Safety data sheet
according to UK REACH

Printing date 17.12.2025 Version number 1 Revision: 04.02.2025

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

· **Product identifier**

· **Trade name: VALO™ X Rechargeable Lithium-Ion Battery**

· **Article number:** SDS 471-001.02R01, 5437
· **Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
· **Application of the substance / the mixture** Battery

· **Details of the supplier of the safety data sheet**
· **Manufacturer/Supplier:**
Manufactured by GlobTek, Inc. for
Ultradent Products Inc.
505 W. Ultradent Drive (10200 S)
South Jordan, UT 84095-3942
USA
onlineordersupport@ultradent.com
(800) 552-5512

EC Responsible Person
Ultradent Products GmbH
Am Westhover Berg 30
51149 Cologne Germany
Email: infoDE@ultradent.com
Office Phone: +49(0)2203-35-92-0

· **Further information obtainable from:** Customer Service
· **Emergency telephone number:**
CHEMTREC (NORTH AMERICA) : +1 (800) 424-9300
(INTERNATIONAL) : +(703) 527-3887

2 Hazards identification

· **Classification of the substance or mixture**
· **Classification according to Regulation (EC) No 1272/2008**

GHS09 environment

Aquatic Chronic 1 H410 Very toxic to aquatic life with long lasting effects.
· **Additional information:**
Emergency Overview Safety Data Sheets (SDS) are a sub-requirement of the Occupational Safety and Health Administration (OSHA) Hazard Communication Standard, 29 CFR Subpart 1910.1200. This Hazard Communication Standard does not apply to various subcategories including anything defined by OSHA as an "article". OSHA has defined "article" as a manufactured item other than a fluid or particle; (i) which is formed to a specific shape or design during manufacture; (ii) which has end use function(s) dependent in whole or in part upon its shape or design during end use; and (iii) which under normal conditions of use does not release more than very small quantities, e.g. minute or trace amounts of hazardous chemical, and does not pose a physical hazard or health risk to employees. Because all of our batteries are defined as "articles", they are exempt from the requirements of the Hazard Communication Standard, hence an SDS is not required. However, this Safety Data Sheet (SDS) contains valuable information critical to the safe handling and proper use of this product. This SDS should be retained and available for employees and other users of this product.

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Trade name: VALO™ X Rechargeable Lithium-Ion Battery

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· **Label elements**
· **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the GB CLP regulation.
· **Hazard pictograms** GHS09
· **Signal word** Warning
· **Hazard statements**
H410 Very toxic to aquatic life with long lasting effects.
· **Precautionary statements**
P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
P103 Read carefully and follow all instructions.
P273 Avoid release to the environment.
P391 Collect spillage.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

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3 Composition/information on ingredients

· **Mixtures**
· **Description:** Mixture of substances listed below with nonhazardous additions.

· **Dangerous components:**		
CAS: 21324-40-3 EINECS: 244-334-7	Lithium Hexaflurophosphate Acute Tox. 3, H311; Acute Tox. 4, H302	>10-≤25%
CAS: 7440-50-8 EINECS: 231-159-6	Copper Foil Aquatic Chronic 2, H411	≥2.5-<10%
CAS: 7440-02-0 EINECS: 231-111-4	nickel Carc. 2, H351; STOT RE 1, H372; Skin Sens. 1, H317	≥0.1-<1%

· **Additional information:**
The chemicals listed in section 3 are contained in a sealed container. Risk of exposure only occurs if battery is mechanically, thermally, or electrically abused.
For the wording of the listed hazard phrases refer to section 16.

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4 First aid measures

· **Description of first aid measures**
· **General information:**
The following information applies if the battery is mechanically, thermally or electrically abused.
· **After inhalation:**
If symptoms are experienced, remove source of contamination or move victim to fresh air. Get medical attention.
· **After skin contact:**
Flush affected area with lukewarm water for at least 30 minutes. If skin irritation persists, call a physician.
· **After eye contact:**
Immediately flush eyes with water for 30 minutes while lifting the upper and lower lids. Get medical attention.
· **After swallowing:**
Do not induce vomiting. Call a physician or Poison Control Center. National battery ingestion hotline: 202-625-333
· **Information for doctor:** Treat symptomatically.
· **Most important symptoms and effects, both acute and delayed**
Chemicals may cause burns to skin, eyes, gastrointestinal tract and mucous membranes. Contact with skin may cause chronic eczema or nickel itch. Electrolyte is extremely corrosive to eye tissue and may cause permanent blindness. If swallowed it may cause choking, nausea, persistent vomiting, diarrhea, abdominal pain, dizziness, faintness, unconsciousness, and possible liver and kidney injury.

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

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5 Firefighting measures

· **Extinguishing media**
· **Suitable extinguishing agents:**
Water spray
Foam
Dry powder
· **Special hazards arising from the substance or mixture**
Cells may rupture when exposed to excessive heat. This could result in the release of flammable or corrosive materials. Cells or batteries may flame or leak potentially hazardous organic vapors if exposed to excessive heat or fire. Damaged or opened cells or batteries can result in rapid heating and the release of flammable vapors. Vapors may be heavier than air and may travel along the ground or be moved by ventilation to an ignition source and flash back. LiPF salt contained in the electrolyte released hydrogen fluoride in contact with water.
· **Advice for firefighters:**
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. During water application, caution is advised as burning pieces of flammables particles may be ejected from the fire.
· **Protective equipment:** No special measures required.
· **Additional information** Hazardous Combustion Products: Carbon oxides. Hydrogen fluoride. Phosphrous oxides.

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6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures**
Use personal protective equipment as required. Wear protective gloves. Ventilate affected area.
· **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
· **Methods and material for containment and cleaning up:**
Prevent further leakage or spillage if safe to do so.
Damaged batteries that are NOT hot or burning should be placed in a sealed plastic bag or plastic-lined metal container. If cells rupture and a thermal event follows: using a shovel or broom, cover battery or spilled substances with dry sand or vermiculite, place in approved container (after cooling if necessary).
· **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.

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7 Handling and storage

· **Precautions for safe handling:**
Do not expose battery or cell to extreme temperatures or fire. Do not diassemble, crush or puncture battery. Avoid mechanical or electrical abuse. Do not short circuit. Use only approved charges and charging procedures. Do not disassemble a battery any safety device.
· **Information about fire - and explosion protection:** No special measures required.

· **Conditions for safe storage, including any incompatibilities**
· **Storage:**
· **Requirements to be met by storerooms and receptacles:**
Batteries should be separated from other materials and sotred in a non-combustible, well-ventilated, sprinkler-protected structure with sufficient clearance between walls and battery sacks. Do not place batteries near heating equipment; do not expose to direct sunlight for extended periods. Do not store batteries above 60 degrees Celsuis or below -32 degrees Celsuis. Store batteries in a cool (below 21 degrees Celsuis or 70 degrees Fahrenheit), dry

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area that is subject to little temperature change. Elevated temperatures can result in reduced battery service life. Battery exposure to temperatures in excess of 130 degrees Celsuis will result in the battery venting flammable liquid and gases. Do not store batteries in a manner that allows terminals to short circuit.

· **Information about storage in one common storage facility:** Not required.

· **Further information about storage conditions:**
Packaging Materials: If packing materials are not available, place masking tape on positive and negative ends of the cells.

Incompatible Materials: If leaked, forbidden to contact with strong oxidizers, mineral acids, strong alkalis, halogenated hydrocarbons. Water with internal contents of battery.

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

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8 Exposure controls/personal protection

· **Control parameters**

· **Ingredients with limit values that require monitoring at the workplace:**	
7440-50-8 Copper Foil	
WEL	Short-term value: 2** mg/m³ Long-term value: 0.2* 1** mg/m³ *fume **dusts and mists (as Cu)
7440-02-0 nickel	
WEL	Long-term value: 0.5 mg/m³ as Ni; Sk; Carc

· **Additional information:** The lists valid during the making were used as basis.

· **Exposure controls**

· **Appropriate engineering controls** No further data; see section 7.

· **Individual protection measures, such as personal protective equipment**

· **General protective and hygienic measures:**
The usual precautionary measures are to be adhered to when handling chemicals.

· **Respiratory protection:**
Not required under normal conditions.
In case of battery venting or rupture, use a self contained full face respiratory mask. Refer to 29 CFR 1910.134 for respiratory protection requirements.

· **Hand protection**
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**
The selection of 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 breakthrough 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

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In case of battery rupture or leakage, wear rubber apron and Viton rubber gloves, Protective clothing. Refer to 29 CFR 1910.138 for appropriate skin and body protection.

9 Physical and chemical properties

· **Information on basic physical and chemical properties**	
· **General Information**	
· **Physical state**	Solid
· **Colour:**	According to product specification
· **Odour:**	Not determined
· **Odour threshold:**	Not determined.
· **Melting point/freezing point:**	Undetermined.
· **Boiling point or initial boiling point and boiling range**	Undetermined.
· **Flammability**	Not determined.
· **Lower and upper explosion limit**	
· **Lower:**	Not determined.
· **Upper:**	Not determined.
· **Flash point:**	Not applicable.
· **Decomposition temperature:**	Not determined.
· **pH**	Not applicable.
· **Viscosity:**	
· **Kinematic viscosity**	Not applicable.
· **Dynamic:**	Not applicable.
· **Solubility**	
· **water:**	Insoluble.
· **Partition coefficient n-octanol/water (log value)**	Not determined.
· **Vapour pressure:**	Not applicable.
· **Density and/or relative density**	
· **Density:**	Not determined.
· **Relative density**	Not determined.
· **Vapour density**	Not applicable.

· **Other information**	
· **Appearance:**	
· **Form:**	Geometric, solid object
· **Important information on protection of health and environment, and on safety.**	
· **Ignition temperature:**	Product is not selfigniting.
· **Explosive properties:**	Product does not present an explosion hazard.
· **Change in condition**	
· **Evaporation rate**	Not applicable.

· **Information with regard to physical hazard classes**	
· **Explosives**	Void
· **Flammable gases**	Void
· **Aerosols**	Void
· **Oxidising gases**	Void
· **Gases under pressure**	Void
· **Flammable liquids**	Void
· **Flammable solids**	Void
· **Self-reactive substances and mixtures**	Void
· **Pyrophoric liquids**	Void
· **Pyrophoric solids**	Void

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· **Self-heating substances and mixtures**	Void
· **Substances and mixtures, which emit flammable gases in contact with water**	Void
· **Oxidising liquids**	Void
· **Oxidising solids**	Void
· **Organic peroxides**	Void
· **Corrosive to metals**	Void
· **Desensitised explosives**	Void

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10 Stability and reactivity

· **Reactivity** Not reactive under normal conditions of use.
· **Chemical stability** Stable under recommended conditions.
· **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
· **Possibility of hazardous reactions:** Reacts with water.
· **Conditions to avoid:**
Heat
Mechanical and electrical abuse. Electrical shorting. Battery exposure to temperatures in excess of 130 degrees Celsuis will result in the battery venting flammable liquid and gases.
· **Incompatible materials:**
If leaked, forbidden to contact with strong oxidizers, mineral acids, strong alkalis, halogenated hydrocarbons.
Water with internal contents of battery.
· **Hazardous decomposition products:**
No dangerous decomposition products known.
Hydrogen fluoride
Phosphorous Oxides
Carbon oxides

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11 Toxicological information

· **Information on hazard classes as defined in Regulation (EC) No 1272/2008**
· **Acute toxicity** Based on available data, the classification criteria are not met.

· **LD/LC50 values relevant for classification:**		
ATE (Acute Toxicity Estimates)		
Oral	LD50	>2,500 mg/kg
Dermal	LD50	>1,500 mg/kg

· **Primary irritant effect:**
· **Skin corrosion/irritation**
Irritant effect on the skin
Based on available data, the classification criteria are not met.
· **Serious eye damage/irritation**
Corrosive to eyes and may cause severe damage including blindness
Based on available data, the classification criteria are not met.
· **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** Based on available data, the classification criteria are not met.
· **Reproductive toxicity** Based on available data, the classification criteria are not met.
· **STOT-single exposure** Based on available data, the classification criteria are not met.
· **STOT-repeated exposure** Based on available data, the classification criteria are not met.
· **Aspiration hazard** Based on available data, the classification criteria are not met.

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· **Information on other hazards**

· **Endocrine disrupting properties**

None of the ingredients is listed.

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12 Ecological information

· **Toxicity**
· **Aquatic toxicity:** Very toxic to aquatic life with long lasting effects
· **Persistence and degradability** No further relevant information available.
· **Bioaccumulative potential** No further relevant information available.
· **Mobility in soil** No further relevant information available.
· **Results of PBT and vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.
· **Endocrine disrupting properties** The product does not contain substances with endocrine disrupting properties.
· **Other adverse effects**
· **Additional ecological information:**
· **General notes:**
Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water
Do not allow product to reach ground water, water course or sewage system.
Danger to drinking water if even small quantities leak into the ground.

13 Disposal considerations

· **Waste treatment methods**
· **Recommendation**
Dispose of contents/container in accordance with international, federal, state, and local regulations.

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

14 Transport information

· **UN number or ID number**	
· **ADR, IMDG, IATA**	UN3480
· **UN proper shipping name**	
· **ADR**	3480 LITHIUM ION BATTERIES, ENVIRONMENTALLY HAZARDOUS
· **IMDG, IATA**	LITHIUM ION BATTERIES
· **Transport hazard class(es)**	
· **ADR, IMDG**	
· **Class**	9 Miscellaneous dangerous substances and articles.

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· **Label**	9A
· **IATA**	
	
· **Class**	9 Miscellaneous dangerous substances and articles.
· **Label**	9A
· **Packing group**	
· **ADR, IMDG, IATA**	not regulated
· **Environmental hazards:**	
· **Marine pollutant:**	Symbol (fish and tree)
· **Special marking (ADR):**	Symbol (fish and tree)
· **Special precautions for user**	Warning: Miscellaneous dangerous substances and articles.
· **Hazard identification number (Kemler code):**	-
· **EMS Number:**	F-A,S-I
· **Stowage Category**	A
· **Stowage Code**	SW19 For batteries transported in accordance with SP 376 or SP 377 Category C, unless transported on a short international voyage.
· **Maritime transport in bulk according to IMO instruments**	Not applicable.
· **Transport/Additional information:**	
· **ADR**	
· **Limited quantities (LQ)**	0
· **Excepted quantities (EQ)**	Code: E0 Not permitted as Excepted Quantity
· **Transport category**	2
· **Tunnel restriction code**	E
· **IMDG**	
· **Limited quantities (LQ)**	0
· **Excepted quantities (EQ)**	Code: E0 Not permitted as Excepted Quantity
· **UN "Model Regulation":**	UN 3480 LITHIUM ION BATTERIES, ENVIRONMENTALLY HAZARDOUS

15 Regulatory information

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

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

7440-02-0	nickel

· **Poisons Act**

· **Regulated explosives precursors**

None of the ingredients is listed.

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· **Regulated poisons**
None of the ingredients is listed.

· **Reportable explosives precursors**
None of the ingredients is listed.

· **Reportable poisons**
None of the ingredients is listed.

· **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
· **Qualifying quantity (tonnes) for the application of upper-tier requirements** 200 t
· **Chemical safety assessment:** A chemical safety assessment has not been carried out.

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 from Section 3**
H302 Harmful if swallowed.
H311 Toxic in contact with skin.
H317 May cause an allergic skin reaction.
H351 Suspected of causing cancer.
H372 Causes damage to organs through prolonged or repeated exposure.
H411 Toxic to aquatic life with long lasting effects.

· **Department issuing SDS:** Environmental, Health, and Safety
· **Contact:** Customer Service
· **Abbreviations and acronyms:**
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)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
NIOSH: National Institute for Occupational Safety
ATE: Acute toxicity estimate values
Acute Tox. 4: Acute toxicity – Category 4
Acute Tox. 3: Acute toxicity – Category 3
Skin Sens. 1: Skin sensitisation – Category 1
Carc. 2: Carcinogenicity – Category 2
STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1
Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1
Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2
· ***** Data compared to the previous version altered.**