

56th All-Ohio Safety and Health Congress & Exhibit May 14-16, 1986 Cincinnati Convention Center, Cincinnati, Ohio



IN SAFETY AND HEALTH

March 28, 1986

Ms. Judy Spencer
Legal Department
Industrial Commission of Ohio
246 North High Street
Columbus, Ohio 43215

RE: 888072-22
Francisco Gomez, Jr.
U.S. Steel Corporation

Dear Ms. Spencer:

On February 27, 1986, U.S. Steel in Lorain was visited to gather information on the above claim. John Clark, safety director, was interviewed and conducted a plant tour.

The claimant's work history and medical information are in the facsimile file.

The claim alleges exposure to a thread coupling compound caused nausea, headache, diarrhea, neuro-behavioral effects and hospitalization. Dr. R. C. Castro, M.D., says the claimant is allergic to the threading compound.

The threading compound, noted in the claim, is an industrial grease. This grease was applied to oil drilling pipe threads. This provides antirust properties. The grease was applied with a brush to a room temperature pipe.

The grease use was discontinued many months prior to the Commission visit.

The manufacturer's material safety data sheet of January, 1983, notes the following:

1. Caution: May be harmful when swallowed. Contains lead.
2. Exposed employees should exercise reasonable personal cleanliness. Wash exposed skin several times daily.

7

3. No inhalation potential exists at room temperature.
4. Dermal, inhalation and oral exposure suggests the grease is practically nontoxic.

The grease contains mineral oil, zinc, lead and copper.

Exposure to this grease would come from ingestion, not inhalation.

Mineral Oil¹ - Stoddard Solvent

Millions of industrial and domestic workers have been exposed to mineral oil with minimal health effects. Apart from skin defatting and irritation, mineral oil is of little serious health effect.

Zinc¹

The toxicity of zinc compounds by mouth is low. The classic metal fume fever is a result of inhalation of zinc oxide fumes not ingestion. The fever is considered innocuous, temporary and not serious.

Lead¹

Many lead compounds are sufficiently soluble in body fluids to be toxic. lead intoxication can produce central nervous system effects, gastrointestinal disturbances, anemia and peripheral neuropathy. Digestion concentration is not mentioned but effects are gauged against blood lead levels.

Copper¹

Copper is an essential element in human metabolism. A daily uptake, from food, occurs. In excessive quantities, a sweet or metallic taste, nausea, metal fume fever and skin discoloration may occur. Industrial ingestion exposure levels are not mentioned in any literature evaluated.

Conclusions

This grease does not present a health hazard by inhalation. Dermatologic effects would be expected. ingestion could be a route of exposure but collective effects are not documented.

Considering individual susceptibility, personal hygiene and the grease components potential synergistic effects, a health potential for the claimant exists.

Respectfully submitted,

Richard Wilder

Richard Wilder
Industrial Hygienist

RW/klp