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5 pages

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February 19, 2009

Mr. John Sparano
Woodhill Plating Company
9114 Reno Avenue Avenue
Cleveland, OH 44105

RE: File review at Cleveland Division of Air Quality (CDAQ)
Friday, February 20, 2009 @ 2:30 P.M.

John:

I have an appointment with the CDAQ Friday @ 2:30 P.M. to review the Woodhill Plating Company's files.

While I'm there I intend to present the Agency with information (including calculations) that support my contention that the automatic nickel/chrome rack plating line is exempted from obtaining an OEPA PTIO. I have attached copies of the information I intend to submit.

I would like to have answers to the following questions in the event the CDAQ does not accept my rationale:

1. Is there a brief description of the process. Maybe something the vendor put together,
2. Are any of the tanks heated? If yes, how?
3. Are polyethylene balls still being used to cover the plating solutions?
4. Is there mechanical ventilation to exhaust fumes from the tank(s)?
5. Are there stacks or exhaust points from the process?
6. If we have to prepare a PTIO application, I'll need the dimensions of the rear building (where the automatic line is located). That is, the length, width, height and the overall length from the front of the building (by Reno Avenue) to the rear of the building (near Prince Avenue).

Thank you

Very truly yours,



Thomas D. Kmiec, J.D., P.E.
Professional Engineer

EMISSION FACTORS FOR TOXIC AIR CONTAMINANTS OF CONCERN TO THE METAL FINISHING INDUSTRY

**A report of source tests conducted by the
South Coast Air Quality Management District and
Metal Finishing Association of Southern California
with collaboration by the
California Air Resources Board**

**Metal Finishing Association of Southern California
500 Van Nuys Boulevard
Suite 305
Sherman Oaks, California 91403**

April 1999

ATTACHMENT 1



TABLE 1
EMISSION FACTORS FOR TOXIC AIR CONTAMINANTS OF CONCERN TO THE METAL FINISHING INDUSTRY

Process	Emission Factor
Cadmium Plating	0.15 mg/A-H
Copper Plating	0.59 mg/A-H
Chromium Plating	5.20 mg/A-H
Tin Plating	3.86 mg/A-H
Zinc Plating	6.40 mg/A-H
Nickel Plating w/o Air Agitation*	0.057 mg/A-H
Nickel Plating with Air Agitation *	6.5 E-6 lb./hr-ft ² tank or 11.6 E-6 lb./(hr-scfm air)
Electroless Nickel *	7.5 x 10 ⁻⁷ lb./hr-ft ² tank
Hydrochloric Acid Etching *	3.00 E-5 lb./(hr-ft ² tank - % HCl)
Sodium Hydroxide Spray *	32 E-4 lb./(hr-gpm - % NaOH)
Sodium Hydroxide Electrocleaning *	5.4 x 10 ⁻⁷ lb./hr-ft ² tank - % NaOH
Sodium Hydroxide Etch	Assumed same as NaOH electrocleaning
Sodium Hydroxide Soak	Assumed same as NaOH electrocleaning
All other acids and bases **	
Heated	0.01 lbs/hr-ft ² tank
Cold	0.001 lbs/hr-ft ² tank

- Data developed in 1998 by the Metal Finishing Association of Southern California and the South Coast Air Quality Management District

** Emission factors used by the South Coast Air Quality Management District unless source test data are provided

OHIO ADMINISTRATIVE CODE

OAC 3745-15-05 "De Minimis" air contaminant source exemption

(C) The exemption contained in paragraph (B) of this rule shall not apply to a source if any of the following applies:

(1) A requirement established under the federal Clean Air Act or regulations adopted under it limits the emissions of an air pollutant from the source to less than ten pounds per day or restricts the operation of the source in a manner equivalent to an emission limit of less than ten pounds per day;

(2) The source is subject to an emission limit adopted by the director to achieve and maintain the national ambient air quality standards or a rule adopted by the director to protect public health and welfare which limits the **emissions from the source to less than ten pounds per day of an air pollutant or restricts the operation of the source** in a manner equivalent to an emission limit of less than ten pounds per day;

(3) The source emits radionuclides;

(4) The source **alone or in combination with similar sources at the same facility, would result in potential emissions of any air pollutant in excess of twenty-five tons per year**. In determining the total emissions from a group of similar sources, an enforceable permit emission limit shall be used in lieu of the potential to emit for such source or sources; or

(5) The source emits more than **one ton per year of any hazardous air pollutants or combination of hazardous air pollutants**.

Not De Minimis

PLATING PROCESS SYSTEMS, inc. MATERIAL SAFETY DATA SHEET



* * * * SECTION I - IDENTIFICATION * * * *

DATE:

September 24, 2007 (revised date) Previous 7/06/04

SUPPLIER'S NAME:

Plating Process Systems, inc.

ADDRESS:

7561 Tyler Blvd. #5 Mentor, OH 44060

CHEMICAL NAME and SYNONYM:

Proprietary mixture

CHEMICAL FAMILY:

Alkyl succinate

EMERGENCY TELEPHONE:

(440) 951-9667

PRODUCT NAME and PPS CODE NUMBER:

Anti-Pitter AP-A2 30127

FORMULA:

Proprietary

* * * * SECTION II - HAZARDOUS INGREDIENTS * * * *

COMPONENT:

Proprietary mixture - not regulated

%

TLV

* * * * SECTION III - PHYSICAL DATA * * * *

BOILING POINT:

212 °F (100 °C)

SPECIFIC GRAVITY: (Water = 1)

1.008

APPEARANCE and ODOR:

Sl. cloudy solution, mild soapy odor.

OTHER:

* * * * SECTION IV - FIRE and EXPLOSION DATA * * * *

FLASH POINT:

N/A

FLAMMABILITY LIMITS:

N/A

EXTINGUISHING MEDIA:

Water fog

NFPA HAZARD CLASSIFICATION:

HEALTH

0

FLAMMABILITY

0

REACTIVITY

0

* * * * SECTION V - REACTIVITY DATA * * * *

STABILITY:

Stable

AVOID:

INCOMPATIBILITY:

HAZARDOUS DECOMPOSITION PRODUCTS:

Oxides of carbon if combusted.

POLYMERIZATION:

No

AVOID:

SECTION VI - HEALTH HAZARD DATA * * * *

ROUTES of ENTRY:

EYES:

X

SKIN:

X

INHALATION:

N/A

INGESTION:

X

EFFECTS of OVEREXPOSURE:

EYE CONTACT:

Irritation

SKIN CONTACT:

Irritation, dermatitis.

INHALATION:

INGESTION:

Irritation of gastrointestinal tract.

(CONTINUED OVER)

CARCINOGENICITY: NTP: IARC: OSHA:

CHRONIC HEALTH HAZARDS:

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:

May aggravate preexisting medical conditions.

EMERGENCY and FIRST AID PROCEDURES:

EYE and SKIN CONTACT:

Flush with water for at least 15 minutes. If irritation persists, seek medical assistance.

INHALATION:

INGESTION:

Drink water or milk to dilute. Seek medical assistance.

*** * * * SECTION VII - HANDLING PRECAUTIONS * * * ***

STEPS TO BE TAKEN IN THE EVENT MATERIAL IS RELEASED OR SPILLED:

Absorb with noncombustible absorbent, flush area with water.

WASTE DISPOSAL METHOD:

Dispose in a sanitary landfill.

HANDLING/STORAGE PRECAUTIONS:

Keep containers closed.

*** * * * SECTION VIII - PROTECTION INFORMATION * * * ***

VENTILATION:

Recommended but not required.

LOCAL EXHAUST:

CHEMICAL RESISTANT GLOVES:

Required

EYE PROTECTION:

Required

OTHER:

WORK PRACTICES:

Observe accepted hygienic work practices.

*** * * * SECTION IX - REGULATIONS * * * ***

TSCA INVENTORY STATUS

This product does not contain any substances subject to Section 12(b) export notification.

All components of this product are in compliance with the inventory listing requirements of the TSCA Chemical Substance Inve

RECRA Waste No:

CERCLA: Reportable quantity: None

While the information and recommendations set forth herein are believed to be true and accurate as of the date shown, PLATING PROCESS SYSTEMS, inc. makes no warranty in respect hereto and disclaims all liability from reliance thereon.

PLATING PROCESS SYSTEMS, inc.

MATERIAL SAFETY DATA SHEET

* * * * SECTION I - IDENTIFICATION * * * * *

DATE:

October 11, 2005 (revised health/regulation data) Previous 7/06/04

SUPPLIERS NAME:

Plating Process Systems, inc.

ADDRESS:

7561 Tyler Blvd. #5 Mentor, OH 44060

CHEMICAL NAME and SYNONYM:

Trade secret

CHEMICAL FAMILY:

Mixed anionic surfactants

EMERGENCY TELEPHONE:

(440) 951-9667

PRODUCT NAME and PPS CODE NUMBER:

TVC-MS (Wetting Agent) 30553

FORMULA:

Trade secret

* * * * SECTION II - COMPOSITION/INFORMATION ON INGREDIENTS * * * * *

COMPONENT:	%	CAS#
Water	94%	7732-18-5
Organic Salt	6%	
* Trade secret		

* * * * SECTION III - PHYSICAL DATA * * * * *

BOILING POINT:

212 °F (100°C)

SPECIFIC GRAVITY: (Water = 1)

Approx. 1.007

APPEARANCE and ODOR:

Sl. cloudy solution with pleasant odor.

OTHER:

pH approx. 7

* * * * SECTION IV - FIRE and EXPLOSION DATA * * * * *

FLASH POINT:

>200 °F (>93°C)

FLAMMABILITY LIMITS:

EXTINGUISHING MEDIA:

Water, carbon dioxide, dry chemical foam.

NFPA HAZARD CLASSIFICATION:

HEALTH

FLAMMABILITY

REACTIVITY

0

0

0

STABILITY:

Considered stable.

AVOID:

INCOMPATIBILITY:

HAZARDOUS DECOMPOSITION PRODUCTS:

May produce oxides of carbon if combusted.

POLYMERIZATION:

Not expected.

AVOID:

SECTION VI - HEALTH HAZARD DATA * * * * *

ROUTES of ENTRY:

EYES:

Y

SKIN:

Y

INHALATION:

N

INGESTION:

Y

EFFECTS of OVEREXPOSURE:

EYE CONTACT:

Irritation

SKIN CONTACT:

Prolonged exposure may produce dermatitis.

INHALATION:

INGESTION:

May cause irritation of the gastrointestinal tract.

(CONTINUED OVER)

CARCINOGENICITY: NTP: IARC: OSHA:

N/A

CHRONIC HEALTH HAZARDS:

N/A

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:

Pre-existing medical conditions may be aggravated.

EMERGENCY and FIRST AID PROCEDURES:

EYE and SKIN CONTACT:

Eyes: Flush at least 15 minutes with flowing water. Skin: Wash with soap and water.

INHALATION:

Remove from exposure. If there is difficulty in breathing, give oxygen. Seek medical attention if symptoms persist.

INGESTION:

Wash out mouth with water. Have victim drink 1-3 glasses of water to dilute stomach contents. Call a physician.

*** * * * SECTION VII - HANDLING PRECAUTIONS * * * ***

STEPS TO BE TAKEN IN THE EVENT MATERIAL IS RELEASED OR SPILLED:

Absorb spills with noncombustible absorbent, scoop into waste disposal container.

WASTE DISPOSAL METHOD:

Dispose according to government regulations.

HANDLING/STORAGE PRECAUTIONS:

Store at room temperature. May become cloudier at cooler temperatures. Keep containers closed.

*** * * * SECTION VIII - PROTECTION INFORMATION * * * ***

VENTILATION:

Recommended

LOCAL EXHAUST:

Recommended

CHEMICAL RESISTANT GLOVES:

Required

EYE PROTECTION:

Glasses or face mask.

OTHER:

Suitable protective equipment.

WORK PRACTICES:

Follow accepted industrial hygiene procedures for handling materials.

*** * * * SECTION IX - REGULATIONS * * * ***

TSCA INVENTORY STATUS

All components of this product are in compliance with inventory listing requirements of the U.S. TSCA Chemical Substance Inventory.

RECRA Waste No:

CERCLA: Reportable quantity: None

While the information and recommendations set forth herein are believed to be true and accurate as of the date shown, PLATING PROCESS SYSTEMS, inc. makes no warranty in respect hereto and disclaims all liability from reliance thereon.

1.0 NICKEL EMISSIONS:

1.1 Basis of Calculations:

		Volume	Surface Dimensions	Maximum Operating Amps	Rectifier Operating Hours
1.1.1	<u>Tanks:</u>				
	<u>NiD-1</u>	1300 g	3' x 16' (48 ft ²)	1500	1528
	<u>NiD-2</u>	3400 g	3' x 24' (72 ft ²)	3000	792

1.1.2 Emission Factor: 6.5×10^{-6} lbs Ni/hr-ft² (See Table 1, Attachment 1)

1.2 Calculations: Nickel Emissions in Pounds/Day:

(Reference 1 - "NAMF - Emission Factors for Toxic Air Contaminants of Concern to the Metal Finishing Industry, April, 1999 - TABLE 1") (See Attachment 1)

1.2.1 NiD-1 Nickel w/Air Agitation:

• 6.5×10^{-6} lbs Ni/hr-ft² x 8760 hrs/yr x 48 ft² = 2,733,120 x 10⁻⁶ lbs/yr = 2.78 lbs Ni/Year
 • 2.78 lbs Ni/Year/365 days/year = 7.5×10^{-3} lbs Ni/Day

1.2.2 NiD-2 Nickel w/Air Agitation:

• 6.5×10^{-6} lbs Ni/hr-ft² x 8760 hrs/yr x 72 ft² = 4,099,680 x 10⁻⁶ lbs/yr = 4.10 lbs Ni/Year
 • 4.10 lbs Ni/Year/365 days/year = 11.0×10^{-3} lbs Ni/Day

TOTAL Ni Emissions = 18.5×10^{-3} lbs/day

2.0 CHROMIUM EMISSIONS:

2.1 Basis of Calculation:

2.1.1 Cr-1 Chromium Plating

- Use maximum Operating Amps @ 3000 amps
- Use maximum operating time @ 8760 hours

2.1.2 5.20 mg Cr/A-H

1.3 Calculations: Chromium Emissions in Pounds/Day:

(Reference 1 - "NAMF - Emission Factors for Toxic Air Contaminants of Concern to the Metal Finishing Industry, April, 1999 - TABLE 1") (See Attachment 1)

1.3.1 Cr-1 Chromium Plating

• 5.2 mg Cr/A-H x 3000 amps x 8760 hrs/year = 136,656,000 mg Cr/year
 • 136,656,000 mg Cr/year x 1 lb/454,000 mg = 301 lbs Cr/year
 • 301 lbs Cr/year x 1 year/365 days = **0.82 lbs Cr/day**

TOTAL Cr Emissions = 0.82 lbs Cr/day

3.0 CONCLUSIONS:

3.1 TOTAL Nickel and Chromium Emissions from this Emission Unit

0.0185 lbs/day Ni + 0.82 lbs Cr/day = **0.84 lbs air contaminants/day**

3.2 REGULATORY EVALUATION:

[Reference; OAC 3745-15-05 (B), [C](4) and [C](5)](See Attachment 2)

For the reasons enumerated above and pursuant to Sections (B), [C](4) and [C](5) of OAC 3745-15-05, it is the opinion of this writer that this subject emission unit is exempt from obtaining an OEPA PTIO.