

Supporting Flight Excellence

August 7, 2024

Alberto Jasso Senior Air Quality Engineer South Coast Air Quality Management District 21865 Copley Drive Diamond Bar, CA 91765-4178

RE: REQUEST FOR REMOVAL OF WASTE TREATMENT PERMENENT TOTAL ENCLOSURE (PTE) FROM RISK REDUCTION PLAN (RRP), DATED JULY 24, 2015, AND APPLICATION NUMBER 577551.

Dear Mr. Jasso,

Thank you for your email of July 18, 2024, allowing Hixson Metal Finishing (HMF or Hixson) the opportunity to provide additional information pertaining to the request to have the PTE requirement removed from the Risk Reduction Plan and permit application number 577551.

Risk Reduction Plan

In 2014, Hixson was contacted by the SCAQMD and informed that an air quality monitor that was part of the MATES IV program located in the area was receiving elevated readings of chromium VI emissions. This started a long process of investigations on the part of both SCAQMD and Hixson to find, control or eliminate all possible emission sources.

Working with SCAQMD staff, Hixson prepared a Risk Reduction plan (RRP) that included several specific measures that Hixson would take to reduce and/or eliminate the emission of chrome VI emissions from the facility. This RRP was approved by the SCAQMD on July 24, 2015.

Starting in 2015 until 2019, Hixson began an \$8.5 million improvement and construction project that included the installation of a new anodizing line, the reconfiguration and upgrading of all other processing lines, the installation of four new scrubber systems, the relocation and upgrading of our paint booths, the installation of Permanent Total Enclosures (PTEs) for all production areas (including the Waste Treatment area that includes the Patio Area – Risk Reduction Measure Number 7) as well as numerous improvements in fugitive dust elimination policies and practices.

Once completed, the improvements had reduced recorded emissions substantially and Hixson was deemed to be compliant with all emissions standards. These changes that Hixson made during this process were soon incorporated, near verbatim, into the most recent revisions of Rule 1469.



Supporting Flight Excellence

Starting in 2023 while going through the process of reviewing the processing line and other permit applications that had not yet been finalized, it was requested by Hixson that the PTE requirements for the Waste Treatment/Patio Area be eliminated. This was due to the fact that the only tank containing a chromate solution (Tank 111 – CRES Black Oxide) had been reformulated and no longer contained any Potassium Bichromate, therefore eliminating all chromates from any production tanks in this area.

The past installation of the PTE serving the Waste Treatment and Patio Area was a requirement from SCAQMD due to tank 111 having Potassium Bichromate in the solution. Since this tank no longer contains this constituent and Rule 1469 does not mandate a PTE for any of the other tanks in this area, Hixson, respectfully requests that the requirements as indicated in the permit application and as per the RRP be eliminated.

We have attached supporting documentation that contains the email and documents sent to Mr. Rene Loof (SCAQMD Permitting Engineer) on April 13, 2023, and a copy of all documentation provided with said email.

Hixson hopes that you will take the above information into consideration for this request. If you have any questions, please feel free to contact me at your convenience.

Sincerely

Bruce Greene

Hixson Metal Finishing

Environmental/Health & Safety Manager

829 Production Place

Newport Beach, CA 92663

(949) 722-3459

bruce.greene@HMFgroup.com

Bruce Greene

From:

Alberto Jasso <AJasso@aqmd.gov>

Sent:

Thursday, July 18, 2024 5:30 PM

To:

Bruce Greene

Cc:

Victoria Moaveni; Tracy Tang

Subject:

Hixson AB 2588 RRP

Follow Up Flag: Flag Status:

Follow up Flagged

Hello Bruce,

The AB 2588 team is contacting your facility regarding the Risk Reduction Plan (RRP) that was conditionally approved on July 24, 2015. As part of the RRP, a PTE as demonstrated via USEPA Method 204 was required which was ultimately incorporated as a permit condition (Application 577551). This risk reduction measure was triggered by presence of a tank containing hexavalent chromium in the outdoor area where the wastewater treatment area is located. Hixson previously had difficulties demonstrating compliance with Method 204, but they have since reformulated the tank to remove hexavalent chromium.

Since the wastewater PTE requirement is included in the approved RRP, Hixson must submit a formal request to remove this requirement, explaining why this change would not result in an increase in risk for the RRP. Please submit by August 8, 2024.

Feel free to reach out with any questions.



Alberto Jasso
Senior Air Quality Engineer
South Coast Air Quality Management District
(909) 396-3581
ajasso@aqmd.gov

Bruce Greene

From:

Bruce Greene

Sent:

Thursday, April 13, 2023 12:52 PM

To:

Rene Loof

Subject:

Waste Treatment and Camium Line

Attachments:

Cadmium Plate Line_112015_B.xls; black-magic-ss-sds-2232003.pdf; 111 MAMR111-

CRES Black Oxide- Rev B.pdf

Rene,

I think the tank that we are looking at is tank 111 on permit number 577547, the Cadmium Plating Line that is located in the patio area of the waste treatment area.

That tank is the CRES Black Oxide tank that contains a chemical called Black Magic SS. Black Magic SS used to have a small amount of Potassium Bichromate but that chemical has been reformulated and the Potassium Bichromate has been removed (Please see SDS attached).

I do not see any other tanks in that area that would contain any chromates.

Hope this helps.

Thanks

From: Rene Loof <RLoof@aqmd.gov> Sent: Wednesday, April 5, 2023 12:07 PM

To: Bruce Greene <bruce.greene@hmfgroup.com>

Subject: Greetings

Hi Bruce.

The District has brought me back to work on your applications and I just wanted to let you know that I am available. My number is still the same (909)396-2544 with the same email. I'm getting reacquainted with facility so bear with me. Thanks.

Rene Loof

ANAL. REV: B FREO Daily** HMF 011F CHEMICAL UNITS bbg inch OPERATING RANGE TARGET 5.00 2.00 DEPT. NAME: Waste Treatment LOCATION: Waste Treatment ADDITIONS RANGE EFFECTIVITY DATE: 1.0 - 3.04.5 - 5.5 AMOUNT inch UNII Lbs MAKE-UP Approved by: AMT Production 2.00 375 Quality Bal Ep. DATE Solution Height Measurement (R&D) LAB PROCEDURE SOLUTION MATERIAL Deionized Water Black Magic SS ** This bath maintained by adding material to maintain boiling point 28"x 28"x 24" with 2" freeboard SPECIFICATION SOLUTION VARIATIONS 9 Conversion Coating No Data is recorded complies with MB 1660 HIXSON METAL FINISHING SOLUTION CONTROL FORM Tank Information: 00 Black Oxide, CRES TYPE: per spec 1 per spec 1 250 - 260 N/A N/A N/A 2.47 per spec 1 per spec 1 GENERAL DATA ops 4084 (temp 250 - 260) fechnical Data Sheet 4.5 - 5.5 255 - 265 mil c 13924 SPECS Temp Range (° F) Carbon Treat f Specifications: Baume Range Black Magic SS Tank Number Volume (gal) MATERIALS Description pH Range Cemperature



Safety Data Sheet

Better Chemistry, Better Business

BLACK-MAGIC SS

1 IDENTIFICATION

Product Code: 2232003

Recommended use of the chemical and restrictions on use:Metal finishing

Hubbard-Hall Inc.

563 South Leonard Street Waterbury, CT 06708 **Telephone**: 203-756-5521 **Fax number**: 203-756-9017

Emergency Phone Number CHEMTREC: 1 (800) 424-9300 International: 1 (703) 527-3887

2 HAZARDS IDENTIFICATION







Signal Word: DANGER

Hazard Category: Corrosive to Metals Hazard Category 1

Acute Toxicity-Oral Hazard Category 4
Skin Corrosion/Irritation Hazard Category 1A
Eye Damage/Irritation Hazard Category 1
Oxidizing Liquids Hazard Category 3

Hazard Statements: May be corrosive to metals.

Harmful if swallowed.

Causes severe skin burns and eye damage.

May intensify fire, oxidizer.

Prevention: Keep only in original container.

Wear protective gloves, chemical protective clothing, eye protective goggles and face shield for face prot Do not eat, drink or smoke when using this product.

Do not breath dusts or mists.

Wash skin thoroughly after handling.

Keep away from heat.

Keep/Store away from clothing and other combustible material.

Take any precaution to avoid mixing with combustibles.

Response: If inhaled: Remove person to fresh air and keep comfortable for breathing. Call poison center/doctor if yo

If swallowed: Rinse mouth. Do NOT induce vomiting.

If on skin(or hair): Take off immediately all contaminated clothing. Rinse with water/safety shower. Ca Wash contaminated clothing before reuse.

6 ACCIDENTAL RELEASE MEASURES

10014

Personal Precautions, Protective Equipment, & Emergency Proc Prevent spilled product from drains, sewers, waterways and soil.

Methods and Materials for containment & cleaning up:

suitable body protection to prevent contamination of skin, eyes and personal clothing.

If trained in accordance 29 CFR 1910.120, leaks should be stopped. Spills should be contained and cleaned immediately. Persons performing clean up work should wear

adequate personal protective equipment and clothing. Spills and releases should be reported, if required, to the appropriate local, state and federal regulatory agencies.

Wear appropriate chemical protection equipment such as gloves, face-shield, goggles and

7 HANDLING AND STORAGE

Precautions for safe handling: Use caution when combining with water. DO NOT add water to Caustic. ALWAYS add

caustic to water while stirring to minimize heat generation. Do not get in eyes, skin or on clothing. Do not taste or swallow. Do not breath vapor or mist. Use only with adequate ventilation. Wear appropriate personal protective equipment. Transfer and storage systems should be compatible and corrosion resistant. Observe good industrial hygiene

practices.

Conditions for safe storage, inc any incompatibilities:

Keep container tightly closed.

Store in cool dry place.

Store away from incompatible materials. (See section 10).

Do not allow material to freeze.

Store in corrosive resistant container.

8 EXPOSURE CONTROLS / PERSONAL PROTECTION

| Name | Std. | TWA-8hrs | STEL - 15 min. |
|------------------|-------|---|----------------|
| Sodium Hydroxide | ACGIH | 2 mg/m3 | |
| *sodium Nitrate | OSHA | 15 mg/m3 total dust 5mg/m3 respirable dust | |

ACGIH - American Control of Governmental Hygenists OSHA - Occupational Safety and Health Administration

Ventilation: Use local exhaust to keep personal exposures below the OSHA Permissible Exposure Limit (s)

(PEL) or the ACGIH threshold Limit Values (TLV)Time Weight Average (TWA).

Protective Gloves:

Rubber gloves

Eye Protection:

Wear chemical safety goggles with face shield.

Other Protective

Wear chemical resistant apron.

Equipment:

9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance: White to off-white granular mixture

Odor: No odor

Odor Threshold: N/A PH: 12

Melting Point/Freezing Point: approx 900 °F

InItial Boiling Point and Boiling

N/A

Range:

Flash Point:

N/A

Evaporation Rate:

N/A

Flammability (solid, gas):

N/A

Upper/Lower flammability or

N/A

explosive limits:

Vapor Pressure:

N/A

Vapor Density:

N/A

Relative Density:

N/A

Solubility (ies):

Complete in water

Partition Coefficient;

N/A

n-octanol/water:

Auto-ignition Temperature:

N/A

Decomposition Temperature:

N/A

Viscosity:

N/A

10 STABILITY AND REACTIVITY

Reactivity:

Contact with metal may release flammable hydrogen gas.

Chemical Stability:

Stable under normal conditions

Possibility of Hazardous

Hazardous polymerization does not occur.

Reactions:

Conditions to Avoid:

Reacts violently with strong acids. This product may react with oxidizing agents. Do not mix with other chemicals. Corrosive to aluminum, tin, zinc, copper and most alloys in which they are present including brass and bronze. Corrosive to steels at elevated temperatures above 40

°C,

Incompatible Materials:

Hazardous Decomposition

Avoid contact with aluminum, tin, zinc. halogenated solvents, and strong oxidizers and acids. Contact with metal (aluminum, zinc, tin) and sodium tetrahydroborate liberates hydrogen gas.

Products:

11 TOXICOLOGICAL INFORMATION

Oral Administration:

Caustic 50% solution: LD50, Rat-300-500 mg/kg

Dermal administration:

Caustic 50% solution-LD50 Rabbit->2 g/kg

Delayed effects: Immediate effects: Severe irritation or burns to skin, eyes and respiratory system Severe irritation or burns to skin, eyes and respiratory system

Cancer Hazard:

Not listed by IARC, NTP, OSHA, ACGIH

Routes of Exposure

Eyes, Skin, Inhalation, Ingestion

12 ECOLOGICAL INFORMATION

Fish, Lepomis macrochirus,

Caustic-99 mg/L, 48 hrs

Bioaccumulation potential:

Unlikely

Water result:

Disperses in water.

Soil/Sediment Result:

Pronounced solubility and mobility

13 DISPOSAL CONSIDERATION

Dispose of in accordance with local, state and federal regulations.

14 TRANSPORT INFORMATION

UN Number:

3262

UN Proper Shipping Name:

CORROSIVE SOLIDS, BASIC, INORGANIC, N.O.S. (SODIUM HYDROXIDE),

Transport Hazard Class (es):

8

Packing Group:

Ħ

ERG:

154

15 REGULATORY INFORMATION

HMIS: Health: 3 Flammability: 0 Reactivity: 2

Cercla

2000 lb RQ (Caustic 50%)

Sara Hazard

SARA 302 - Extremely Hazardous Substances; None present

Classification

Sara Hazard Classification SARA Hazard Categories: Immediate Hazard:Yes Delayed Hazard:Yes Fire Hazard-No Pressure

Hazard-No Reactivity Hazard-yes

16 OTHER INFORMATION

No RoHS or REACH SVHC are contained in this product.

Disclaimer:

The information is based on our knowledge to date but does not constitute an assurance of product

properties and does not imply a legal contractual relationship.

Date Prepared:

8/8/14

| | | 1 | | | | T | | | | | | | | | Surface | Heating | Max | Incoming | Discharge | Tank | % Time | | Scrubber | Tank pH | Agitation | Agitation | Agitation | |
|-------------|---|--------------------|--|---------------|---------------------------------------|---------------------|-----------|----------------------|---|-------------------|-------|----------------|--------------|-----------------------|---------|----------------------|---------------|---------------------|-----------------------------------|------------|--------------|--------------|-------------|----------------------------|-----------|--------------|-----------|-----------------|
| Tank Number | Tank Hot DI Water | Main Process Rinse | Sub - Process | Quantity 1 | Constituents DI Water | Max Amount 100,00 9 | Measurmen | Not Regulred | New Permit Not Required | Size (W) 21.75 | | Size (D) 30 | | Volume (Gal) 80,03 | | Requirements 12KW | | Water 2 DI Water | Plumbing | Covering | Covered | Scrubber | CFM | (approximate) 5.5 - 8.6 | | (CFM) | (GPM) | Rectifier |
| | Rodine | | Activation | | Muriatic Acid | 81,65 | · | Cad Plate | Cadmlum Plating (F32230) | 23 | | 30 | | 61.83 | | | <u> </u> | | | | | ļ | - | | | 20 | - | |
| " | | 1,100100033 | Activation | 1 | Rodine 213 | 0.18 9 | · | - Cau Figle | Cadmidia Flading (F32250) | 23 | 23 | 30 |] | 61.83 | 3.67 | | Amblen | nt | | | | | | N/A | 1 | | | . |
| | Passivate Type II | | D | | | | · | la lat | | | | | | ļ | | | ļ | | | | | | | | | | | |
| 43 | Passivate type ii | process | Passivation | 1 | Nitric Acid Concentrate | 35.44 9 | | Cad Plate | Cadmium Plating (F32230) | 48 | 24 | 36 | 3 | 258.30 | 5 12.56 | 8KW | 15 | 5 | | | | Chromic | 1300 | N// | PUMP | | 20 | . |
| | } | | ŀ | | Sodium Dichromate | 3,75 9 | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | Sodium Dichromate | 3.94 9 | %/w | • | | | İ | | | ļ | | | | | | | | | | | | | | <i>i</i> |
| | Passivate Type VII | process | Passivate | . 1 | Nitric acid | 43.01 9 | · | | Cadmium Plating (F32230) | 24 | 30 | 30 | . 3 | 84.1 | 5.00 | 8KW | 14 | 0 | | | | | | | PUMP | | 11 | |
| 47B | Cadmium Strip | preprocess | strip | 1 | Ammonium nitrate | 16.88 9 | <u> </u> | Cad Plate | Cadmium Plating (F32230) | 24 | 30 | 28 | 1 1 | 77.9 | 2 5.00 | | Ambien | ıt | | | | | | | PUMP | | 11 | |
| 10 | Nitric Acid 50% | process | Passivate | 1 | Cadmium metal Nitric acid | 3.75 9 85.44 9 | | N | Cadmium Plating (F32230) | | | | ļ | | | | | | | | | ļ | | | | | | |
| | Cadmium Plate | Process | Cad Plate | 1 | Cadmium Oxide | 4,69 9 | | New Cad Plate | Cadmium Plating (F32230) | 24 60 | | | | 52.8 199,4 | | | / 9 Ambier | | | | | Cyanide | 1000 | 12.0 Mi | PUMP | ļ | 11 | a suttagg 4 |
| | | | | - | Sodium Cyanide | 20.63 | | | addinam, inting (, b2130) | 00 | [| 30 |] | 133,4. | 10.00 | Ί | Annei | 11 | | | | Cyanide | 1000 | 12,0 | POMP | | 11 | 15V/200A |
| | | | | | | | · | 4 | | | | | | | İ | | | | | | | | Ì | ١. | | | | , 1 |
| | | | | | Caustic Soda | 3.75 | | _ | | | | | ļ | | | | | | • | | | | | | | | | |
| | | | | | Sodium Carbonate | 9.38 | | | | | | | | | | | | | | | | | | | 1 | | | |
| 54 | Douglas LHE Cadmium | Process | Cad Plate | 1 | Cadmium Oxide | 4.50 | %/w | Cad Plate | Cadmium Plating (F32230) | 60 | 24 | 36 | | 199.4 | 7 10.00 | 4KW | / 9 | 0 | | | | Cyanide | 1000 | 12.0 Mi | PUMP | | 11 | 15V/200A |
| | | | | | Sodium Cyanide | 15.00 | %/w | | | | | | | | | | | | | | | | | | | | | |
| | | | | | Caustic Soda | 3.00 | %/w | | | | | | | | | | | | | | | | } | | | | | |
| | | | | | Sodium Carbonate | 7.50 | %/w | | | | | | | | | | | | | | į | | | | | | | ı l |
| 55 | Manganese Phosphate | Process | phosphate | 1 | Gardebond G 4040 | 23.38 | %/w | Cad Plate | Cadmium Plating (F32230) | 24 | 24 | 30 |) ; | 52.8 | 5 3,14 | 1 8KW | / 20 | 0 | | | | | + | N/s | | | | |
| | | | | | Iron (fl) | 1.13 5 | %/w | \dashv | | | | | | | | 1 | | | | | | 1 | | | | | | ı I |
| 56 | Cadmlum Plate | Process | Cad Plate | 1 | Cadmium Oxide | 4.23.5 | | Cad Plate | Cadmium Plating (F32230) | 60 | 24 | 36 | | 1 199,4 | 7 10.00 | 1 | Ambler | | | | | Cyanide | 1000 | 12,0 Mi | DI IMP | | 44 | 45149904 |
| | | | | - | Sodium Cyanide | 20.53 | · | - | and the state of | " | 24 |] | 1 | 153,4 | 10.00 | 1 | Wilhigh | | | | | Cyanide | 1000 | 12,0 141 | POWE | | 11 | 15V/200A |
| | | İ | | | | | · | | | | | | | | | | | | | | | | | | | 1 | | |
| | | | | | Caustle Soda | 3,75 | | _ | | ł | | | | | | | | | | | | | | | | | | ı İ |
| | | | | | Sodium Carbonate | 9,38 | · | | | | | | | | | | | | | | | | | | | | | i |
| | | | | | Isobrite 541 | 1,47 | %/w | | | | | | | | | | | | | | | | | | | | | . |
| 57 | Cad Chromate - Gold | postprocess | Chromic Conversion | 1 | Iridate 80 | 3,79 | %/w | Cad Plate | Cadmium Plating (F32230) | 48 | 24 | 36 | i : | 3 164.5 | 6. 8.00 | 9 8KW | / 9 | 0 | | | | Chromic | 804 | 1.0 - 1. | PUMP | | 11 | |
| 58 | Cad Chromate - Clear | postprocess | Chromic Conversion | 1 | Macro Brite C9 | 15,00 | %/w | Cad Plate | Cadmium Plating (F32230) | 24 | 24 | 36 | | 82.2 | 8 4.00 | D 8WK | (9 | 0 | | | | Chromic | 40 | 0,4 - 0. | PUMP | | 11 | |
| 79 | Dull Cadmium Plate | Process | Cad Plate | 1 | Cadmium Oxide | 4.69 | %/w | Cad Plate | Cadmium Plating (F32230) | 60 | 24 | 36 | , | 199.4 | 7 10.00 | S 8KW | / 9 | 0 | | 1 | | Cyanide | 1000 | 12,0 Mi | PUMP | | 11 | 15V/200A |
| | | | | | Sodium Cyanide | 20.63 | %/w | | | | | | | | | | | | | | | | | | | | | 1 |
| | | | | | Caustic Soda | 3.75 | %/w | \dashv | | | | | | | | | | | | | | | | | | | | 1 |
| | | | | | Sodium Carbonate | 9.38 | %/w | \dashv | | | | | | | | | | | | | | | | | | 1 | | 1 |
| 82 | Cadmium Plate | Process | Cad Plate | 1 | Cadmium Oxide | 4.69 | | Cad Plate | Cadmium Plating (F32230) | 106 | 36 | 60 | | 4 925.0 | 3 26,50 | 2 45104 | | | | | | 011. | 870 | 1201 | 0.0.40 | | | 1 |
| [| | | | | Sodium Cyanide | 20.63 | | _ | Eddinam Fracing (FSEEO) | 100 | 50 | 00 | Ί . | 923.0 | 20,50 | 16KW | <u>'</u> | 10 | | | | Cyanide | 270 | 12.0 1011 | PUMP | - | 50 | 15V/500A |
| | | ' | | | , , , , , , , , , , , , , , , , , , , | | | _ | | | | | | | | | | - | | | | | | | | ŀ | | 1 |
| | | | | | Caustic Soda | 3.75 | | | | | | | | | | | | | | | Ì | | | | İ | | | 1 1 |
| | | | | | Sodium Carbonate | 9.38 | • | | | | | | | | | | | | | | | | | | ļ | | | ı I |
| | | | | | Isobrite 541 | 1.50 | %/w | | | | | | |] . | | | | | | | | | | | 1 | | | ı I |
| 110 | Descale | cleaner | | 1 | Cee Bee J88A | 37.50 | | Cad Plate | Cadmium Plating (F32230) | 24 | 24 | 28 | : | 3 62.3 | 3 4.00 | 12KW | / 22 | :0 | | | | | | | PUMP | | 11 | |
| 111 | care atk ovid- | - | his should | | Potassium Permanganate | 7.50 | | 0.181 | | | | | | | | | | | | | | | | | | | | |
| | CRES Black Oxide Alkaline Nickel Strip | process | black oxide strip | 1 | Black magic SS Niposit 428 D | 82,50 S | | Cad Plate Nickel | Cadmium Plating (F32230) | 24 | | | | 3 37.4 | | | | | | | | ļ | | | | _ | | |
| 113 | Alkantie telekerserip | preprocess | Strip | * | Niposit 428 L | 15.75 | | HICKEI | | 24 | 36 | 36 | <u>'</u> | 3 123.4 | 2, 6,00 | D 12KW | / 18 | 50 | | | | | | | PUMP | | 11 | 1 |
| 11,6 | Zinc Phosphate | Process | phosphate | 1 | Cryscoat MP | 6.39 | | Cad Plate | Cadmium Plating (F32230) | 24 | 24 | 30 | | 3 67,3 | 2 4.00 | 0 6KW | / 19 | nn | + | + | | - | | 2.4 - 2. | я | | | |
| I | Chromic Rinse | postprocess | Chromic Conversion | 1 | Chromic Acid | 0.75 | | Cad Plate | Cadmium Plating (F32230) | 24 | | | | 3 102.8 | | | | _ | - | | ļ | Chromic | 50 | | O PUMP | | 11 | \vdash |
| | Cadmium Chromate -OD | postprocess | Chromic Conversion | | Kenvert 11 | 10.44 | | Cad Plate | Cadmium Plating (F32230) | 24 | | |] | | | | | | | 1 | ļ | | | | | | 11 | |
| | Steel Black Oxide | process | black oxide | | Oxi Black | 95.00 | | Cad Plate | | | | 36 | <u></u> | 82.2 | | ļ | | 00 | | 1 | | Chromic | 40 | 0.7 - 1. | OAIK | 20 | | |
| | Muriatic Acid | Preprocess | Activation | | Muriatic Acid | 82.25 | | Cad Plate, Tin Plate | Cadmium Plating (F32230) Cadmium Plating (F32230) | 48 | | 30 | <u>'</u> | 3 21.3 | | | | | | ļ | | - | - | N. | A DUBAS | | | |
| | Sodium Dichromate | postprocess | Chromic Conversion | | Sodium Dichromate | 7.50 | | Cad Plate | Cadmium Plating (F32230) | | | ļ |] | 3 134.6 | | | Ambier | | - | 1 | <u> </u> | 1 | 4 | <u> </u> | A PUMP | <u> </u> | 11 | |
| | | | ļ | | | | | | | 24 | | <u> </u> | 1 | 3 64.5 | | | | | | | <u> </u> | Chromic | 350 | 4.0 - 6. | PUMP | | 11 | |
| | Cadmium Strip | preprocess | stríp | 1 | Hydrochloric acid Nitric acid | 48.31 5 76.88 5 | | Cad Plate | Cadmium Plating (F32230) | 21 | | 1 | ļ | 3 74,9 | 9 4.83 | | Ambler | | | | | | | | PUMP | | 11 | |
| Aux 7* | Passivation for Steico | Process | Passivation | 1 | Sodium Dichromate | 2,81 | | New | Cadmium Plating (F32230) | 12 | . 24 | 12 | 1 | 3 | | 4KW | 14 | 10 | ŀ | | | | | | PUMP | | 11 | 1 |
| A 04 | D5-5-5-5-5-1-41 | Dw | D | - | Nitric acid | 30.94 | | New | Cadmium Plating (F32230) | 12 | 24 | 12 | 2 | 3 | - | 4KW | / 14 | 10 | | | | | | | PUMP | - | 11 | <u> </u> |
| | Passivation for Aviation | Process | Passivation | 1 | Sodium Dichromate | 3.75 | | <u></u> | | | | | | | | "" |] - | - | | | | | | | | | | 1 |
| A14 | Acid Rinse | Rinse | | 1 | Tap Water | 100.00 | %/w | Not Regulred | Not Required | 48 | 24 | 30 |) | 3 134.6 | 4 8.00 | g | Ambier | nt Tap Water | | | | | | | AIR | 30 | | |
| A16 | Acld Rinse | Rinse | | 1 | Tap Water | 100.00 | %/w | Not Required | Not Required | 23 | 23 | 30 | | 3 61.8 | 3 3.6 | 7 | Ambies | nt Tap Water | Treatment - Acid Feed to Waste | | - | | | | AIR | 20 | | |
| | | | | | | | | | | | | <u> </u> | ļ | | | | | | Treatment - Acid | | | <u> </u> | | | | | 1 | |
| A18 | Acid Rinse | Rinse | | 1 | Tap Water | 100.00 | %/w | Not Required | Not Required | 22.75 | 36 | 30 |) | 3 95.7 | 2 5.69 | 9 | Ambier | nt Tap Water | Feed to Waste Treatment - Acid | . [| | 1 | | | AIR | 2.0 | | |
| A19 | Acid Rinse | Rinse | | 1 | Tap Water | 100.00 | %/w | Not Regulred | Not Required | 60 | 24 | 30 | : | 3 168.3 | 0 10.00 | 0 | Ambier | nt Tap Water | Feed to Waste | + | | 1 | | | AIR | 30 | | $\vdash \dashv$ |
| | Acid Rinse | Rinse | | - , | Tap Water | 100.00 | 9/ /ses | Not Resulted | Mot Banutus d | | | | ļ | | | | | | Treatment - Acid | 4 | 1 | 1 | | ļ | | | | |
| | Ludin Urilag | white. | | | 12h Marci | 100.00 | 70/W | Not Regulred | Not Required | 33 | 21.75 | 30 | ή : | 3 83,8 | 9 4.98 | 8 | Ambier | nt Tap Water | Feed to Waste Treatment - Acid | | | | | | AIR | 20 | 1 | 1 |
| A21 | Acid Rinse | Rinse | | 1 | Tap Water | 100,00 | %/w | Not Regulred | Not Required | 33 | 21.75 | 30 | : | 3 83,8 | 9 4.98 | 8 | Ambier | nt Tap Water | Feed to Waste | | | | | 1 | AIR | 20 | | |
| Δ22 | Acid Rinse | Rinse | | 1 | Tap Water | 100,00 | %/w | Not Required | Not Required | 24 | 21 | 30 | | | 2 4 2 | ļ | | | Treatment - Acid | 4 | 1 | 1 | | ļ | AID. | | | |
| | | | | | | 100,00 | roj 14 | nos naguned | not negalied | | 24 | | <u>'</u> | 3 67,3 | 2 4.00 | ٦ | Ambier | nt Tap Water | Feed to Waste Treatment - Acid | .[| | | | 1 | AIR | 20 | 1 | |
| A28 | Acid Rinse | Rinse | | 1 | Tap Water | 100,00 | %/w | Not Required | Not Required | 24 | 24 | 30 |) : | 3 67,3 | 2 4.00 | 0 | Ambler | nt Tap Water | | | | | | | AIR | 20 | | |
| | | | | 1 | | | | | 1 | | | | | | | | | | Feed to Waste | . [| 1 | | | | | | | |
| | L | | ٠ | 1 | | | | | | | L | | L | I | _l | 1 | 1 | | Treatment - Acid | · <u>J</u> | 1 | 1 | 1 | | 1 | | L | L |

the state of the state of

Hixson Metal Finishing

and the state of the state of the state

Cadmium Plate Line (F32230) Tank Schedule

| A100 Tap Water Rinse | rinse | | 1 | Tap Water | 100,00 | %/w | Not Required | Not Required | 24 | 36 | 36 | 3 | 123.42 | 6.00 | | Ambient Tap Water | Feed to Waste Treatment - Acid | AIR | 30 | |
|----------------------|-------|-----------|---|-----------|--------|-----|--------------|--------------------------|----|----|----|---|--------|------|---------|-------------------|-----------------------------------|------------------|-----|--|
| A101 Tap Water Rinse | rinse | | 1 | Tap Water | 100,00 | | Not Required | Not Required | 24 | 36 | 36 | 3 | 123.42 | 6,00 | | Ambient Tap Water | Feed to Waste Treatment - Acid | AIR | 30, | |
| · WT3 Cadmium Treat | W/T | Cad Treat | 1 | | | | New | Cadmium Plating (F32230) | 36 | 36 | 30 | 3 | 151.47 | 9,00 | Chilled | N/A | | Mechanical Mixer | | |