SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
US OSHA

Revision date 07-Mar-2022 **Supersedes Date:** 05-Oct-2019 **Revision Number** 2.3

1. Identification

Product identifier

Product Name HALOX® XTAIN® L-44

Other means of identification

Product Code(s) 3086

UN/ID no UN3082

Recommended use of the chemical and restrictions on use

Recommended use Tannin stain inhibitor

Restrictions on use Uses other than those recommended.

Details of the supplier of the safety data sheet

Supplier Address
ICL
6530 Schneider Ave
Tel.: +1-219-933-1560
Fax: +1-219-933-1570
Hammond IN 46322, USA
e-mail: msdsinfo@icl-group.com

Emergency telephone number

Emergency Telephone Chemtrec (International): +1 (703) 527-3887

2. Hazard(s) identification

Classification

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2A
Chronic aquatic toxicity	Category 2

Hazards not otherwise classified (HNOC)
Not applicable

Label elements

Warning

Hazard statements
Causes skin irritation
Causes serious eye irritation
Toxic to aquatic life with long lasting effects

Appearance Colourless liquid **Physical state** Liquid **Odor** Ammoniacal

Precautionary Statements - Prevention
Wash face, hands and any exposed skin thoroughly after handling
Wear protective gloves/eye protection/face protection

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
If eye irritation persists: Get medical advice/attention
IF ON SKIN: Wash with plenty of water and soap
If skin irritation occurs: Get medical advice/attention
Take off contaminated clothing and wash it before reuse

Other information
Toxic to aquatic life

3. Composition/information on ingredients

Substance

Not applicable.

Mixture

Chemical name	CAS No	Weight-%	Trade secret
Zinc oxide	1314-13-2	3-6	*
Ammonia	7664-41-7	1-<3	*
Ammonium Zirconium Carbonate	68309-95-5	Proprietary	*
Zirconium Propionate	84057-80-7	Proprietary	*

*The exact percentage (concentration) of composition has been withheld as a trade secret.

Components of this product which are not classified as hazardous under the regulations and guidance relevant to this document are not listed.

4. First-aid measures

Description of first aid measures

General advice Show this safety data sheet to the doctor in attendance.

Inhalation Remove to fresh air. Get medical attention immediately if symptoms occur.

Eye contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area. Get medical attention if irritation develops and persists.

Skin contact Wash off immediately with soap and plenty of water for at least 15 minutes. Get medical attention if irritation develops and persists.

Ingestion Clean mouth with water and drink afterwards plenty of water

Rinse mouth
Never give anything by mouth to an unconscious person
Do NOT induce vomiting
Call a physician

Self-protection of the first aider Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8).

Most important symptoms and effects, both acute and delayed

Symptoms May cause redness and tearing of the eyes. Burning sensation.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically and supportively.

5. Fire-fighting measures

Suitable Extinguishing Media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Specific hazards arising from the chemical May emit toxic fumes under fire conditions.

Hazardous combustion products Carbon dioxide (CO2). Carbon monoxide. Nitrogen oxides (NOx). Ammonia. Zinc oxide fumes.

Explosion data
Sensitivity to mechanical impact None.

Sensitivity to static discharge None.

Special protective equipment and precautions for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Cool containers with water spray. Contain runoff to prevent entry into water or drainage systems.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions Ensure adequate ventilation. Avoid generation of dust. Avoid contact with skin, eyes or clothing. Use personal protective equipment as required.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Pick up and transfer to properly labeled containers.

Reference to other sections See section 8 for more information. See section 13 for more information.

7. Handling and storage

Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Take off

contaminated clothing and wash before reuse.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place.

8. Exposure controls/personal protection

Control parameters

Exposure Limits

Chemical name	ACGIH TLV	OSHA PEL	NIOSH
Zinc oxide 1314-13-2	STEL: 10 mg/m³ respirable particulate matter TWA: 2 mg/m³ respirable particulate matter	TWA: 5 mg/m³ fume TWA: 15 mg/m³ total dust TWA: 5 mg/m³ respirable fraction (vacated) TWA: 5 mg/m³ fume (vacated) TWA: 10 mg/m³ total dust (vacated) TWA: 5 mg/m³ respirable fraction (vacated) STEL: 10 mg/m³ fume	IDLH: 500 mg/m³ Ceiling: 15 mg/m³ dust TWA: 5 mg/m³ dust and fume STEL: 10 mg/m³ fume
Ammonia 7664-41-7	STEL: 35 ppm TWA: 25 ppm	TWA: 50 ppm TWA: 35 mg/m³ (vacated) STEL: 35 ppm (vacated) STEL: 27 mg/m³	IDLH: 300 ppm TWA: 25 ppm TWA: 18 mg/m³ STEL: 35 ppm STEL: 27 mg/m³
Ammonium Zirconium Carbonate 68309-95-5	STEL: 10 mg/m³ Zr TWA: 5 mg/m³ Zr	TWA: 5 mg/m³ Zr (vacated) TWA: 5 mg/m³ Zr (vacated) STEL: 10 mg/m³ Zr	IDLH: 25 mg/m³ Zr TWA: 5 mg/m³ except Zirconium tetrachloride Zr STEL: 10 mg/m³ Zr
Zirconium Propionate 84057-80-7	STEL: 10 mg/m³ Zr TWA: 5 mg/m³ Zr	TWA: 5 mg/m³ Zr (vacated) TWA: 5 mg/m³ Zr (vacated) STEL: 10 mg/m³ Zr	IDLH: 25 mg/m³ Zr TWA: 5 mg/m³ except Zirconium tetrachloride Zr STEL: 10 mg/m³ Zr

Appropriate engineering controls

Engineering controls Showers
Eyewash stations
Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/face protection Tight sealing safety goggles.

Hand protection Wear suitable gloves
Impervious gloves
Natural rubber

Skin and body protection Wear suitable protective clothing. Long sleeved clothing.

Respiratory protection No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

General hygiene considerations Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Avoid contact with skin, eyes or clothing.

9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Colourless liquid
Color	Colourless
Odor	Ammoniacal
Odor threshold	Not determined

Property	**Values**	**Remarks • Method**
pH	9	
Melting point / freezing point	0 °C / 32 °F	
Boiling point / boiling range	100 °C / 212 °F	
Flash point	No data available	None known
Evaporation rate	No data available	
Flammability (solid, gas)	No data available	None known
Flammability Limit in Air		None known
Upper flammability or explosive limits	No data available	
Lower flammability or explosive limits	No data available	
Vapor pressure	No data available	
Vapor density	(AIR = 1)	Not determined
Relative density	1.3 g/cm³	20°C (68°F)
Water solubility	Soluble	
Solubility(ies)	No data available	None known
Partition coefficient	No data available	None known
Autoignition temperature	371 °C / 699.8 °F	Not self-ignitable
Decomposition temperature		
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	

Other information

Explosive properties	Not explosive
Oxidizing properties	Not oxidising
Softening point	No information available
Molecular weight	No information available
VOC content	No information available
Liquid Density	No information available
Bulk density	No information available

10. Stability and reactivity

Reactivity Reacts with oxidizing agents. Reacts with alkalis.

Chemical stability Stable under normal conditions.

Possibility of hazardous reactions Reacts with alkalis releasing ammonia.

Conditions to avoid Incompatible materials.

Incompatible materials Strong acids. Strong bases. Strong oxidizing agents.

Hazardous decomposition products Carbon dioxide (CO2). Carbon monoxide. Ammonia. Zinc oxide fumes. Nitrogen oxides (NOx).

11. Toxicological information

Information on likely routes of exposure

Product Information

Inhalation Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract.

Eye contact Specific test data for the substance or mixture is not available. Causes serious eye irritation. (based on components). May cause redness, itching, and pain.

Skin contact Specific test data for the substance or mixture is not available. Causes skin irritation. (based on components).

Ingestion Specific test data for the substance or mixture is not available. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Redness. May cause redness and tearing of the eyes.

Acute toxicity

Numerical measures of toxicity

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral) 35,162.50 mg/kg
ATEmix (dermal) 11,707.60 mg/kg
ATEmix (inhalation-dust/mist) 18.141 mg/l

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Zinc oxide 1314-13-2	> 2000 mg/kg (Rat)	>2000 mg/kg (Rat)	> 5.7 mg/L (Rat) 4h
Ammonia 7664-41-7	= 350 mg/kg (Rat)	-	= 13770 mg/m³ (Rat) 1 h = 9850 mg/m³ (Rat) 1 h
Ammonium Zirconium Carbonate 68309-95-5	= 2900 mg/kg (Rat)	> 2000 mg/kg (Rat)	-
Zirconium Propionate 84057-80-7	-	-	-

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation Irritating to skin. Classification based on data available for ingredients.

Serious eye damage/eye irritation Causes serious eye irritation. Classification based on data available for ingredients.

Respiratory or skin sensitization 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
The table below indicates whether each agency has listed any ingredient as a carcinogen

Chemical name	ACGIH	IARC	NTP	OSHA
Zinc oxide 1314-13-2	-	-	-	-
Ammonia 7664-41-7	-	-	-	-
Ammonium Zirconium	-	-	-	-

Carbonate 68309-95-5				
Zirconium Propionate 84057-80-7	-	-	-	-

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 Not expected.

Other adverse effects No information available.

12. Ecological information

Note Toxicological data have not been determined specifically for this product. Information given is based on data on the components

Ecotoxicity Toxic to aquatic life with long lasting effects.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Zinc oxide 1314-13-2	LC50:0.63 mg/L (72h, pseudokirchneriella subcapitata)	EC50: 1.1 mg/l (96 h, Oncorrhynchus Mykiss)	-	EC50: >2.0 mg/L (48h, Daphnia)
Ammonia 7664-41-7	-	LC50: 0.26 - 4.6mg/L (96h, Lepomis macrochirus) LC50: 0.73 - 2.35mg/L (96h, Pimephales promelas) LC50: =0.44mg/L (96h, Cyprinus carpio) LC50: =1.17mg/L (96h, Lepomis macrochirus) LC50: =1.19mg/L (96h, Poecilia reticulata) LC50: =5.9mg/L (96h, Pimephales promelas) LC50: >1.5mg/L (96h, Poecilia reticulata)	-	LC50: =25.4mg/L (48h, Daphnia magna)
Ammonium Zirconium Carbonate 68309-95-5	-	LC50: =410mg/L (96h, Oryzias latipes)	-	-
Zirconium Propionate 84057-80-7	-	-	-	-

Persistence and degradability Based on monitoring data, zinc compounds are expected to adsorb to suspended solids and sediment in water.

Bioaccumulation Not expected to bioaccumulate.

Chemical name	Partition coefficient
Zinc oxide 1314-13-2	-
Ammonia 7664-41-7	-
Ammonium Zirconium Carbonate 68309-95-5	-
Zirconium Propionate 84057-80-7	-

Mobility in soil No data available.

Other adverse effects Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.

13. Disposal considerations

Waste treatment methods

Waste from residues/unused products Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Empty containers should be disposed of in accordance with all applicable laws and regulations.

California Hazardous Waste Status This product contains one or more substances that are listed with the State of California as a hazardous waste.

14. Transport information

Note: Materials carried under UN3082 or UN3077 in either single or inner packaging of ≤5L (liquids) or ≤5kg (solids) may be transported as non-dangerous goods, provided they are packed in good quality packaging and adhere to the corresponding general packaging provisions of the above transport legislation.

DOT

UN/ID no	UN3082
Proper shipping name	Environmentally hazardous substance, liquid, n.o.s.
Transport hazard class(es)	9
Packing group	III
Reportable Quantity (RQ)	(Ammonia: RQ (kg)= 45.40) Ammonia: RQ (lb)= 100.00
Reportable quantity kg (calculated)	Ammonia: RQ (kg)= 2389.00
Reportable quantity lbs. (calculated)	Ammonia: RQ (lb)= 5263.00
Special Provisions	8, 146, 173, 335, IB3, T4, TP1, TP29
DOT Marine Pollutant	Np
Marine pollutant	Zinc oxide, Ammonia
Description:	UN3082, Environmentally hazardous substance, liquid, n.o.s. (Zinc oxide, Ammonia), 9, III, Marine pollutant
Emergency Response Guide Number	171

TDG

UN/ID no	UN3082
Proper shipping name	Environmentally hazardous substance, liquid, n.o.s.
Transport hazard class(es)	9
Packing group	III
Special Provisions	16, 99
Marine pollutant name	Zinc oxide, Ammonia.

Description: UN3082, Environmentally hazardous substance, liquid, n.o.s. (Zinc oxide, Ammonia), 9, III

MEX

UN/ID no	UN3082
Proper shipping name	Environmentally hazardous substance, liquid, n.o.s.
Transport hazard class(es)	9
Packing group	III
MEX Technical Name	Zinc oxide, Ammonia
Description:	UN3082, Environmentally hazardous substance, liquid, n.o.s. (Zinc oxide, Ammonia), 9, III
Special Provisions	274, 331, 335

IATA

UN number or ID number	UN3082
UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s.
Transport hazard class(es)	9
Packing group	III
IATA Technical Name	Zinc oxide, Ammonia
Description:	UN3082, Environmentally hazardous substance, liquid, n.o.s. (Zinc oxide, Ammonia), 9, III
Special Provisions	A97, A158, A197

IMDG

UN number or ID number	UN3082
UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s.
Transport hazard class(es)	9
Packing group	III
EmS-No	F-A, S-F
Special Provisions	274, 335, 969
Marine Pollutant	Zinc oxide, Ammonia
Description:	UN3082, Environmentally hazardous substance, liquid, n.o.s. (Zinc oxide, Ammonia), 9, III, Marine pollutant

15. Regulatory information

International Inventories

GHS hazardous component CAS registry numbers appearing in section 3 may differ from substances appearing in section 15 due to country or regional chemical inventory coverage requirements, however, remain in compliance with the inventory
Products that are used as food additives are exempt from listing in international chemical inventories

For further details on the regulatory status for this product in a specific country, please send your inquiry to the following email address: msdsinfo@icl-group.com

Chemical name	TSCA Inventory List Active/Inactive
Zinc oxide 1314-13-2 (3-6)	Present (ACTIVE)
Ammonia 7664-41-7 (1-<3)	Present (ACTIVE)
Ammonium Zirconium Carbonate 68309-95-5 (Proprietary)	Present (ACTIVE)
Zirconium Propionate 84057-80-7 (Proprietary)	Present (ACTIVE)

TSCA	Listed or exempted
DSL	Listed or exempted
ENCS	Not Listed
IECSC	Listed or exempted
KECL	Not Listed
PICCS	Not Listed
AIIC	Listed or exempted

NZIoC	Listed or exempted
TCSI	Listed or exempted
NCI	Listed or exempted
TECI	Listed or exempted
NSQ	Not Listed

Legend:
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL - Canadian Domestic Substances List
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AIIC - Australian Inventory of Industrial Chemicals
NZIoC - New Zealand Inventory of Chemicals
TCSI - Taiwan Chemical Substance Inventory
NCI - Vietnam National Chemicals Inventory
TECI - Thailand Inventory FDA Existing Chemicals
NSQ - Mexico National Inventory of Chemical Substances

US Federal Regulations

Chemical name	**U.S. - TSCA (Toxic Substances Control Act) - Section 5(a)(2) - Chemicals with Significant New Use Rules (SNURs)**
Zinc oxide - 1314-13-2	-
Ammonia - 7664-41-7	-
Ammonium Zirconium Carbonate - 68309-95-5	-
Zirconium Propionate - 84057-80-7	-

SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

Chemical name	SARA 313 - Threshold Values %
Zinc oxide - 1314-13-2	1.0
Ammonia - 7664-41-7	1.0
Ammonium Zirconium Carbonate - 68309-95-5	-
Zirconium Propionate - 84057-80-7	-

SARA 311/312 Hazard Categories
Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

CWA (Clean Water Act)
This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Zinc oxide 1314-13-2	-	X	-	-
Ammonia 7664-41-7	100 lb	-	-	X
Ammonium Zirconium Carbonate 68309-95-5	-	-	-	-
Zirconium Propionate 84057-80-7	-	-	-	-

CERCLA
This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302).

Chemical name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	Reportable Quantity (RQ)
Zinc oxide 1314-13-2	-	-	
Ammonia 7664-41-7	100 lb	100 lb	RQ 100 lb final RQ RQ 45.4 kg final RQ
Ammonium Zirconium Carbonate 68309-95-5	-	-	
Zirconium Propionate 84057-80-7	-	-	

US State Regulations

California Proposition 65
This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Zinc oxide 1314-13-2	X	X	X
Ammonia 7664-41-7	X	X	X
Ammonium Zirconium Carbonate 68309-95-5	-	-	-
Zirconium Propionate 84057-80-7	-	-	-

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. Other information

NFPA	**Health hazards** 3	**Flammability** 1	**Instability** 0	**Special hazards** -
HMIS	**Health hazards** 3	**Flammability** 1	**Physical hazards** 0	**Personal protection** X

Key or legend to abbreviations and acronyms used in the safety data sheet

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation

Key literature references and sources for data used to compile the SDS
Agency for Toxic Substances and Disease Registry (ATSDR)
U.S. Environmental Protection Agency ChemView Database
European Food Safety Authority (EFSA)
EPA (Environmental Protection Agency)
Acute Exposure Guideline Level(s) (AEGL(s))
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
U.S. Environmental Protection Agency High Production Volume Chemicals
Food Research Journal
Hazardous Substance Database
International Uniform Chemical Information Database (IUCLID)
National Institute of Technology and Evaluation (NITE)
Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
NIOSH (National Institute for Occupational Safety and Health)
National Library of Medicine's ChemID Plus (NLM CIP)

National Library of Medicine’s PubMed database (NLM PUBMED)
National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications
Organization for Economic Co-operation and Development High Production Volume Chemicals Program
Organization for Economic Co-operation and Development Screening Information Data Set
World Health Organization

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Revision Note	The symbol (***) in the margin of this SDS indicates that this line has been revised.

Disclaimer

Although the information and recommendations set forth herein (hereinafter "information") are presented in good faith and believed to be correct as of the date hereof, we make no representations as to the completeness or accuracy thereof. Information is supplied to you upon the condition that the persons receiving the information will make their own determination as to its safety and suitability for their purposes prior to use. In no event will we be responsible for damages of any nature whatsoever resulting from the use of or reliance upon the information. In addition, we shall not be liable for any damage or injury resulting from abnormal use, from any failure to adhere to recommended practices or from any hazards inherent in the nature of the product.

End of Safety Data Sheet