

SAFETY DATA SHEET

Hillyard Arsenal Floor Conditioner and Neutralizer

Section 1. Identification

GHS product identifier : Arsenal Floor Conditioner and Neutralizer
Other means of identification : HIL00831 ST-796
Product type : Solid.

Relevant identified uses of the substance or mixture and uses advised against

Product use : Neutralizing rinse and ice-melt compound residue remover
Area of application : Industrial applications, Professional applications.

Product dilution information : 0.5 wt. oz. (14.17 g) per 3 gallons (11.3 L) of water

Supplier/Manufacturer : **Hillyard Industries**
302 North 4th Street
St. Joseph, MO 64501
Telephone no.:816-233-1321
Website: www.hillyard.com

Emergency telephone number (with hours of operation) : CHEM-TREC : 800-424-9300

Section 2. Hazards identification

	Product as SOLD	Product AT USE DILUTION
OSHA/HCS status	: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).	Not classified.
Classification of the substance or mixture	: SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A	Not classified.
<u>GHS label elements</u>		
Hazard pictograms	: 	None
Signal word	: Warning	None
Hazard statements	: Causes serious eye irritation. Causes skin irritation.	The mixture does not meet the criteria for classification.
<u>Precautionary statements</u>		
General	: Keep out of the reach of children.	Keep out of the reach of children.
Prevention	: Wear protective gloves/eye protection. Wash hands thoroughly after handling.	Observe good industrial hygiene practices.

Section 2. Hazards identification

Response	Product as SOLD : IF ON SKIN: Wash with plenty of water. Take off contaminated clothing. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical attention. 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 attention.	Product AT USE DILUTION No special measures required. Treat symptomatically. No known effect after skin contact. Rinse with water for a few minutes. No known effect after eye contact. Rinse with water for a few minutes. If irritation persists, get medical attention.
Storage	: No storage precautions necessary.	No storage precautions necessary.
Disposal	: No disposal instructions necessary.	Dispose of solution down the drain to municipal sewer.
Supplemental label elements	: Avoid contact with skin and clothing. Wash thoroughly after handling.	Not applicable.
Hazards not otherwise classified	: None known.	Not applicable.

Section 3. Composition/information on ingredients

Substance/mixture	: Mixture
Other means of identification	: ST-796, ST-729 FP10
<u>CAS number/other identifiers</u>	
CAS number	: Not applicable.
Product code	: Not available.

Ingredient name	Other names	%	CAS number
citric acid	citric acid	60 – 100	77-92-9
sodium carbonate	sodium carbonate	10 - 30	497-19-8

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact	Product as SOLD : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.	Product AT USE DILUTION No known effect after eye contact. Rinse with water for a few minutes. If irritation persists, get medical attention.
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Section 4. First aid measures

	Product as SOLD	Product AT USE DILUTION
Inhalation	: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.	No special measures required. Treat symptomatically.
Skin contact	: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.	No known effect after skin contact. Rinse with water for a few minutes.
Ingestion	: Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.	Get medical attention if symptoms occur.

Most important symptoms/effects, acute and delayed

Potential acute health effects

	Product as SOLD	Product AT USE DILUTION
Eye contact	: Causes serious eye irritation.	No known effects.
Inhalation	: May cause respiratory irritation.	No known effects.
Skin contact	: Causes skin irritation.	No known effects.
Ingestion	: Irritating to mouth, throat and stomach.	No known effects.

Section 4. First aid measures

Over-exposure signs/symptoms

Eye contact	Product as SOLD : Adverse symptoms may include the following: pain or irritation watering redness
Inhalation	: Adverse symptoms may include the following: respiratory tract irritation coughing
Skin contact	: Adverse symptoms may include the following: Irritation redness
Ingestion	: No specific data.

Product AT USE DILUTION

No known effects.

No known effects.

No known effects.

No known effects.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician	Product as SOLD : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	: No specific treatment.
Protection of first-aiders	: No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

Product AT USE DILUTION

Treat symptomatically.

No specific treatment.

No special measures required.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media	: Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	: Do not use water jet.

Specific hazards arising from the chemical : No specific fire or explosion hazard.

Hazardous thermal decomposition products	: Decomposition products may include the following materials: carbon dioxide carbon monoxide metal oxide/oxides
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Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Remark : Dust explosion class: St1

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	Product as SOLD : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.	Product AT USE DILUTION Use personal protective equipment as required.
For emergency responders	: If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".	Avoid contact of large amounts of spilled material and run off with soil and surface waterways.
Environmental precautions	: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).	Use a water rinse for final clean-up.

Methods and materials for containment and cleaning up

Small spill	Product as SOLD : Move containers from spill area. Avoid dust generation. Using a vacuum with HEPA filter will reduce dust dispersal. Place spilled material in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.	Product AT USE DILUTION Small Spills: Wipe up with absorbent material.
Large spill	: Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.	Large Spills: Flush area with water. Prevent entry into waterways.

Section 7. Handling and storage

Precautions for safe handling

Protective measures

Product as SOLD

: Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene

: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities

: Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. Keep from freezing.

Product AT USE DILUTION

Wash hands thoroughly after handling.

Wash hands thoroughly after handling.

Keep out of reach of children.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Product as SOLD

: Contains no substances with occupational exposure limit values.

Appropriate engineering controls

: Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Product AT USE DILUTION

No exposure limits noted for ingredient(s).

No ventilation required.

Section 8. Exposure controls/personal protection

Environmental exposure controls

Product as SOLD

- : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Product AT USE DILUTION

No environmental exposure controls required.

Individual protection measures

Hygiene measures

Product as SOLD

- : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Product AT USE DILUTION

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

Eye/face protection

- : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

No protective equipment is needed under normal conditions.

Skin protection

Hand protection

- : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. Neoprene gloves. Rubber gloves.

No protective equipment is needed under normal conditions.

Body protection

- : No protective equipment is needed under normal conditions.

No protective equipment is needed under normal conditions.

Other skin protection

- : No protective equipment is needed under normal conditions.

No protective equipment is needed under normal conditions.

Section 8. Exposure controls/personal protection

Respiratory protection	Product as SOLD : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.	Product AT USE DILUTION No protective equipment is needed under normal conditions.
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Section 9. Physical and chemical properties

	Product as SOLD	Product AT USE DILUTION
Appearance		
Physical state	: Solid. [Granular solid./Crystals.]	Aqueous solution.
Color	: White.	Colorless
Odor	: Odorless.	Odorless.
Odor threshold	: Not available.	Not available.
pH	: Not applicable.	4.0 to 5.0
Melting point	: 153°C (307.4°F)	Not applicable
Boiling point	: Not available.	Not available.
Flash point	: >93.333°C (>200°F)	>93.333°C (>200°F)
Evaporation rate	: Not available.	Not available.
Flammability (solid, gas)	: Not applicable.	Not applicable.
Lower and upper explosive (flammable) limits	: Not available.	Not available.
Vapor pressure	: Not available.	Not available.
Vapor density	: Not available.	Not available.
Relative density	: Not available.	Not available.
Solubility	: Easily soluble in the following materials: cold water and hot water.	Complete
Solubility in water	: Not available.	Complete
Partition coefficient: n-octanol/water	: Not available.	Not available.
Auto-ignition temperature	: Not available.	Not available.
Decomposition temperature	: Not available.	Not available.
SADT	: Not available.	Not available.
Viscosity	: Not available.	Not available.

Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
	Under normal conditions of storage and use, hazardous polymerization will not occur.
Conditions to avoid	: Keep from freezing. Keep away from extreme heat.
Incompatible materials	: Reactive or incompatible with the following materials: oxidizing materials, acids and alkalis.
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
citric acid	LD50 Oral	Rat	3 g/kg	-
sodium carbonate	LD50 Oral	Rat	4090 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
citric acid	Eyes - Severe irritant	Rabbit	-	24 hours 750 Micrograms	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Moderate irritant	Rabbit	-	0.5 Milliliters	-
sodium carbonate	Eyes - Moderate irritant	Rabbit	-	24 hours 100 milligrams	-
	Eyes - Severe irritant	Rabbit	-	50 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

	Product as SOLD
Eye contact	: Causes serious eye irritation.
Inhalation	: May cause respiratory irritation.
Skin contact	: Causes skin irritation.
Ingestion	: Irritating to mouth, throat and stomach.

Product AT USE DILUTION
Direct contact with eyes may cause temporary irritation.
No adverse effects due to inhalation are expected.
No adverse effects due to skin contact are expected.
Expected to be a low ingestion hazard.

Section 11. Toxicological information

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	Product as SOLD : Adverse symptoms may include the following: pain or irritation watering redness
Inhalation	: Adverse symptoms may include the following: respiratory tract irritation coughing
Skin contact	: Adverse symptoms may include the following: Irritation redness
Ingestion	: No specific data.

Product AT USE DILUTION
Temporary irritation.

None.

None.

None.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects	Product as SOLD : Not available.
Potential delayed effects	: Not available.

Product AT USE DILUTION
None.
None.

Long term exposure

Potential immediate effects	Product as SOLD : Not available.
Potential delayed effects	: Not available.

Product AT USE DILUTION
None.
None.

<u>Potential chronic health effects</u>	: Not available.
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General	Product as SOLD : No known significant effects or critical hazards.
Carcinogenicity	: No known significant effects or critical hazards.
Mutagenicity	: No known significant effects or critical hazards.
Teratogenicity	: No known significant effects or critical hazards.
Developmental effects	: No known significant effects or critical hazards.
Fertility effects	: No known significant effects or critical hazards.

Product AT USE DILUTION
No known significant effects or critical hazards.
No known significant effects or critical hazards.
No known significant effects or critical hazards.
No known significant effects or critical hazards.
No known significant effects or critical hazards.
No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Oral	3124.9 mg/kg

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
citric acid	Acute LC50 160000 µg/l Marine water	Crustaceans - Carcinus maenas-Adult	48 hours
sodium carbonate	Acute EC50 242000 µg/l Fresh water	Algae - Navicula seminulum	96 hours
	Acute LC50 176000 µg/l Fresh water	Crustaceans - Amphipoda	48 hours
	Acute LC50 265000 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 300000 µg/l Fresh water	Fish - Lepomis macrochirus	96 hours

Persistence and degradability

Not available.

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
citric acid	-1.8	-	low

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

	Product as SOLD	Product AT USE DILUTION
Disposal methods	: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.	Diluted product can be flushed to sanitary sewer. Discard empty container in trash.

Section 14. Transport information

Product as SOLD

	DOT Classification	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	Cleaning compounds, NOI, powder.	-	-
Transport hazard class(es)	-	-	-
Packing group	-	-	-
Environmental hazards	No.	No.	No.
Additional information	-	-	-

Product AT USE DILUTION

Not intended for transport

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code : Not available.

Section 15. Regulatory information

U.S. Federal regulations : **United States inventory (TSCA 8b):** All components are listed or exempted.

Product as SOLD

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Not listed

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients : No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : Immediate (acute) health hazard

Composition/information on ingredients

Product AT USE DILUTION

Not listed

Not listed

Not listed

Not listed

Not listed

No products were found.

Not applicable.

Non-hazardous.

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
citric acid	60 - 100	Yes.	No.	No.	Yes.	No.
sodium carbonate	10 - 30	No.	No.	Yes.	Yes.	No.

Section 15. Regulatory information

Product as SOLD		Product AT USE DILUTION
SARA 313 State regulations		Not regulated.
Massachusetts : None of the components are listed. New York : None of the components are listed. New Jersey : None of the components are listed. Pennsylvania : None of the components are listed. California Prop. 65 None of the components are listed.		Not regulated. Not regulated. Not regulated. Not regulated.

Section 16. Other information

Product as SOLD

[Hazardous Material Information System \(U.S.A.\)](#)

Health	2
Flammability	0
Physical hazards	0

4=Very High; 3=High; 2=Moderate; 1=Slight; 0=Insignificant

[National Fire Protection Association \(U.S.A.\)](#)



Product AT USE DILUTION

[Hazardous Material Information System \(U.S.A.\)](#)

Health	0
Flammability	0
Physical hazards	0

4=Very High; 3=High; 2=Moderate; 1=Slight; 0=Insignificant



Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on SDSs under 29 CFR 1910. 1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

Section 16. Other information

History

Date of issue/Date of revision : 05/29/2015

Date of previous issue : none

Version : 1

Prepared by : JBE/JER

Key to abbreviations

: ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labeling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
UN = United Nations

References

: HCS (U.S.A.)- Hazard Communication Standard
International transport regulations

 Indicates information that has changed from previously issued version.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.