

Health	1
Fire	3
Reactivity	0
Personal Protection	G

Material Safety Data Sheet H2O Armor

Section 1: Chemical Product and Company Identification	
Product Name H2O Armor	Contact Information Advanced Armor, Inc 505 82 nd Street Lubbock, TX 79404 Sales: 1-806-778-8979 Order Online: www.advancedarmor.com
Catalog Codes SLH2335, SLH2032, SLX1075, SLX1129, SLX1042, SLX1096	CHEMTREC (24 Hour Emergency Telephone) 1-800-424-9300
CAS # 110-54-3; 1330-20-7	International CHEMTREC 1-703-527-3887
RTECS MN9275000; ZE100000	For Non-Emergency Assistance 1-806-778-8979
TSCA TSCA 8(b) inventory: Hexane; Xylene	
CL # Not Applicable	
Synonym	
Chemical Name Hexane; Xylene	
Chemical Formula C6-H14; C6H4(CH3)2	

Section 2: Composition and Information on Ingredients		
Composition		
Name	CAS #	% by Weight
Hexanes	110-54-3	80%
Xylene	1330-20-7	10%
Proprietary additives		10%
Toxicological Data on Ingredients		
Hexane: ORAL (LD50). Acute: 25000 mg/kg [Rat]. 2119 mg/kg [Mouse]. DERMAL (LD50). Acute: &qt: 1700 mg/kg [Rabbit]		

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall ScienceLab.com be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if ScienceLab.com has been advised of the possibility of such damages.

Section 3: Hazards Identification

Potential Acute Health Effects

Hazardous in case of skin contact (permeator), ingestion, or inhalation. Slightly hazardous in case of skin contact (irritant) or eye contact (irritant).

Potential Chronic Health Effects

CARCINOGENIC EFFECTS: 3 (Not classifiable for human) by IARC. MUTAGENIC for bacteria and/or yeast. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. The substance may be toxic to blood, kidneys, liver, mucous membranes, bone marrow, or central nervous system. Repeated or prolonged exposure to the substance can produce target organ damage.

Section 4: First Aid Measures

Eye Contact

Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek medical attention if irritation occurs.

Skin Contact

In case of contact, immediately flush the skin with plenty of water. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Seek medical attention.

Serious Skin Contact

Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.

Inhalation

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if symptoms appear.

Serious Inhalation

Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek medical attention.

Ingestion

Do NOT induce vomiting unless directed to do so by a medical professional. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt, or waistband. Seek medical attention if symptoms appear.

Serious Ingestion

Not available

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall ScienceLab.com be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if ScienceLab.com has been advised of the possibility of such damages.

Section 5: Fire and Explosion Data

Flammability of the Product

Flammable

Auto-Ignition Temperature

279°C (534°F)

Flash Points

CLOSED CUP: -27.8°C (-18°F). (TAG)

Flammable Limits

LOWER: 1.1%; UPPER: 7.4%

Products of Combustion

These products are carbon oxides (CO, CO₂)

Fire Hazards in Presence of Various Substances

Highly flammable in presence of open flames and sparks of heat. Non-flammable in presence of shocks.

Explosion Hazards in Presence of Various Substances

Risks of explosion of the product in presence of mechanical impact: not available. Slightly explosive in presence of open flames and sparks of heat. Risk of explosion of the product in presence of static discharge.

Fire Fighting Media and Instructions

Flammable liquid insoluble in water. SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use alcohol foam, water spray, or fog. Cool containing vessels with water jet in order to prevent pressure build-up, auto ignition or explosion.

Special Remarks on Fire Hazards

Extremely flammable liquid and vapor. Vapor may cause flash fire.

Special Remarks on Explosion Hazards

Vapors may form explosive mixtures with air. Containers may explode when heated. May polymerize explosively when heated. At attempt to chlorinate xylene with 1, 3-Dichloro-5, 5-dimethyl-2, 4-imidazolidindione (dichlorohydrantoin) caused a violent explosion.

Section 6: Accidental Release Measures

Small Spill

Absorb with an inert material and put the spilled material in an appropriate waste disposal.

Large Spill

Flammable liquid insoluble in water. Keep away from heat. Keep away from sources of ignition. Stop leak if without risk. Absorb with DRY earth, sand, or other non-combustible material. Do not get water inside of the container. Do not touch spilled material. Prevent entry into sewers,

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall ScienceLab.com be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if ScienceLab.com has been advised of the possibility of such damages.

basements or confined areas; dike if needed. Call for assistance on disposal. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

Section 7: Handling and Storage

Precautions

Keep locked up and away from heat and sources of ignition. Ground all equipment containing material. Do not ingest or breathe the gas/fumes/vapors/spray. Avoid contact with the skin. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical attention immediately and show the container or label. Avoid contact with the skin and eyes. Keep away from incompatibles such as oxidizing agents.

Storage

Store in a segregated and approved area. Keep the container in a cool, well-ventilated area. Keep the container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame).

Section 8: Exposure Controls/Personal Protection

Engineering Controls

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.

Personal Protection

Use safety glasses, lab coat, and vapor respirator. Be sure to use an approved/certified respirator or equivalent. Gloves (impervious).

Personal Protection in Case of Large Spill

Splash goggles, full suit, vapor respirator, boots, and gloves. A self-contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient. Consult a specialist BEFORE handling this product.

Exposure Limits

TWA: 500 (ppm) from OSHA (PEL) [United States] inhalation. TWA: 1800 (mg/m³) from OSHA (PEL) [United States] inhalation. TWA: 176 (mg/m³) from ACGIH (TLV) [United States] skin. TWA: 50 (ppm) from ACGIH (TLV) [United States] skin. TWA: 500. STEL: 1000 (ppm) from ACGIH (TLV) [United States] inhalation. TWA: 1760. STEL: 3500 (mg/m³) from ACGIH (TLV) [United States] inhalation. Consult local authorities for acceptable exposure limits.

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall ScienceLab.com be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if ScienceLab.com has been advised of the possibility of such damages.

Section 9: Physical and Chemical Properties

Physical State and Appearance

Liquid

Odor

Petroleum-like (slight) sweet

Taste

Not Available

Molecular Weight

86.18 g/mole

Color

Clear/colorless

pH (1% sol/water)

Not applicable

Boiling Point

54°C (130°F)

Melting Point

Not Available

Critical Temperature

Not Available

Specific Gravity

Not Available

Vapor Pressure

70°F-1.8 psi

100°F-5.4 psi

Vapor Density

2.97 (air=1)

Percent Volatility

93.362%

Odor Threshold

130 ppm

Water/Oil Distribution Coefficient

The product is more soluble in oil; $\log(\text{oil/water})=3.9$

Iconicity (in water)

Not Available

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall ScienceLab.com be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if ScienceLab.com has been advised of the possibility of such damages.

Dispersion Properties

See solubility in water, diethyl ether, acetone

Solubility

Soluble in diethyl ether, or acetone. Insoluble in cold or hot water. Miscible with absolute alcohol, ether and many other organic liquids

Section 10: Stability and Reactivity Data**Stability**

The product is stable

Instability Temperature

Not available

Conditions of Instability

Heat, ignition sources, incompatibles

Incompatibility with Various Substances

Reactive with oxidizing agents, acids.

Corrosivity

Non-corrosive in presence of glass

Special Remarks on Reactivity

Can react vigorously with strong oxidizers. Store away from acetic acid, nitric acid, chlorine, bromine and fluorine

Special Remarks on Corrosivity

Not Available

Polymerization

Will not occur

Section 11: Toxicological Information

Long term toxicological studies have not been conducted for this product. The following information is available for components of this product.

Acute Effects

Component	Test	Result	Route	Species
n-Hexane	LD50	25000 mg/kg	Oral	Rat
n-Hexane	LC50	48000 ppm/4H	Inhalation	Rat
Xylene	LD50	4300 mg/kg	Oral	Rat
Xylene	LC50	5000 ppm/4H	Inhalation	Rat

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall ScienceLab.com be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if ScienceLab.com has been advised of the possibility of such damages.

Section 12: Ecological Information

Exotoxicity

Not available

BOD5 and COD

Not available

Products of Biodegradation

Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation

The product itself and its products of degradation are not toxic

Special Remarks on the Products of Biodegradation

Not available

Section 13: Disposal Considerations

Waste Disposal

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Section 14: Transport Information

DOT Classification

CLASS 3: Flammable liquid

Identification

Hexane UNNA: 1208 PG: II

Xylene UNNA: 137 PG: III

Special Provisions for Transport

Not available

Section 15: Other Regulatory Information

Federal and State Regulations

Connecticut hazardous material survey.: Hexanes Illinois toxic substances disclosure to employee act: Hexanes Illinois chemical safety act: Hexanes New York release reporting list: Hexanes Rhode Island RTK hazardous substances: Hexanes Pennsylvania RTK: Hexanes Florida: Hexanes Minnesota: Hexanes Massachusetts RTK: Hexanes Massachusetts spill list: Hexanes New Jersey: Hexanes New Jersey spill list: Hexanes Louisiana spill reporting: Hexanes TSCA 8(b) inventory: Hexanes SARA 313 toxic chemical notification and release

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall ScienceLab.com be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if ScienceLab.com has been advised of the possibility of such damages.

reporting: Hexanes CERCLA: Hazardous substances.: Hexanes: 5000 lbs. (2268 kg) Connecticut hazardous material survey.: Xylenes Illinois chemical safety act: Xylenes New York acutely hazardous substances: Xylenes Rhode Island RTK hazardous substances: Xylenes Pennsylvania RTK: Xylenes Minnesota: Xylenes Michigan critical material: Xylenes Massachusetts RTK: Xylenes Massachusetts spill list: Xylenes New Jersey: Xylenes New Jersey spill list: Xylenes Louisiana spill reporting: Xylenes California Director's List of Hazardous Substances: Xylenes TSCA 8(b) inventory: Xylenes SARA 302/304/311/312 hazardous chemicals: Xylenes SARA 313 toxic chemical notification and release reporting: Xylenes CERCLA: Hazardous substances.: Xylenes: 100 lbs. (45.36 kg)

Other Regulations

OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200). EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances.

WHMIS (Canada)

CLASS B-2: Flammable liquid with a flash point lower than 37.8°C (100°F). CLASS D-2B: Material causing other toxic effects (TOXIC).

DSCL (EEC)

R11- Highly flammable. R20- Harmful by inhalation. R51/53- Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. R62- Possible risk of impaired fertility. R65- Harmful: may cause lung damage if swallowed. R67- Vapors may cause drowsiness or dizziness. S9- Keep container in a well-ventilated place. S16- Keep away from sources of ignition - No smoking. S29- Do not empty into drains. S33- Take precautionary measures against static discharges. S61- Avoid release to the environment. Refer to special instructions/Safety data sheets. S62- If swallowed, do not induce vomiting: seek medical advice immediately and show this

HMIS (U.S.A.)

Health Hazard: 1

Fire Hazard: 3

Reactivity: 0

Personal Protection: g,h

National Fire Protection Association (U.S.A.)

Health: 1

Flammability: 3

Reactivity: 0

Specific hazard:

Protective Equipment

Gloves (impervious), lab coat, vapor respirator, and safety glasses. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate.

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall ScienceLab.com be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if ScienceLab.com has been advised of the possibility of such damages.

Section 16: Other Information

References

Not available

Other Special Considerations

Not available

Created

02/22/2011

Last Updated

05/21/2014

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall ScienceLab.com be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if ScienceLab.com has been advised of the possibility of such damages.