

Section 1. Identification

Product Name: Struvite Remover
Product Use: Scale Remover
Product Type: Liquid
Product Manufacturer: Jayne Products Inc.
17904, South Star of India Lane
Carson, Ca 90746 – USA

In case of an emergency: INFOTRAC (U.S. and CANADA) (800) 535-5053
INFOTRAC (Outside the U.S.) (352) 323-3500

Section 2. Hazards Identification

Emergency Overview

Appearance/Odor: Clear, odor not specified.

Classification: SKIN CORROSION/IRRITATION - Category 3, H316
EYE IRRITATION - Category 2B, H320
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)
[Respiratory tract irritation] – Category 3, H335

Signal word: WARNING

Hazard statements: H316: Causes mild skin irritation.
H320: Causes eye irritation.
H335: May cause respiratory irritation.

Hazard pictograms:



Precautionary statements

Prevention: P261: Avoid breathing fumes/vapors.
P264: Wash hands and exposed skin thoroughly after handling.
P271: Use only outdoors or in a well-ventilated area.

Response: P304 + P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312: Call a POISON CENTER or doctor/physician if you feel unwell.
P332 + P313: If skin irritation occurs: Get medical advice/attention.

Struvite Remover

Section 2. Hazards Identification

Response (cont.):	P337 +P313: If eye irritation persists: Get medical advice/attention.
Storage:	P405: Store locked up P403 + P233: Store in a well-ventilated place. Keep container tightly closed.
Disposal:	P501: Disposal of contents/container to be specified in accordance with regulations.
<u>GHS label elements</u>	
General:	Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.
OSHA/HCS status:	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Hazards not otherwise classified:	None known.

Section 3. Composition/Information on Ingredients

Substance/Mixture:	Mixture
Other means of identification:	Not available
<u>CAS Number/Other Identifiers</u>	
CAS Number:	Not applicable.

Component	%	CAS Number
Proprietary formula	20-30	-

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 or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First Aid Measures

Description of Necessary First Aid Measures

Eye Contact:	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 15 minutes. If irritation persists, get medical attention.
Skin Contact:	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 15 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Struvite Remover

Section 4. First Aid Measures

Inhalation: If symptoms of overexposure are experienced, remove victim to fresh air and keep at rest in a position comfortable for breathing. 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 adverse health effects persist or are severe. 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.

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. 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 immediately. 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.

Most Important Symptoms/Effects, Acute And Delayed Potential Acute Health Effects

Eye Contact: May cause eye irritation. Symptoms may include redness, stinging and/or tearing. The degree of irritation experienced may be expected to be directly related to the quantity of material and time period that the eye tissues are exposed to.

Inhalation: Vapors/mists that are inhaled may be irritating to mucous membranes. Symptoms may include coughing, nausea, chest pain and/or headaches.

Skin Contact: May cause skin irritation. Symptoms may include localized reddening of exposed skin.

Ingestion: May be irritating to mouth, throat and stomach. Symptoms may include coughing, abdominal pain and/or vomiting.

Indication of Immediate Medical Attention and Special Treatment Needed, If Necessary

Notes to Physician: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific Treatments: No specific treatment.

Protection of First Responders: No action taken shall be taken involving any personal risk without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Struvite Remover

Section 5. Fire Fighting Measures

Suitable Extinguishing Media:	The product is not flammable and will not support combustion. Use extinguishing media suitable for localized fire. Use water fog spray to cool and lower the pressure of fire exposed containers, to flush vapors away, and to flush/dilute spilled material.
Unsuitable Extinguishing Media:	None known.
Unusual Fire & Explosion Hazards:	During a fire, gases hazardous to health may be formed.
Product of Combustion:	Thermal decomposition of the product will produce hydrogen chloride, oxides of carbon and phosphorus if evaporated and burned.
Protection of Firefighters:	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. Fire-fighters should wear appropriate protection equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in a positive pressure mode.

Section 6. Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures

For Non-emergency Personnel:	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. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
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 nonemergency personnel".
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).

Methods for Containment

Small Spill:	Stop leak if without risk. Move containers from spill area. Absorb with an inert absorbent material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
---------------------	--

Struvite Remover

Section 6. Accidental Release Measures

Small Spill (cont.):

Wash the spill area clean with water and detergent, observing environmental requirements. **DO NOT USE OXIDISABLE MATERIALS TO SOAK-UP SPILLS!**

Large Spill:

Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with inert, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Wash the spill area clean with water and detergent, observing environmental requirements. **DO NOT USE OXIDISABLE MATERIALS TO SOAK-UP SPILLS!**
Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and Storage

Protective Measures:

Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. 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.

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.

Safe Storage Conditions:

Store in accordance with local regulations. Store material above 40°F and below 160°F. Product may expand slightly in storage causing pressure to build up in container. Open container carefully if product appears to be under pressure. 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.

Struvite Remover

Section 8. Exposure Controls/Personal Protection

Occupational Exposure Limits

List	Components	CAS-No.	Type	Value
ACGIH	Hydrochloric Acid	7647-01-0	Ceiling	2 ppm
	Phosphoric Acid	7664-38-2	STEL	3 mg/m ³
	Phosphoric Acid	7664-38-2	TWA	1 mg/m ³
NIOSH	Hydrochloric Acid	7647-01-0	Ceiling	7 mg/m ³
	Phosphoric Acid	7664-38-2	STEL	3 mg/m ³
	Phosphoric Acid	7664-38-2	TWA	1 mg/m ³
OSHA	Hydrochloric Acid	7647-01-0	Ceiling	7 mg/m ³
	Phosphoric Acid	7664-38-2	PEL	1 mg/m ³

Engineering Controls:

Facilities storing or using this material should be equipped with an eyewash station and safety shower. Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Environmental Exposure Controls:

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 minimize exposure.

Individual Protection Measures

Hygiene Measures:

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.

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.

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.

Struvite Remover

Section 8. Exposure Controls/Personal Protection

Hand Protection (cont.):	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. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: Chemical-resistant gloves.
Body Protection:	Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Other Skin Protection:	Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory Protection:	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.

Section 9. Physical and Chemical Properties

Physical State:	Liquid.
Color:	Clear.
Odor:	Not specified.
pH:	<1.0.
Freezing Point:	32°F.
Boiling Point:	212°F.
Specific Gravity:	1.076 g/cm ³
Solubility in Water	100 %
Evaporation Rate:	1 (Water = 1).
% Volatile by Weight:	0%.
VOC Content:	0 g/l.
Vapor Pressure:	No data available.

Struvite Remover

Section 10. Stability and Reactivity

Chemical Stability:	Stable.
Conditions to Avoid:	No specific data.
Incompatible Materials:	Avoid contact with aluminum, test on copper, oxidizing agents, strong alkaline compounds/degreasers and hypochlorinates (chlorine bleach, sulfides, or cyanides).
Hazardous Decomposition Products:	When evaporated and burned, will produce hydrogen chloride gas, oxides of carbon and phosphorus, and acid fumes.
Possibility of Hazardous Reactions:	Under normal conditions of storage and use, hazardous reactions will not occur.

Section 11. Toxicological Information

Information on Toxicological Effects

Acute Toxicity : No data available.

Sensitization

Non-corrosive to skin (as defined and tested in accordance with the U.S. OSHA's Hazard Communication Standard, DOT Hazardous Materials Regulations, Canada's HHMIS regulations and TDG regulations. Classified as a slight skin irritant as per the 1992 OECD Guidelines for Testing of Chemicals, Number 404 "Acute Dermal Irritation/Corrosion".) Primary irritation index of 0.7 out of a possible 8.0 was obtained. Dermal Irritation Toxicity Category IV (Non-irritating, mild or slight irritation at 72 hours).

Carcinogenicity : None is known to date.

Reproductive Toxicity : None is known to date.

Teratogenicity : None is known to date.

Specific Target Organ Toxicity (single exposure) : None is known to date.

Specific Target Organ Toxicity (repeated exposure) : None is known to date.

Aspiration Hazard : None is known to date.

Information on the likely routes of exposure : Dermal, oral, inhalation.

Section 12. Ecological Information

Ecotoxicity : This product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment. Strongly acidic solutions can be acutely toxic to aquatic life via reduction of water pH. Most aquatic species do not tolerate pH levels lower than 5.5 for any extended period of time.

Struvite Remover

Section 12. Ecological Information

- Persistence and degradability** : No data is available on the degradability of this product.
- Bioaccumulative Potential** : No data is available.
- Mobility in Soil**
- Soil/water Partition Coefficient (K_{oc})** : Not available.
- Other Adverse Effects** : No known significant effects of critical hazards.

Section 13. Disposal Considerations

- Other Adverse Effects:** 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.

Section 14. Transport Information

	DOT	IMDG	IATA
UN Number	Not regulated	Not regulated	Not regulated
UN Proper Shipping Name	-	-	-
Transport Hazard Classes	-	-	-
Packing Group	-	-	-
Environmental Hazards	-	-	-
Additional Information	-	-	-

- 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.

- Additional Information** : According to the DOT, a product is not corrosive if it does not exceed 6.25 millimeters per year at a test temperature of 55 degrees C. when tested in accordance with NACE Standard TMO169-76. The corrosion rate for the product is 0.51 millimeters per year.

Struvite Remover

Section 15. Regulatory Information

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

DSL Status : All components of this product are on the Canadian DSL list.

SARA 302 Components

	CAS-No.	Reportable Quantity
Hydrochloric Acid	7647-01-0	5000 LBS

SARA 304 Emergency Release Notification

	CAS-No.	Quantity
Hydrochloric Acid	7647-01-0	5000 LBS

SARA 311/312 Hazards : None

SARA 313 Components US EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 313 Toxic Chemicals (40 CFR 372.65 – Supplier Notification Required

	CAS-No.	Revision Date
Hydrochloric Acid	7647-01-0	

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

	CAS-No.
Hydrochloric Acid	7647-01-0

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

	CAS-No.
Hydrochloric Acid	7647-01-0

California Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd.(a))

	CAS-No.
Hydrochloric Acid	7647-01-0
Phosphoric Acid	7664-38-2

Massachusetts Right To Know Components

	CAS-No.
Hydrochloric Acid	7647-01-0
Phosphoric Acid	7664-38-2

New Jersey Right To Know Components

	CAS-No.
Hydrochloric Acid	7647-01-0
Phosphoric Acid	7664-38-2

Pennsylvania Right To Know Components

	CAS-No.
Hydrochloric Acid	7647-01-0
Phosphoric Acid	7664-38-2

Struvite Remover

Section 15. Regulatory Information

Rhode Island Right To Know Components

Hydrochloric Acid
Phosphoric Acid

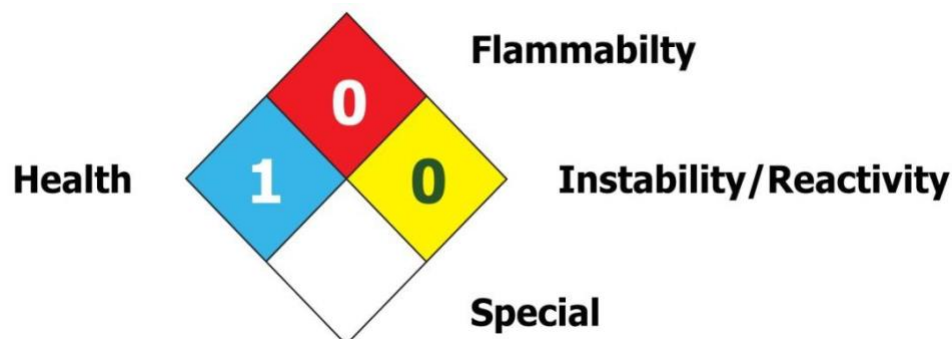
CAS-No.
7647-01-0
7664-38-2

California Prop 65

: This product contains no listed substances known to the State of California to cause cancer, birth defects or other reproductive harm, at levels, which would require a warning under the statute.

Section 16. Other Information

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



Reprinted with permission from NFPA 704-2001, Identification of the Hazards of Materials for Emergency Response Copyright ©1997, National Fire Protection Association, Quincy, MA 02269. This reprinted material is not the complete and official position of the National Fire Protection Association, on the referenced subject which is represented only by the standard in its entirety.

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.

HMIS Rating

HEALTH	1
FLAMMABILITY	0
PHYSICAL HAZARD	0

Struvite Remover

Section 16. Other Information

History

Date of printing : 2/19/19

Date of issue/Date of Revision : 2/19/19

Date of previous issue : 2/19/18

References : Not available

Disclaimer

The information herein is believed to be accurate and is presented in good faith; however, no warranties or representations are made by Jayne Products regarding the accuracy or completeness of the information. Jayne Products shall not be liable for any damages resulting from the handling, or from the contact with the above product.

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.