



INTERNAL CORRESPONDENCE



Bob -

MINING AND METALS DIVISION

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To (Name) Mr. W. C. Thurber
 Division UCC Mining and Metals
 Location 38th Floor
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 New York, NY 10017

Date ..

December 11, 1973

Originating Dept.

"Calidria" Asbestos

Answering letter date

Copy to

Messrs. W. B. Ackart
 F. H. Ancker
 F. H. Larrison ✓
 O. J. Malacarne
 J. L. Myers
 H. B. Rhodes
 R. G. Woolery

Subject

RG-600 Safety Data

File

DISTRIBUTION
 F. H. Larrison
 R. C. Marston
 R. J. Kraschinsky
 J. M. Ackart
 A. A. Larrison
 C. J. Larrison
 R. G. Woolery
 F. H. Ancker
 O. J. Malacarne
 J. L. Myers
 H. B. Rhodes
 G. L. Vassels
 M. K. West
 File

Attached is a completed Product Safety Bulletin for DMBP (CRLA-1203). It includes potential hazards and health precautions to be taken when handling this liquid reactive resin. You will note that in the unreacted, liquid state, the principle hazards are labile phenols and formaldehyde present in the mix. These are known to cause skin or eye irritation with possible sensitization occurring after repeated contact.

Our use of this material for RG-600 includes advancing or curing CRLA-1203 to an inert solid by heating. Dr. Watson Ackart at Bound Brook reminds me that, at this point, the cured resin is similar to that in pot handles, etc., and is nontoxic. They do not appear to fall under the jurisdiction of the Toxic Substances Act.

We plan to move smartly toward publishing a Material Safety Data sheet for RG-600. It seems to me that this will be a combination of the MSDS for "Calidria" modified by some of the same information for a phenolic molding material. The RG-600 MSDS should be ready for approvals shortly after the first of the year.

R. E. Byrne, Jr.

REB:cjb
 Attachment

AUG 30 1



CHEMICALS
AND
PLASTICS

PRODUCT SAFETY BULLETIN

DESIGNATION: CRLA-1203

DATE 10/30/73

FORMULA OR COMPOSITION: para tertiary butyl phenol / formaldehyde heat reactive resin / water solution.

PHYSICAL PROPERTIES:

Boiling Point, 760 mm. Hg NA °C (NA °F.)

Specific Gravity at 20/20°C. 1.08

Freezing Point NA °C.

Solubility at 20°C., % by Wt.

In water very low

Water in 20% contained (no added)

Vapor Pressure at 20°C NA mm. Hg

Flash Point, °F. NA (method)

contained water boils before "flash point" is reached

Flammability Limits in Air, % by Volume

Lower NA

Upper NA

Autoignition Temperature, °F. NA

Average Pounds per Gallon at 20°C. 9

Per Cent Volatiles by Volume 20%

Appearance and Odor Medium viscosity syrup with

phenolic type odor. Tan to

Brown color

NA = not applicable

FIRE FIGHTING MEDIA AND PROCEDURES:

Not flammable until water has been driven off.

Polymerized resin has poor flammability characteristic of phenolic resins generally. Quench with water, CO₂ etc.

STABILITY:

Unstable to heat

Stable when refrigerated.

Incompatibility NA

Hazardous Thermal Decomposition Products Formaldehyde, phenols

Polymerization to a solid when heated

EMERGENCY PHONE NUMBERS:

A00302

Dr. C. U. Dernehl, 212/551-4785

Dr. K. S. Lane, 212/551-4787

212/551-2345 (nights, weekends, and holidays); or 304/744-3487

C. P. Carpenter, Ph.D., 421/327-1020

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Technology Manager: Please return carbon copies of pages 1 and 2 to:

JOAN ALONGE, Promotion and Advertising, Chemicals and Plastics, 270 Park Avenue, New York, N.Y. 10017

Done 12/11/73
RAB

SPILL AND LEAK PROCEDURES:

Soak up large spills and incinerate or bury in
land fill. Flush small spill to sewer.

Waste Disposal Method

Incineration

PERSONNEL PROTECTION: safety glasses. Rubber gloves.

HEALTH PRECAUTIONS: Avoid contact with skin and eyes.
Repeated skin contact causes sensitization
and skin rash.

In case of contact, flush eyes with water.
Wash skin contact with soap and water.

STORAGE AND HANDLING: Keep Cool, preferably refrigerated

PRECAUTIONARY LABELING:

Not available but warns
of skin irritation.

FOR INDUSTRY USE ONLY

A00303

METALS CONTENT:

We do not routinely test our bulk organic chemicals, silicones, and plastics for metals such as copper, lead, and mercury. Our chemicals and plastics are manufactured under controlled conditions designed to minimize metal contamination. Thus, we are confident that they would not contain harmful amounts of these materials. This belief is supported by a tabulation of analyses of random samples of several products (see below).

In the tabulated data below, [<] indicates a concentration lower than the minimum which the method used will determine.

The methods used in obtaining the analytical data are:

1. Mercury was determined using "flameless" atomic absorption using a background compensator where necessary (most esters).
2. Zinc and cadmium were determined by atomic absorption.
3. Arsenic was determined using the Codex colorimetric procedure — (silver diethyl-dithiocarbamate).
4. All other elements were determined by emission spectroscopy.

METALS CONTENT - PPM

	Aluminum	Arsenic	Cadmium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Tin	Zinc
Acetone	0.2	<1.0	<0.05	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	0.23
✓ Butyl Phenol 4T	0.5	<1.0	<0.05	<0.1	0.2	0.6	<0.1	<0.1	<0.1	<0.05	0.1	<0.1	0.75
Butyl Acetate	<0.1	<1.0	<0.05	<0.1	0.4	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	0.17
Butyl CELLOSOLVE	<0.1	<1.0	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.02
CELLOSOLVE Acetate	<0.1	<1.0	<0.05	<0.1	0.1	0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	0.4
Isopropyl Acetate	<0.1	<1.0	<0.05	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.02
Isopropanol	0.1	<1.0		<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.05	0.1	<0.1	
Methyl Ethyl Ketone	<0.1	<1.0	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	0.08
Methyl Isobutyl Ketone	<0.1	<1.0	<0.05	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	0.05
Monoethanolamine	<0.1	<1.0	<0.05	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	1.25
SYNASOL Solvent PM-3224	<0.1	<1.0	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	0.1
TERGITOL NPX	<1.0	<1.0	<0.05	<1.0	<1.0	0.1	<0.1	<1.0	<1.0	<0.05	<0.1	<0.1	<0.02
BAKELITE Phenolic Resin CKM 2400	0.8	<1.0	<0.05	<1.0	0.3	2.0	0.1	0.6	<0.1	<0.05	0.4	0.1	0.5
BAKELITE Epoxy Resin ERL-2774	0.2	<1.0	<0.05	<0.1	0.7	0.3	0.2	<0.1	<0.1	<0.05	2.0	<0.1	0.24
BAKELITE Vinyl Resin VMCC	3.6	<1.0	<0.05	1.9	0.4	2.6	3.0	0.2	<0.1	<0.05	0.8	0.1	0.7
CARBOWAX PEG-600	1.7	<1.0	<0.05	<0.1	<0.1	0.6	<0.1	<0.1	0.1	<0.05	1.0	<0.1	<0.02
CELLOSIZ HEC QP 300H	6.0	<1.0	<0.05	<1	2	8	1	<1	<1	<0.05	<1	1	0.25
CELLOSIZ HEC QP 4400	6.0	<1.0	<0.05	<1	2	4	1	<1	<1	<0.05	<1	<1	0.25
UCAR Latex 180	0.5	<1.0	<0.05	<0.1	<0.1	0.3	1.5	<0.1	<0.1	<0.05	<0.1	<0.1	0.2
UCAR Latex 360	0.8	<1.0	<0.05	<0.1	0.1	0.4	<0.1	0.1	<0.1	<0.05	<0.1	<0.1	1.5
UCAR Latex 380	0.6	<1.0	<0.05	0.3	0.2	0.7	<0.1	<0.1	<0.1	<0.05	0.1	<0.1	1.1

< INDICATES A CONCENTRATION LOWER THAN THE MINIMUM WHICH THE METHOD USED WILL DETERMINE.

A00304