

MITSUBISHI MONSANTO CHEMICAL COMPANY

FROM LOCATION : Tokyo

DATE : December 9, 1968

SUBJECT : Bran Oil Poisoning
by Kaneclor

REFERENCE : MKKA

cc: Messrs.

W. Richard - St. Louis

P. G. Benignus - "

D. Roush - "

S. Shaw - "

✓ J. R. Durland - Tokyo

✓ H. Shiromizu - "

TO : Mr. D. A. Olson
Monsanto Company
St. Louis, Mo.

Dear Mr. Olson:

If you are informed of the recent case of bran oil poisoning by chlorinated biphenyl used as a heat transfer fluid at an edible oil manufacturer in Japan, you must wonder how such could happen. By the official investigation and inspection, now it is 100% certain that the Kaneka's product leaked through pinholes (See attached excerpts from Japan Times). A great deal of sensation is prevailing all over the country. In order to defend chlorinated biphenyl from further censure, a director of Kaneka came to MMK to ask for help from MC. He told us that they dearly need technical data and literature which can convince the Welfare Ministry that the chlorinated compound as a heat transfer medium can be and is used quite safely, for many years in the United States and many other countries in the world. He is afraid that, if otherwise, the Government may classify chlorinated biphenyl as a poisonous drug and, if so, all kinds of troublesome regulations, whether necessary or unnecessary, will be imposed on users for the handling of the "drug."

We are collecting data ourselves but, in view of the importance of the matter, we would most appreciate your providing us with the information which may answer the following questions?

1. What kind of hygienic regulations are prescribed or excersised, in U.S., to handle chlorinated biphenyl from toxicity standpoint?
2. What data or literature are available as concerned with human toxicity of chlorinated biphenyl?

Kazuo Hoshino
Kazuo Hoshino
Director of Marketing

DSW 162309

nov. 3, 1961

Poisonous Compounds Found in Rice Bran Oil

FUKUOKA (Kyodo)—A research group at Kyushu University has extracted a considerable amount of poisonous organic chlorine compounds from rice bran oil which may have caused the recent case of mass poisoning in western Japan, it was revealed Saturday.

A spokesman for the group hinted at the possibility that the organic compounds might have caused the mass poisoning, which has affected more than 10,000 persons in western Japan.

The organic chlorine compounds, amounting to 4,000 to 6,000 PPM (parts per million), were discovered when Prof. Kaoru Inagami of the Faculty of Agriculture and Prof. Sumisaburo Maki of the Faculty of Medicine jointly analyzed five samples of rice bran oil submitted by patients, he said.

The experts' group was conducting an analysis of fats taken from patients' pimples in an attempt to determine the relationship between the organic compounds and the mass poisoning, he said.

In the United States, the tolerance of the organic com-

pounds is set at one milligram per one cubic meter of air, equivalent to 0.001 ppm, he said.

The skin of a victim of poisoning by organic chlorine becomes darker and "chloric pimples" break out. In a serious case, the patient shows symptoms of jaundice and liver trouble, the spokesman explained.

Similar findings had been revealed by the National Institute of Hygienic Sciences Oct. 27 after it conducted a series of analyses of the rice bran oil produced by the Kanemi Warehouse Co. in Fukuoka, using X-ray and chromatography.

nov. 7, 1961

Rice Bran Oil Plant Inspected by Experts

KITAKYUSHU (Kyodo)—Kyushu University scientists and others Wednesday examined the manufacturing processes in operation at Kanemi Warehouse Co. whose rice bran oil, contaminated with organic chlorine compound, caused widespread poisoning. Results of the check were not made known immediately.

This was the first time an inspection was conducted by technical experts while past checks at the oil manufacturing plant had been made by administrative officials.

The specialists were from the Kitakyushu Municipal Government and Kyushu University, including Prof. Hisashi Shinohara.

They were accompanied by four officers of the Fukuoka prefectural police.

The experts were briefed

for one hour and a half on food oil production methods by the plant manager.

One of the deodorizing tanks, suspected of having been contaminated with chlorine, measuring two meters tall and one and half meters in diameter was most thoroughly checked.

A 20-meter pipe in which Kanekuroru, the organic chlorine compound, circulated ran inside the tank. The plant manager said the chlorine had been used as a catalyst.

The bottling and canning processes (the food oil was bottled or canned, depending on the demand of consumers) were also examined and photographed.

Food specialists of Kyushu University and officials of the Fukuoka Prefectural Health Department also attended the inspection as observers.

Nov. 17, 1968

Bran Oil Poisoning Traced to Pipe Leak

KITAKYUSHU (Kyodo)—A seven-man expert group at Kyushu University Saturday discovered that the organic chlorine agent blamed for the mass rice bran oil poisoning in western Japan, had leaked from pinholes in a pipe through which the chemical agent circulated.

The group, headed by Prof. Hisashi Shinohara at the university's Faculty of Engineering, discovered three pinholes in the circulation pipe in a deodorizing tank during an on-the-spot investigation at a plant here of the Kanemi Warehouse Co., manufacturer of the rice bran oil, Saturday morning.

The deodorizing tank is a part of the processing system for manufacturing rice bran oil.

In conducting the investigation, the group took an air compressor, a vacuum pump and other devices for testing from the university.

They discovered the pinholes when they, after cleansing the pipe with steam, poured water into it and sent compressed air into the pipe.

An amount of 114 cc of air leaked from a pinhole in five minutes and 14 cc from a second hole in 10 minutes. But a third pinhole was too small

to determine the amount of air leakage, the investigators reported.

They said it was almost certain that the organic agent diphenylchloride, called "Kanekuroru," had leaked through those pinholes and became mixed with rice bran oil.

The circulation pipe in question, made of stainless steel, was 20 meters long, two millimeters thick and had an inside diameter of two centimeters.

According to the company, the pipe was out of use between last December and late January and was temporarily used between Jan. 31 and Feb. 7. It was out of operation again between mid-February and mid-April.

Victims of the mass poisoning are reported from among those who ingested the company's rice bran oil made between Feb. 5 and 7.

The expert group explained that the holes must have been closed by scale by Feb. 7 and no significant amount of leakage had since occurred.

Sannosuke Kato, president of the company, told the press later that he had not expected the circulation pipe to be faulty.

His company was determined to do whatever it can to discharge its responsibility

ties for the mass poisoning, he said.

Meanwhile, the Fukuoka Prefectural Police said that they would begin investigation to decide whether the manufacturer should be criminally responsible, as soon as they receive an official report on Saturday's investigation.

DSW 162311