



SAFETY DATA SHEET

SECTION 1: IDENTIFICATION

Product identifier used on the label:

Product Name: **Armor Guard**

Other means of identification:

Recommended use of the chemical and restrictions on use:

Chemical manufacturer address and telephone number:

Manufacturer Name: Perma-Chink Systems, Inc.

Address: 1605 Prosser Road
Knoxville, TN 37914
USA

Website: www.permachink.com

General Phone Number: 800-548-3554

General Fax Number: 865-523-9475

Customer Service Phone Number: 865-524-7343

Emergency phone number:

Emergency Phone Number: CHEMTREC 1-800-424-9300

SECTION 2: HAZARD(S) IDENTIFICATION

Classification of the chemical in accordance with CFR 1910.1200(d)(f):

GHS Pictograms:



Signal Word: **WARNING.**

GHS Class: Reproductive toxicity. Category 2.

Hazard Statements: H361 - Suspected of damaging fertility or the unborn child.

Precautionary Statements: P202 - Do not handle until all safety precautions have been read and understood.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P308+P313 - If exposed or concerned: Get medical advice/attention.
P501 - Dispose of contents/container in accordance with local regulation

Hazards not otherwise classified that have been identified during the classification process:

Potential Health Effects:

Eye: Causes eye irritation.

Skin: Causes skin irritation.

Inhalation: Prolonged or excessive inhalation may cause respiratory tract irritation.

Ingestion: May be harmful if swallowed. May cause vomiting.

Chronic Health Effects: Prolonged or repeated contact may cause skin irritation.

Signs/Symptoms: Overexposure may cause headaches and dizziness.

Target Organs: Eyes. Skin. Respiratory system. Digestive system.

Aggravation of Pre-Existing Conditions: None generally recognized.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Mixtures:

Chemical Name	CAS#	Ingredient Percent	EC Num.
Disodium Octoborate Tetrahydrate (DOT)	12280-03-4	99 - 100 by weight	602-894-3

SECTION 4: FIRST AID MEASURES

Description of necessary measures:

Eye Contact:	Immediately flush eyes with plenty of water for at least 15 to 20 minutes. Ensure adequate flushing of the eyes by separating the eyelids with fingers. Remove contacts if present and easy to do. Continue rinsing. Get medical attention, if irritation or symptoms of overexposure persists.
Skin Contact:	Immediately wash skin with soap and plenty of water. Get medical attention if irritation develops or persists.
Inhalation:	If inhaled, remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Seek immediate medical attention.
Ingestion:	If swallowed, do NOT induce vomiting. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.

SECTION 5: FIRE FIGHTING MEASURES

Suitable and unsuitable extinguishing media:

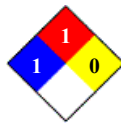
Suitable Extinguishing Media:	Use alcohol resistant foam, carbon dioxide, dry chemical, or water fog or spray when fighting fires involving this material.
--------------------------------------	--

Special protective equipment and precautions for fire-fighters:

Protective Equipment:	As in any fire, wear Self-Contained Breathing Apparatus (SCBA), MSHA/NIOSH (approved or equivalent) and full protective gear.
------------------------------	---

NFPA Ratings:

NFPA Health:	1
NFPA Flammability:	1
NFPA Reactivity:	0



SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

Personal Precautions:	Evacuate area and keep unnecessary and unprotected personnel from entering the spill area. Use proper personal protective equipment as listed in Section 8.
------------------------------	---

Environmental precautions:

Environmental Precautions:	Avoid runoff into storm sewers, ditches, and waterways.
-----------------------------------	---

Methods and materials for containment and cleaning up:

Methods for containment:	Contain spills with an inert absorbent material such as soil or sand. Prevent from spreading by covering, diking or other means. Provide ventilation.
Methods for cleanup:	Clean up spills immediately observing precautions in the protective equipment section. Place into a suitable container for disposal. Provide ventilation. After removal, flush spill area with soap and water to remove trace residue.

SECTION 7: HANDLING and STORAGE

Precautions for safe handling:

Handling:	Use with adequate ventilation. Avoid breathing vapor and contact with eyes, skin and clothing.
Hygiene Practices:	Wash thoroughly after handling. Avoid contact with eyes and skin. Avoid inhaling vapor or mist.

Conditions for safe storage, including any incompatibilities:

Storage:	Store in a cool, dry, well ventilated area away from sources of heat, combustible materials, and incompatible substances. Keep container tightly closed when not in use.
-----------------	--

SECTION 8: EXPOSURE CONTROLS, PERSONAL PROTECTION

EXPOSURE GUIDELINES:

Appropriate engineering controls:

Engineering Controls:	Use appropriate engineering control such as process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Good general ventilation should be sufficient to control airborne levels. Where such systems are not effective wear suitable personal protective equipment, which performs satisfactorily and meets OSHA or other recognized standards. Consult with local procedures for selection, training, inspection and maintenance of the personal protective equipment.
------------------------------	--

Individual protection measures:

Eye/Face Protection:	Wear appropriate protective glasses or splash goggles as described by 29 CFR 1910.133, OSHA eye and face protection regulation, or the European standard EN 166.
Skin Protection Description:	Chemical-resistant gloves and chemical goggles, face-shield and synthetic apron or coveralls should be used to prevent contact with eyes, skin or clothing.

Respiratory Protection:	A NIOSH approved air-purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection.
Other Protective:	Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.
PPE Pictograms:	 

SECTION 9: PHYSICAL and CHEMICAL PROPERTIES

PHYSICAL AND CHEMICAL PROPERTIES:

Physical State:	Crystalline powder.
Physical State Appearance:	Solid.
Color:	White
Odor:	Odorless.
Odor Threshold:	Not applicable.
Boiling Point:	No Data
Melting Point:	815°C
Density:	18.8
Specific Gravity:	2.25
Specific Volume:	No Data
Solubility:	Water: 4.5% at 10°C & 27.4% at 40°C
Vapor Density:	Not applicable.
Vapor Pressure:	Not applicable.
Percent Volatile:	Not applicable.
Evaporation Rate:	Not applicable.
Evaporation Point:	No Data
pH:	8.3 (3.0% solution)/7.6 (10.0% solution)
Molecular Formula:	Na2B8O13-4H2O412.52Not
Molecular Weight:	applicable.
Viscosity:	
Coefficient of Water/Oil Distribution:	No data.
Flammability:	No Data
Flash Point:	No Data
Lower Flammable/Explosive Limit:	Not applicable.
Upper Flammable/Explosive Limit:	Not applicable.
Auto Ignition Temperature:	No Data
Explosive Properties:	Not explosive.
Oxidizing Properties:	No Data
Refractive Index:	No Data
Optical Rotation:	No Data
VOC Content:	Not applicable.

SECTION 10: STABILITY and REACTIVITY

Chemical Stability:

Chemical Stability: Stable under normal temperatures and pressures.

Possibility of hazardous reactions:

Hazardous Polymerization: Not reported.

Conditions To Avoid:

Conditions to Avoid: Heat, flames, and incompatible materials.

Incompatible Materials:

Incompatible Materials: Strong reducing agents.

SECTION 11: TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION:

Acute Toxicity:	No known significant effects or critical hazards
Skin:	Unlikely to cause harmful effects
Inhalation:	Exposure to high concentrations may cause irritation.
Other Toxicological Information:	LD50 oral rat: 2500 mg/kg LD50 dermal rabbit: >2000 mg/kg ATE US oral: 2500 mg/kg body weight
Reproductive Toxicity:	Dog, rat and mouse: consumption of high doses have demonstrated effects on fertility and testes. Rabbit, mouse and rat: consumption of high doses have shown fetal weight loss and minor skeletal abnormalities.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity:

Ecotoxicity:	Data based on acute testing on fresh water species, this substance is not classified as Hazardous to the environment.
--------------	---

SECTION 13: DISPOSAL CONSIDERATIONS

Description of waste:

Waste Disposal:	Avoid discharge into sewers, watercourses, underground or low areas. Consult with the US EPA Guidelines listed in 40 CFR Part 261.3 for the classifications of hazardous waste prior to disposal. Furthermore, consult with your state and local waste requirements or guidelines, if applicable, to ensure compliance. Arrange disposal in accordance to the EPA and/or state and local guidelines.
-----------------	---

SECTION 14: TRANSPORT INFORMATION

DOT Shipping Name:	Not restricted as a dangerous good.
DOT UN Number:	Not restricted as a dangerous good.
IATA Shipping Name:	Not restricted as a dangerous good.
IATA UN Number:	Not restricted as a dangerous good.
Canadian Shipping Name:	Not restricted as a dangerous good.
Canadian UN Number:	Not restricted as a dangerous good.
IMDG UN Number :	Not restricted as a dangerous good.
IMDG Shipping Name :	Not restricted as a dangerous good.
ADR UN Number:	Not restricted as a dangerous good.
ADR Shipping Name :	Not restricted as a dangerous good.

SECTION 15: REGULATORY INFORMATION

Safety, health and environmental regulations specific for the product:

TSCA Inventory Status:	Listed
Canadian DSL:	Listed

SECTION 16: ADDITIONAL INFORMATION

HMIS Ratings:

HMIS Health Hazard: 1
HMIS Fire Hazard: 1
HMIS Reactivity: 0
HMIS Personal Protection: X

Health Hazard	1
Fire Hazard	1
Reactivity	0
Personal Protection	X

SDS Creation Date: July 30, 2015

SDS Revision Date: August 3, 2022

SDS Format:

SDS Author: Perma-Chink Systems, Inc.

Disclaimer:

The information contained herein is, to the best of Perma-Chink Systems, Inc. knowledge, accurate as of the date indicated. Since the information contained herein may be applied under conditions beyond our control and with which we may be unfamiliar, and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume responsibility for the results of its use. This information is furnished on the condition that the person receiving it shall make their own determination as to the suitability of the material for their particular purpose and on the condition that they assume the risk of use thereof.