



ROYAL ENTERPRISES, INC.

Simple Solutions for Coffee and Tea Equipment Maintenance

Dear Urnex® cleaning compound purchaser,

Enclosed you will find the MATERIAL SAFETY DATA SHEET you have requested regarding an URNEX® product specially manufactured for cleaning coffee or tea brewing, storage or serving equipment.

As you read the MSDS please keep in mind that the information, as required by law, is intended to inform workers coming in contact with the product of all possible effects these chemicals might have when used as intended and directed in the workplace.

Since common chemicals are used in these products they are listed by O.S.H.A. (along with thousands of other chemicals) as "Hazardous". This designation does not mean that these products are considered "dangerous". The intended and directed use of our *finished* products, pose no danger to any worker while being used in regular maintenance programs. The quantity of the product that your employees or your customers would use in any given maintenance task is usually 1oz. of product or less.

The M.S.D.S. informs workers concerned with maintenance of equipment that "it is highly recommended that the... equipment "...being cleaned be attended by the person performing the procedure until the entire procedure is completed, all solution and residue is disposed of, and the unit ready for reuse."

We strongly suggest that this recommendation be followed to prevent any mishaps.

Royal Enterprises has been manufacturing URNEX® for over *forty years* and are confident that the products will safely assist you in maintaining equipment properly in order to serve coffee or tea just the way you intended, without the effects of residues and mineral deposits.

We would welcome any comments or suggestions you might have regarding our products, service or responses to your inquiries.

All the employees here at **ROYAL ENTERPRISES, INC.** appreciate your business.

Sincerely yours,

Joseph DiStefano

President

MATERIAL SAFETY DATA SHEET

I. PRODUCT IDENTIFICATION: URNEX URN & BREWER CLEANER

Common Trade Name:	URNEX URN & BREWER CLEANER	Issue Date:	December 1, 1998
Manufacturer:	Royal Enterprises, Inc. 170 Ludlow St. Yonkers, NY 10705 U.S.A.	Emergency Telephone number:	(914) 963-2042
Supplier:	As Above	MSDS Prepared By:	Royal Enterprises, Inc.
Product Use:	Coffee Equipment (Brewing, storage or serving) Cleaner		

II. INGREDIENTS:

NAME	LD 50	LD 50	CAS NUMBER
Hazardous Per OSHA			
Sodium Carbonate	4090	2300	497-19-8
Sodium Silicate	1153	NA	1344-09-8
Sodium Tripolyphosphate	6500	NA	7758-29-4
Sodium Perborate	1200	NA	7775-29-4
Dodecyl Benzene Sodium Sulfonate	1260	NA	25155-30-0

Hazardous as defined by OSHA Hazard Communication Standard in 29 CFR 1910.1200

LD 50 values are given for oral rat exposure in milligrams per kilogram of body weight, and LC 50 values are given for inhalation by rats in milligrams per cubic meter of air for 2 hour exposure.

***NA means the data was not applicable or not available as appropriate.

*Items marked with an asterisk are toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning & Community Right-To-Know Act of 1986 (40 CFR 372). The table below gives the form, when applicable, and de minimis concentrations. Items are potentially reportable only when present above the de minimis concentration, and if manufactured, processed or otherwise used in the indicated form.

CHEMICAL/METAL	DE MINIMIS CONCENTRATION
No SARA 313 Chemicals Present	

Occupational Exposure Limits (TWA in mg/m3 unless noted)

CHEMICAL/ELEMENT	ACGIH TLV	OSHA PEL	OTHER
None of the chemicals in this mixture have established exposure limits			

III. PRODUCT PHYSICAL DATA

PARAMETER	DATA/DESCRIPTION
Physical Form & Appearance	White granular to crystalline powder, slight alkaline odor.
Boiling Point	Not Applicable
Acidity/Alkalinity	Ph 12 as a 1% solution
Water Solubility	Soluble
Specific Gravity or Density	Bulk density 55 lbs./cu. ft.

Melting Point/Freezing Point	Not Applicable, decomposes at high temp.
Vapor Density	Not Applicable
Vapor Pressure	Not Applicable
Reactivity in Water	Non-reactive

IV. FIRE AND EXPLOSION DATA

FLASH POINT	AUTO IGNITION	TEMPERATURE	FLAMMABILITY	LIMITS IN AIR
NA	NA		NA	

Chemical compounds in the mixture and the mixture itself are non-flammable. However, the material should be kept away from extreme heat and fire as the sodium carbonate, sodium silicate and sodium tripolyphosphate decompose when heated and release sodium oxide. Sodium oxide is very corrosive and irritating to the eyes and respiratory tract, and reacts violently with water. Further, sodium tripolyphosphate releases phosphorous oxides upon decomposition. Finally, the sodium perborate is a strong oxidizer, although its impact on a fire should be limited as it is a minor component of the mixture.

The product is sold in small packets, and as such the hazards during a fire described above are more limited than they would be with the same material in bulk quantities.

Extinguishing Media - -	Water spray, carbon dioxide or foam are appropriate media in fires where this material is involved.
Special Fire Fighting Procedures - -	None, however see comment above
Unusual Fire and Explosion Hazards - -	None, however see comment above

V. REACTIVITY DATA

Stability:	Under normal conditions of use, storage and transportation the product is stable. Avoid excessive heat (above 400 F), which can contribute to product decomposition and the release of dangerous oxides of sodium or phosphorus.
Incompatibility	May react violently with strong acids and aluminum. Reaction with aluminum may result in the release of hydrogen gas which is explosively ignitable. Dangerous reaction with aluminum is more likely if the aluminum is heated to red hot conditions, or if the aluminum is finely divided.
Hazardous Decomposition Products	See Information Above.
Hazardous Polymerization	Will not occur.

VI. HEALTH HAZARD INFORMATION

Signs and Symptoms of Exposure	Irritation, burning or smarting of skin, eyes, respiratory tract or gastrointestinal tract See below under individual routes of exposure.
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INHALATION

Acute	Inhalation of dust could cause upper respiratory tract irritation. No inhalation hazard is expected from cold solution mix. Warm or hot solutions may have fumes that would be irritating to the upper respiratory tract. See information under Sections IV and V regarding hazardous decomposition products.
Chronic	No chronic inhalation effects are known.

INGESTION:

Acute:	Swallowing powder may result in moderate irritation and upset of the gastrointestinal tract. Swallowing of solution made per label instructions may result in mild irritation and upset of the gastrointestinal tract.
Chronic:	None known, however repeated ingestion might be expected to result in increased severity of gastric irritation and upset.

SKIN:

Acute:	Material is a slight to moderate skin irritant.
Chronic:	No chronic effects known.

EYES:

Acute:	Powder may be moderate to severe irritant to the eyes. Solution made according to
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Chronic: label instructions a slight to moderate eye irritant.
No chronic effects known.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE Skin abrasions and gastrointestinal tract problems such as ulcers.

VI. EMERGENCY MEDICAL INFORMATION

INHALATION: Remove to fresh air.
INGESTION: Dilute by giving large quantities of water, do not induce vomiting. Get medical attention.
SKIN: Wash with cold water until any symptoms (smarting, irritation) cease. Follow with soap and warm water wash.
EYES: Immediately flush with cold water for 15 minutes. Seek medical attention if irritation persists.

VII. PERSONAL PROTECTION EQUIPMENT

RESPIRATORY PROTECTION: Use NIOSH/MSHA approved respirator for dust/fume and mist in areas of heavy dusting of material.
HANDS, ARMS & BODY: Plastic or rubber gloves to prevent skin contact with hands, otherwise normal work clothing, unless employee is working in areas where bulk quantities of the material are handled, and additional exposure is possible. Contaminated clothing should be removed and washed before reuse.
EYES AND FACE: Wear eye protection: safety glasses, goggles, or face shield as needed.
OTHER CLOTHING AND EQUIPMENT: Eye wash stations and safety showers are advised where potential exists for exposure to eyes or large areas of exposed skin, for example during packaging or other handling of bulk quantities of the material.

IX. SPILL, LEAK AND DISPOSAL PROCEDURES

PRECAUTIONS TO BE TAKEN IN HANDLING & STORAGE: Store in a cool dry area as material is slightly hygroscopic. Avoid mixing in areas where fans or other air currents could cause dusting to occur.
STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Scoop up spilled material, place in closed metal containers, wash residue down drain with warm water.
WASTE DISPOSAL METHOD: Consult federal, state and local regulations, and dispose in compliance with these regulations.

X. CARCINOGEN INFORMATION

CHEMICAL LISTED AS A CARCINOGEN OR POTENTIAL CARCINOGEN?

By National Toxicology Program? NO
By I.A.R.C. Monographs? NO
By OSHA? NO
Others? None found

XI. SPECIAL PRECAUTIONS AND PROTECTION INFORMATION

Use with adequate ventilation. See note under Section IX regarding usage of product for intended use. Inadvertent drinking or other exposure by unknowing persons can be avoided by careful attendance to entire procedure. It is highly recommended that the coffee maker or other unit being cleaned be attended by the person performing the procedure until entire procedure is completed, all solution and residue is disposed of, and the unit is ready for reuse.

NOTE: The information in this MSDS is obtained from sources which we believe are reliable, however, the accuracy or completeness thereof is not guaranteed and no warranty of any kind is made with respect thereto. The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons we assume no liability for the loss and damage incurred from the proper or improper use of such product.

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