

Material Safety Data Sheet

1. Product and Company Identification

Effective Date: 06-26-2007

Revision: 0

**LESS IRON, KEETROL, STAIN & SCALE,
IRON CHECK, D IRON, DIAMOND CONTROL,
KEETROL PLUS, DIAMOND SPA BRIGHT**

Principal Use: Stain remover

Description: Light yellow liquid

N. Jonas and Co., Inc.

4520 Adams Circle

P.O. Box 425

Bensalem, PA 19020-0425

Telephone: (215) 639-8071

Only in the Event of a Transportation Emergency Involving Spills, Leaks, Fires or Accidents,
call CHEMTREC at (800) 424-9300.

2. Composition/Information on Ingredients

Ingredients:

2-phosphono-1,2,4-butanetricarboxylic acid

%(w/w)

30

OSHA PEL

Not listed

Ingredients not precisely identified are proprietary or non hazardous. Values are not product specifications.

3. Hazards Identification

Emergency Overview

Appearance:

Light yellow liquid

Physical Hazards:

Corrosive

Health Hazards:

Irritant to skin, eyes and respiratory passages.

* Hazard summary defined by OSHA Hazard Comm. Std., 29 CFR 1910.1200.

Potential Health Effects:

General:

This health hazard assessment based on information from commercial and scientific literature.

Ingestion:

Ingestion is not expected to be a primary route of exposure.

Eye Contact:

Very hazardous in case of eye contact (irritant, corrosive). Inflammation of the eye is characterized by redness, watering and itching.

Material Safety Data Sheet

Skin Contact:

Hazardous in case of skin contact (irritant). Non-corrosive for skin. Skin contact may produce burns. Skin inflammation is characterized by itching, scaling, reddening, or occasionally blistering.

Skin Absorption:

Non-sensitizer for skin.

Inhalation:

May be harmful if inhaled. Effects will depend upon solution strength and length of time of exposure.

4. First Aid Measures:

First Aid - Eyes:

Flush immediately with large amounts of tap water or normal saline (minimum of 15 minutes). Take exposed person to a health care professional, preferably an ophthalmologist, for further evaluation.

First Aid - Skin:

Wash exposed area with plenty of water. Repeat washing. Remove contaminated clothing and wash thoroughly before reuse. If irritation persists, consult a health care professional.

First Aid - Ingestion:

DO NOT INDUCE VOMITING. Rinse with large amounts of water or milk, first. Irrigate the esophagus and dilute stomach contents by slowly giving 1 or 2 glasses of water or milk. Avoid giving alcohol or alcohol related products. In cases where the person is semi-comatose, comatose or convulsing, do not give fluids by mouth. In case of intentional ingestion of the product, seek medical assistance. Take person to the nearest medical facility.

First Aid - Inhalation:

If exposure by inhalation is suspected, immediately move exposed person to fresh air. If person experiences nausea, headache, dizziness, has difficulty in breathing or is cyanotic, seek a health care professional immediately.

5. Fire Fighting Measures

Flashpoint and Method:

Will not flash.

Autoignition Temperature:

Not applicable

Explosive Limits:

Not applicable

General Hazards:

Prevent human exposure to fire, smoke, flames or products of combustion.

Fire Fighting Instructions:

Use water fog, carbon dioxide, foam, dry chemical.

Fire Fighting Equipment:

Material Safety Data Sheet

Wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.

Hazardous Combustion Products:

No data

6. Accidental Release Measures

Spill Measures:

Minimize the area affected by the spill or leak. Prevent spilled material from entering water systems (e.g. sewers, streams, lakes, etc.). Recover as much of the pure product as possible into appropriate containers. Later, determine if this recovered product can be used for its intended purpose. Address clean-up of contaminated environments. Use clay, soil, or commercially available absorbents to soak up remaining spilled material. Sweep up and place in a chemical waste container.

7. Handling and Storage

Handling:

Wear appropriate skin, eye and respiratory protective clothing. Keep container closed when not in use.

Storage:

Store in a cool, dry, well ventilated area.

8. Exposure Controls/Personal Protection

Exposure Guidelines:

No ACGIH TLV or OSHA PEL assigned to this mixture. Minimize exposure in accordance with good industrial hygiene practice.

Engineering Controls:

Use ventilation adequate to maintain safe levels. Provide eyewash station and safety shower in work area.

Respiratory Protection:

When misting may occur in the work area, a NIOSH/MSHA approved respirator may be required. Use a respirator approved for material and level of exposure.

Protective Clothing:

Rubber gloves, body protective clothing and shoes are required.

Eye Protection:

Safety glasses or goggles. If splashing can occur, a face shield is advisable.

9. Chemical and Physical Properties

<u>Appearance:</u>	Light yellow liquid
<u>Boiling Point:</u>	No data
<u>Vapor Pressure:</u>	No data
<u>Vapor Density:</u>	No data
<u>Solubility in Water:</u>	Completely soluble
<u>pH:</u>	<1 (acidic)
<u>Specif. Grav./Density:</u>	1.28 g/cm ³
<u>% Volatile:</u>	No data

Material Safety Data Sheet

10. Stability and Reactivity

Stability:

Stable under normal conditions of use and storage.

Incompatibility:

Steel, strong bases, strong oxidizers and strong alkali.

Hazardous Decomposition Products:

Oxides of carbon, phosphoric acid and other unidentified combustible products.

Hazardous Polymerization:

Will not occur.

11. Toxicological Information

Possible Human Health Effects:

Inhalation:

May be harmful if inhaled. Effects will depend upon solution strength and length of time of exposure.

Skin Contact:

Hazardous in case of skin contact (irritant). Non-corrosive for skin. Skin contact may produce burns. Skin inflammation is characterized by itching, scaling, reddening, or occasionally blistering.

Eye Contact:

Very hazardous in case of eye contact (irritant, corrosive). Inflammation of the eye is characterized by redness, watering and itching.

Ingestion:

Ingestion is not expected to be a primary route of exposure.

Other Effects of Overexposure:

May cause damage to the following organs: upper respiratory tract, skin, eyes.

Note to Physician:

Not applicable

12. Ecological Information

Care should be taken to minimize release of undiluted product into the environment.

13. Disposal Consideration

Disposal Method:

Because its pH is below 2, discarded product is a hazardous waste, number D002, 40 CFR 261.22. Dispose of in a facility permitted for hazardous waste.

Container Disposal:

Empty container retains product residue. Remove all product residue from container and puncture or otherwise destroy container before disposal.

14. Transport Information

DOT Hazard Description:

Material Safety Data Sheet

Proper Shipping Name: CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S., (2-PHOSPHONO-1,2,4-BUTANETRICARBOXYLIC ACID)

Hazard Class: 8

Identification Number: UN 3265

Packing group: III

15. Regulatory Information

TSCA (Toxic Substances Control Act) Regulations, 40 CFR 710:

All ingredients are listed on the TSCA Chemical Substances Inventory.

CERCLA and SARA Regulations (40 CFR 355, 370, 372):

This product does not contain any chemicals subject to the reporting requirements under CERCLA.

California Proposition 65:

None

16. Other Information

The information herein is given in good faith, but no warranty, expressed or implied, is made.

HMIS and NFPA Ratings

<u>Hazard:</u>	<u>HMIS Ratings:</u>	<u>NFPA Ratings:</u>
<u>Health:</u>	3	3
<u>Flammability:</u>	1	1
<u>Reactivity:</u>	1	1

HMIS and NFPA Hazard Rating Codes:

0 - Least 1 - Slight 2 - Moderate 3 - High 4 - Severe

NOTE: These HMIS and NFPA Ratings are for "new" product. See appropriate sections of this MSDS for specific hazard information and safe handling instructions.