7439-92-1	Not Listed
Lead as Lead compounds		(including any unique chemical substance that contains Lead as part of its infrastructure)
 Lead as Lead, inorganic compounds 		Not Listed
• Tin	7440-31-5	Not Listed
Tin as Tin compounds		Not Listed
Amorphous/fused silica	60676-86-0	Not Listed
• 1-Propene, homopolymer	9003-07-0	Not Listed
U.S CERCLA/SARA - Hazardous Substances and their Reportable Quantities		
Polycarbonate	25037-45-0	Not Listed
Calcium	7440-70-2	Not Listed
• Copper	7440-50-8	5000 lb final RQ (no reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is >100 μm); 2270 kg final RQ (no
	,	reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is >100 µm)
 Copper as Copper compounds 		Not Listed
Polyvinyl Chloride	9002-86-2	Not Listed
Sulfuric acid	7664-93-9	1000 lb final RQ; 454 kg final RQ
		10 lb final RQ (no reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is >100
• Lead	7439-92-1	μ m); 4.54 kg final RQ (no reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is >100 μ m)
Lead as Lead compounds		Not Listed
Lead as Lead, inorganic compounds		Not Listed

• Tin	7440-31-5	Not Listed
Tin as Tin compounds		Not Listed
Amorphous/fused silica	60676-86-0	Not Listed
1-Propene, homopolymer	9003-07-0	Not Listed
U.S CERCLA/SARA - Radionuclides and Their Reportable Quantities		
Polycarbonate	25037-45-0	Not Listed
Calcium	7440-70-2	Not Listed
• Copper	7440-50-8	Not Listed
Copper as Copper compounds		Not Listed
Polyvinyl Chloride	9002-86-2	Not Listed
Sulfuric acid	7664-93-9	Not Listed
• Lead	7439-92-1	Not Listed
Lead as Lead compounds		Not Listed
Lead as Lead, inorganic compounds		Not Listed
• Tin	7440-31-5	Not Listed
Tin as Tin compounds		Not Listed
Amorphous/fused silica	60676-86-0	Not Listed
1-Propene, homopolymer	9003-07-0	Not Listed
U.S CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQ)s	
Polycarbonate	25037-45-0	Not Listed
Calcium	7440-70-2	Not Listed
• Copper	7440-50-8	Not Listed
Copper as Copper compounds	1440 00 0	Not Listed
Polyvinyl Chloride	9002-86-2	Not Listed
Sulfuric acid	7664-93-9	1000 lb EPCRA RQ
• Lead	7439-92-1	Not Listed
Lead as Lead compounds	1+00-02-1	Not Listed
Lead as Lead, inorganic compounds		Not Listed
Tin	7440-31-5	Not Listed
Tin as Tin compounds	1 - 10 01 0	Not Listed
Amorphous/fused silica	60676-86-0	Not Listed
• 1-Propene, homopolymer	9003-07-0	Not Listed
U.S. OEDCI A/CARA, Continu 200 Entermoly Herondove Sylectoress TROS		
U.S CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs	25027 45 0	Notliotod
Polycarbonate	25037-45-0	Not Listed Not Listed
• Calcium	7440-70-2 7440-50-8	
• Copper	7440-50-6	Not Listed
Copper as Copper compounds Patrained Chlorida	0000 00 0	Not Listed
Polyvinyl Chloride	9002-86-2	Not Listed
• Sulfuric acid	7664-93-9	1000 lb TPQ
• Lead	7439-92-1	Not Listed
Lead as Lead compounds		Not Listed
Lead as Lead, inorganic compounds	7440.04.5	Not Listed
• Tin	7440-31-5	Not Listed
• Tin as Tin compounds	00070 00 0	Not Listed
Amorphous/fused silica	60676-86-0	Not Listed
1-Propene, homopolymer	9003-07-0	Not Listed
U.S CERCLA/SARA - Section 313 - Emission Reporting		
Polycarbonate	25037-45-0	Not Listed
Calcium		Not Listed

• Copper	7440-50-8	1.0 % de minimis concentration
• Copper as Copper compounds		1.0 % de minimis concentration (This category does not include CAS numbers 147-14-8, 1328-53-6, or 14302-13-7, or copper phthalocyanine compounds that are substituted with only hydrogen and/or chlorine and/or bromine.)
Polyvinyl Chloride	9002-86-2	Not Listed 1.0 % de minimis
• Sulfuric acid	7664-93-9	concentration (acid aerosols including mists, vapors, gas, fog, and other airborne forms of any particle size)
• Lead	7439-92-1	0.1 % Supplier notification limit; 0.1 % de minimis concentration (when contained in stainless steel, brass, or bronze)
Lead as Lead compounds		Not Listed
Lead as Lead, inorganic compounds		0.1 % Supplier notification limit (Chemical Category N420)
• Tin	7440-31-5	Not Listed
Tin as Tin compounds		Not Listed
 Amorphous/fused silica 	60676-86-0	Not Listed
 1-Propene, homopolymer 	9003-07-0	Not Listed
U.S CERCLA/SARA - Section 313 - PBT Chemical Listing		
Polycarbonate	25037-45-0	Not Listed
• Calcium	7440-70-2	Not Listed
• Copper	7440-50-8	Not Listed
Copper as Copper compounds		Not Listed
Polyvinyl Chloride	9002-86-2	Not Listed
Sulfuric acid	7664-93-9	Not Listed
		100 lb RT (this lower threshold
• Lead	7439-92-1	does not apply to lead when it is contained in stainless steel, brass or bronze alloy)
Lead as Lead compounds		100 lb RT
Lead as Lead, inorganic compounds		Not Listed
• Tin	7440-31-5	Not Listed
Tin as Tin compounds		Not Listed
Amorphous/fused silica	60676-86-0	Not Listed
	9003-07-0	

United States - California

Environment U.S California - Proposition 65 - Carcinogens List		
Polycarbonate	25037-45-0	Not Listed
Calcium	7440-70-2	Not Listed
Copper	7440-50-8	Not Listed
Copper as Copper compounds		Not Listed
Polyvinyl Chloride	9002-86-2	Not Listed
Sulfuric acid	7664-93-9	Not Listed

• Lead	7439-92-1	carcinogen, initial date 10/1/92
Lead as Lead compounds		carcinogen, initial date 10/1/92
 Lead as Lead, inorganic compounds 		Not Listed
• Tin	7440-31-5	Not Listed
Tin as Tin compounds		Not Listed
 Amorphous/fused silica 	60676-86-0	Not Listed
1-Propene, homopolymer	9003-07-0	Not Listed
U.S California - Proposition 65 - Developmental Toxicity		
Polycarbonate	25037-45-0	Not Listed
Calcium	7440-70-2	Not Listed
• Copper	7440-50-8	Not Listed
Copper as Copper compounds		Not Listed
Polyvinyl Chloride	9002-86-2	Not Listed
Sulfuric acid	7664-93-9	Not Listed
• Lead	7439-92-1	developmental toxicity, initial date 2/27/87
Lead as Lead compounds		Not Listed
Lead as Lead, inorganic compounds		developmental toxicity, initial date 2/27/87
• Tin	7440-31-5	Not Listed
Tin as Tin compounds	7440-31-3	Not Listed
Amorphous/fused silica	60676-86-0	Not Listed
• 1-Propene, homopolymer	9003-07-0	Not Listed
	3003-07-0	NOT LISTED
U.S California - Proposition 65 - Maximum Allowable Dose Levels (MADL)		
Polycarbonate	25037-45-0	Not Listed
• Calcium	7440-70-2	Not Listed
Copper	7440-50-8	Not Listed
Copper as Copper compounds		Not Listed
Polyvinyl Chloride	9002-86-2	Not Listed
Sulfuric acid	7664-93-9	Not Listed
• Lead	7439-92-1	0.5 μg/day MADL
Lead as Lead compounds		Not Listed
Lead as Lead, inorganic compounds		Not Listed
• Tin	7440-31-5	Not Listed
Tin as Tin compounds		Not Listed
Amorphous/fused silica	60676-86-0	Not Listed
1-Propene, homopolymer	9003-07-0	Not Listed
U.S California - Proposition 65 - No Significant Risk Levels (NSRL)		
Polycarbonate	25037-45-0	Not Listed
Calcium	7440-70-2	Not Listed
• Copper	7440-50-8	Not Listed
Copper as Copper compounds		Not Listed
Polyvinyl Chloride	9002-86-2	Not Listed
Sulfuric acid	7664-93-9	Not Listed
• Lead	7439-92-1	15 μg/day NSRL (oral)
Lead as Lead compounds		Not Listed
 Lead as Lead, inorganic compounds 		Not Listed
• Tin	7440-31-5	Not Listed
Tin as Tin compounds		Not Listed
Amorphous/fused silica	60676-86-0	Not Listed
1-Propene, homopolymer	9003-07-0	Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

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Polycarbonate	25037-45-0	Not Listed
Calcium	7440-70-2	Not Listed
Copper	7440-50-8	Not Listed
Copper as Copper compounds		Not Listed
Polyvinyl Chloride	9002-86-2	Not Listed
Sulfuric acid	7664-93-9	Not Listed
• Lead	7439-92-1	female reproductive toxicity, initial date 2/27/87
Lead as Lead compounds		Not Listed
 Lead as Lead, inorganic compounds 		Not Listed
• Tin	7440-31-5	Not Listed
Tin as Tin compounds		Not Listed
Amorphous/fused silica	60676-86-0	Not Listed
 1-Propene, homopolymer 	9003-07-0	Not Listed
U.S California - Proposition 65 - Reproductive Toxicity - Male		
Polycarbonate	25037-45-0	Not Listed
Calcium	7440-70-2	Not Listed
Copper	7440-50-8	Not Listed
 Copper as Copper compounds 		Not Listed
Polyvinyl Chloride	9002-86-2	Not Listed
Sulfuric acid	7664-93-9	Not Listed
• Lead	7439-92-1	male reproductive toxicity, initial date 2/27/87
Lead as Lead compounds		Not Listed
 Lead as Lead, inorganic compounds 		Not Listed
• Tin	7440-31-5	Not Listed
Tin as Tin compounds		Not Listed
Amorphous/fused silica	60676-86-0	Not Listed
 1-Propene, homopolymer 	9003-07-0	Not Listed

15.2 Chemical Safety Assessment

• No Chemical Safety Assessment has been carried out.

15.3 Other Information

• WARNING: This product contains a chemical known to the State of California to cause cancer, birth defects, or other reproductive harm.

Section 16 - Other Information

Relevant Phrases (code & full text)

	 H319 - Causes serious eye irritation H332 - Harmful if inhaled H335 - May cause respiratory irritation H361 - Suspected of damaging fertility or the unborn child. H372 - Causes damage to organs through prolonged or repeated exposure.
Last Revision Date	 R36/37 - Irritating to eyes and respiratory system. R38 - Irritating to skin. R48/20 - Harmful: danger of serious damage to health by prolonged exposure through inhalation. R63 - Possible risk of harm to the unborn child. 23/May/2014

Preparation Date Disclaimer/Statement of Liability	 23/May/2014 Every endeavor has been made to ensure that the information contained in this publication is reliable and offered in good faith. It is meant to describe the safety requirements of our products and should not be construed as guaranteeing specific properties. Customers are encouraged to conduct their own tests as end user suitability of the product for particular uses is beyond our control. The information is not intended as an inducement to bargain and no warranty expressed or implied is made as to its accuracy, reliability or completeness. Schneider Electric Incorporated accepts no liability for loss, injury or damage arising from reliance upon the information contained in this data sheet except in conjunction with the proper use of the product to which it refers. Due care should be taken that the use and disposal of this product is in compliance with appropriate Federal, State and Local Government regulations.
Key to abbreviations NDA = No Data Available	



Компания «Океан Электроники» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Поставка оригинальных импортных электронных компонентов напрямую с производств Америки, Европы и Азии, а так же с крупнейших складов мира;

- Широкая линейка поставок активных и пассивных импортных электронных компонентов (более 30 млн. наименований);

- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Помощь Конструкторского Отдела и консультации квалифицированных инженеров;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Поставка электронных компонентов под контролем ВП;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;

- При необходимости вся продукция военного и аэрокосмического назначения проходит испытания и сертификацию в лаборатории (по согласованию с заказчиком):

- Поставка специализированных компонентов военного и аэрокосмического уровня качества (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Actel, Aeroflex, Peregrine, VPT, Syfer, Eurofarad, Texas Instruments, MS Kennedy, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Компания «Океан Электроники» является официальным дистрибьютором и эксклюзивным представителем в России одного из крупнейших производителей разъемов военного и аэрокосмического назначения «JONHON», а так же официальным дистрибьютором и эксклюзивным представителем в России производителя высокотехнологичных и надежных решений для передачи СВЧ сигналов «FORSTAR».



«JONHON» (основан в 1970 г.)

Разъемы специального, военного и аэрокосмического назначения:

(Применяются в военной, авиационной, аэрокосмической, морской, железнодорожной, горно- и нефтедобывающей отраслях промышленности)

«FORSTAR» (основан в 1998 г.)

ВЧ соединители, коаксиальные кабели, кабельные сборки и микроволновые компоненты:

(Применяются в телекоммуникациях гражданского и специального назначения, в средствах связи, РЛС, а так же военной, авиационной и аэрокосмической отраслях промышленности).



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