

FYI-0794-000984

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REILLY TAR & CHEMICAL CORPORATIC

FYI-94-000984
INIT 87/14/94

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84940000084



January 3, 1984

TR-422

Mr. Martin Greif, Executive Secretary
TSCA Interagency Testing Committee
Environmental Protection Agency (TS-792)
401 M Street, S.W.
Washington, D.C. 20460

Re: 103-74-2 2-Pyridineethanol

Dear Mr. Greif:

I am pleased to send you some information and comments regarding the above-named compound as requested in the Federal Register of November 9, 1983. I have previously given information by telephone to Mr. Lou Borghi of Dynamac Corporation. Specification and material safety data sheets for this compound are enclosed with this letter. We are aware of no unpublished health or safety studies.

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By way of background, Reilly appears to be the only U.S. manufacturer of 2-pyridineethanol. Essentially all of Reilly's production is retained for use as a site-limited intermediate; more than 90% of the production is transformed further into 2-vinylpyridine without isolation.

Volume

The major use of 2-vinylpyridine is in a terpolymer tire cord adhesive. The latest Chemical Economics Handbook (SRI 1983) product review on pyridine and pyridine bases reports that 1981 production of terpolymer was 20.8 million pounds. Assuming this terpolymer was typically 15% 2-vinylpyridine, calculated consumption of the latter was 3.1 million pounds, and of 2-pyridineethanol, 3.6 million pounds (based on molecular weight difference). The U.S. 2-vinylpyridine market has declined severely in the 1970's and 1980's as the volume and size of tires produced in the U.S. has decreased.

Relatively small volumes (less than 10% of production) of 2-pyridineethanol are used by Reilly as a site-limited intermediate for the production of specialty chemicals. Sales of 2-pyridineethanol outside of Reilly are negligible.

Copy sent to Perry
with attachments
1/10/84.

REILLY TAR & CHEMICAL CORPORATION

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Non-Occupational Exposure

No exposure of the public occurs.

Occupational Exposure

As noted above, over 90% of the 2-pyridineethanol manufactured is further transformed into 2-vinylpyridine without isolation. Fewer than ten persons work in this operation, and have the potential of exposure only when sampling; protective equipment is required during sampling.

The remainder of the 2-pyridineethanol is chemically transformed into specialty chemical products in multi-purpose, multi-product plants. Fewer than 50 persons work in these facilities, and work on processes using 2-pyridineethanol only a small fraction of the time. Potential chemical exposure in these facilities is generally limited to sampling, and protective equipment is required.

Environmental Exposure

It seems reasonable to assume that, although it has not been detected, traces of 2-pyridineethanol may enter Reilly's process waste water, which is sent to a POTW by city sewer. No studies of biodegradability have been carried out on this compound, but many structurally similar compounds have been shown to undergo biodegradation by sewage bacteria. Because of its water solubility, 2-pyridineethanol is unlikely to accumulate in the environment.

Structure-Activity Relations

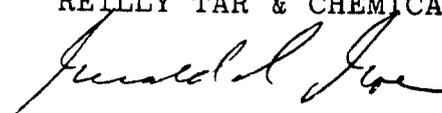
No alkyipyridine has been shown to cause cancer, gene mutations, or birth defects.

Summary

In view of the extremely low potential for human or environmental exposure to 2-pyridineethanol, I can see no valid reason for suggesting health or environmental effects testing.

Yours very truly,

REILLY TAR & CHEMICAL CORPORATION



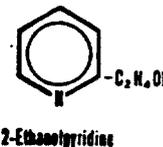
Gerald L. Goe
Director of Research

MATERIAL SAFETY DATA SHEET

Required under USDL Safety and Health Regulations for Ship Repairing,
Shipbuilding, and Shipbreaking (29 CFR 1915, 1916, 1917)

SECTION I

| | | |
|---|---|---|
| MANUFACTURER'S NAME Reilly Tar & Chemical Corporation | | EMERGENCY TELEPHONE NO. 317-247-8141 |
| ADDRESS (Number, Street, City, State, and ZIP Code) 151 North Delaware Street, Indianapolis, Indiana 46204 | | |
| CHEMICAL NAME AND SYNONYMS 2-Ethenolpyridine | TRADE NAME AND SYNONYMS 2-EP | |
| CHEMICAL FAMILY Pyridine | FORMULA C ₇ H ₉ NO | 3600 |



SECTION II - HAZARDOUS INGREDIENTS

| PAINTS, PRESERVATIVES, & SOLVENTS | % | TLV (Units) | ALLOYS AND METALLIC |
|---|---|-------------|--|
| PIGMENTS | | | BASE METAL |
| CATALYST | | | ALLOYS |
| VEHICLE | | | METALLIC COATINGS |
| SOLVENTS | | | FILLER METAL PLUS COATING OR CORE FLUX |
| ADDITIVES | | | OTHERS |
| OTHERS | | | |
| HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES | | | % TLV (Units) |
| | | | |
| | | | |
| | | | |
| | | | |

SECTION III - PHYSICAL DATA

| | | | |
|--|-----------------------------|--|-------|
| BOILING POINT (°F.) @ 100mm (170°C) | 338°F | SPECIFIC GRAVITY (H ₂ O=1) @ (25°C) 77°F | 1.091 |
| VAPOR PRESSURE (mm Hg.) | | PERCENT, VOLATILE BY VOLUME (%) | |
| VAPOR DENSITY (AIR=1) | | EVAPORATION RATE (_____ = 1) | |
| SOLUBILITY IN WATER @ (20°C) 68°F. | in all proportions | Freezing Point (-12°C) | 10°F. |
| APPEARANCE AND ODOR | Liquid, Characteristic Odor | | |

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

| | | | |
|---|------------------|-----|-----|
| FLASH POINT (Method used) (117°C) 242°F. TOC | FLAMMABLE LIMITS | LeI | UeI |
| EXTINGUISHING MEDIA Dry Chemical, CO ₂ , Foam | | | |
| SPECIAL FIRE FIGHTING PROCEDURES | | | |
| Fire fighters should wear self-contained breathing apparatus. | | | |
| UNUSUAL FIRE AND EXPLOSION HAZARDS | | | |
| | | | |

