# A Guide to the Registration of Chemical Waste Producers

Environmental Protection Department
Hong Kong
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## Preface

The purpose of this guide is to introduce the registration provisions of the Waste Disposal (Chemical Waste)(General) Regulation (the Regulation) and the procedure for identifying chemical waste generation.

This guide is for explanatory purposes only. In case of doubt, the reader is advised to consult the Regulation itself. References to relevant sections of the Regulation are shown in brackets following the headings. Copies of the Regulation are on sale at the Government Publications Centre.

Enquiries concerning the provisions of the Regulation may be made to the Environmental Protection Department at:

**Address**

Environmental Protection Department
28/F, Southorn Centre
130 Hennessy Road, Wanchai, Hong Kong.

**Telephone** **:** 2838 3111

**E-mail** **:** enquiry@epd.gov.hk

Other relevant publications:

- A Guide to the Chemical Waste Control Scheme
- Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes

The above publications are available from the website of Environmental Protection Department.

## Contents

# 1. INTRODUCTION

■ The Waste Disposal (Chemical Waste)(General) Regulation (the Regulation) made under the Waste Disposal Ordinance (Cap. 354) provides for the control of chemical waste in Hong Kong. Under the Regulation, chemical waste producers are required to register with the Director of Environmental Protection. This booklet provides guidance for identifying activities that produce chemical waste and for complying with the registration requirements. Further details of the control scheme are provided in "A Guide to the Chemical Waste Control Scheme".

■ All chemical waste producers are required to apply for registration before engaging in any activity that generates chemical waste. Failure to comply with this requirements is an offence and liable on conviction to a fine of $200,000 and imprisonment of 6 months.

# 2. WHAT IS A "CHEMICAL WASTE PRODUCER"? (Sections 2 & 3)

■ Chemical waste is defined as any substance or thing being scrap material, effluent or an unwanted substance or byproduct arising from the application of or in the course of any substance or chemical specified in Schedule 1 of the Regulation if such substance or chemical occurs in such form, quantity and concentration so as to cause pollution or constitute a danger to health or risk of pollution to the environment.

■ Any person who produces chemical waste or causes it to be produced will be defined as a chemical waste producer and is required to register with the Director of Environmental Protection.

■ The flowchart in Figure 1 will assist you in determining whether you are a chemical waste producer and are therefore subject to the registration requirement. The procedure generally involves the following steps:

(i) Identify the nature and characteristics of the waste by examining the process/activity which generates the waste, by consulting product information (e.g. safety data sheets) of the chemicals being used and other relevant information. If necessary, arrange laboratory tests to determine the composition of the waste.

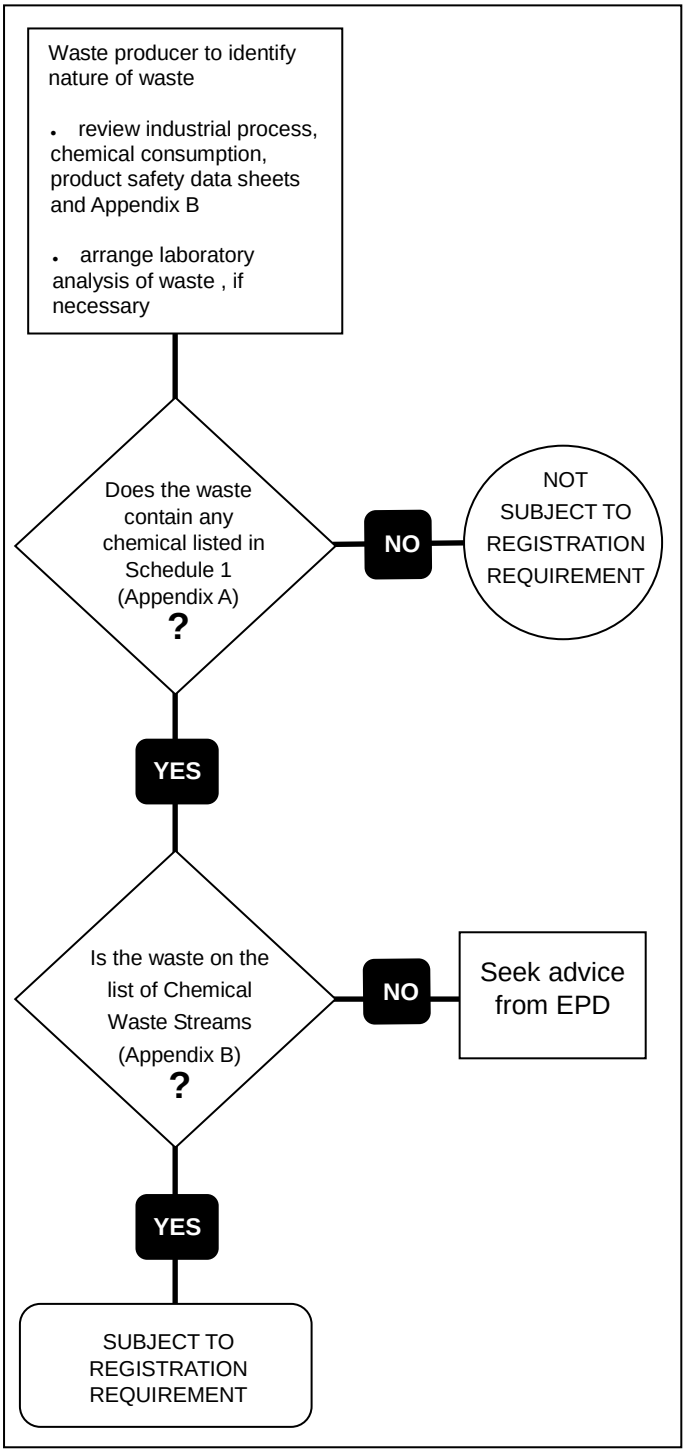


**Figure 1 Procedure for identifying chemical waste generation**

(ii) Check the information against the list of chemicals and substances contained in Schedule 1 to the Regulation, reproduced at Appendix A. If the waste does not contain any substance named in the Schedule, it is not a chemical waste.

(iii) If the waste contains one or more chemical or substance in the Schedule, you need to check whether the waste is listed in Appendix B (Parts I to III). If yes, the waste is a chemical waste and you should proceed with the registration process. If the waste is generated from a process or activity which is not included in Appendix B (e.g. a new process/technology), you should contact Environmental Protection Department (EPD) for guidance.

(iv) If you are unclear or having difficulty in classifying your waste, you should contact EPD for guidance.

■ In addition to the manufacturing and service industries, the following establishments/activities may also produce chemical waste:-

- Trading firms which may produce off-specification, expired or damaged products containing chemicals listed in the Schedule;
- Construction, building or renovation contractors using chemicals;
- Building demolition work producing asbestos waste;
- Private testing laboratories;

  Hospitals with medical/research laboratories;
- Educational establishments such as schools, colleges, tertiary institutions with science laboratories;
- Government departments.

## 3. THE REGISTRATION PROCESS (Sections 6 & 7)

■ The registration process involves two simple steps:-

**Step 1**: complete a registration form and return it to EPD.
**Step 2**: pay the registration fee.

■ The registration forms can be downloaded online at http://www.epd.gov.hk/epd/sites/default/files/epd/tc_chi/application_for_licences/applic_froms/files/epd129.pdf.

■ The following documents are required for registration:
(i) Completed application form;
(ii) Copy of the identity card/certificate of incorporation and business registration certificate of the applicant; and
(iii) Any other supporting document, e.g. authorization letter.

**STEP 1 - Completing the registration form**

■ Each chemical waste producer requires one application for registration of each location or premises of the establishment where chemical waste is produced.

■ Please complete the form clearly by typing or writing in black or blue ink. If there is no sufficient space in any column to fill in all the information, you may use separate sheet(s) of paper, which are numbered and duly signed by the applicants.

■ The information to be provided is set out below (see the sample registration form at Appendix C):-

**Items 1-6: Particulars of waste producer**

■ Enter full particulars of the waste producer. The applicant may be an individual, a company, a partnership or an organisation. For a company, partnership or organisation, its full name should be entered

**Items 7-8: Particulars of waste generating establishment**

■ Enter the name of the establishment in full and the business registration certificate number, if applicable.

**Item 9: Nature of business**

■ Enter the nature of business of the establishment(s). For an industrial establishment, the major product type(s) and the nature of the process(es) involved should also be specified. For example, manufacture of metal toys - electroplating. Refer to Appendix B for description of industrial/trade sectors and processes.

**Item 10: Waste types**

■ Set out the major types of chemical waste generated or expected to be generated at the establishment(s). For example, spent acid, solvent waste, waste lubrication oil. The description should cover chemical wastes generated on both a regular or occasional basis.

**Items 11-15: Address and contact person**

■ Enter the address(es) of the establishment(s) and full particulars of the contact person(s) who would be responsible for day-to-day supervision.

**Items 16-20: Declaration**

■ If the waste producer is an individual, the declaration must be filled by the individual who applies for registration. In the case of a company or an organisation, this part must be filled by a person authorized by the company or the organisation, as the case may be. If the waste producer is a partnership, it should be filled by one of the partners. Documentary proof of authorization is required.

■ The completed form should be returned to EPD at the address shown in Appendix 3 of the following website: http://www.epd.gov.hk/epd/sites/default/files/epd/tc_chi/application_for_licences/applic_froms/files/epd129.pdf.

**STEP 2 - Payment of registration fee**

■ Advance payment of the $265 application fee can be made in parallel with submission of the registration form, preferably by cheque or EPS. However, for application submitted through mail, only cheque will be accepted. Cheque of payment should be crossed and made payable to "The Government of Hong Kong Special Administrative Region". Upon receipt of the registration form, EPD will issue an acknowledgement note by post. You may be requested to provide more information, where necessary. Once the application is complete, a Demand Note will be issued to you (if advance payment of the registration fee is not made) requesting payment of the registration fee within a specific period, normally two weeks. Payment should be made according to the instructions as stipulated on the Demand Note.

If the payment is not received within the specified period, your application will be cancelled and a new application will have to be submitted.

■ After payment, EPD will issue a written confirmation and assign a Waste Producer Number to each successful applicant. This number is a unique reference for each waste producer and should be quoted in all future correspondence with EPD and also on other notices/forms (e.g. trip-tickets). Where an application is found not to be related to chemical waste, EPD will also issue a written confirmation to that effect and no registration is required.

## 4. OTHER REQUIREMENTS (Section 7)

■ Registration is an one-off requirement and not subject to renewal. However, each registered waste producer has the obligation to inform EPD as soon as practicable of any change in the particulars of the registration, for example, changes in contact person, telephone number and correspondence address. Such notifications should be made in writing within two weeks of the change. No payment is required. Failure to notify EPD is an offence under the Regulation and is liable to a fine of $10,000.

■ Registration is not transferable and will only be valid in respect of the person and the waste producing premises being registered. If either the name of the registered waste producer, or the address of the waste producing premises is changed, the registered waste producer is required to inform EPD so that the original registration may be cancelled. No fee is required for the cancellation of the original registration. However, a new application with a current registration fee is required for the registration of the new name or the new waste producing premises.

■ Upon registration, EPD may issue a notice requesting you to furnish more information on the wastes you produce. According to section 23B of the Waste Disposal Ordinance, you will be required to furnish the information within the period specified in the notice. Any person who fails to comply with the requirement or provides inaccurate/false information or omits information commits an offence and is liable to a fine of $100,000.

■ Applicant for registration as a chemical waste producer at a new location or premises is reminded to inform EPD of any previous Waste Producer Registration that you no longer wish to retain by completing Appendix 1 of the following link: http://www.epd.gov.hk/epd/sites/default/files/epd/tc_chi/application_for_licences/applic_froms/files/epd129.pdf.

# SCHEDULE OF SUBSTANCES AND CHEMICALS

## Part A

**Code**

Any substance to which the Antibiotics Ordinance (Cap. 137) applies……30
Asbestos……09
Dangerous drugs (as defined in the Dangerous Drugs Ordinance (Cap. 134))……10
Dangerous goods, category 2, NES… ….02
Dangerous goods, category 6, NES… ….04
Dangerous goods, category 9, NES… ….14
(As defined in the Dangerous Goods Ordinance (Cap.295))
Dibenzofurans…… …19
Dioxins……19
Pesticides (as defined in the Register referred to in Section 4(b) of the Pesticides Ordinance (Cap. 133))……06
Poisons (Part I) (as defined in the Pharmacy and Poisons Ordinance (Cap. 138))……20
Polychlorinated biphenyls……29

## Part B

Antimony and its compounds……66
Arsenic compounds……66
Barium compounds……66
Beryllium and its compounds……66
Boron compounds……66
Cadmium and its compounds……66
Chromium bearing solid tannery waste……56
Chromium and its compounds, NES……66
Cobalt and its compounds……66
Copper compounds/copper etchant……66/76
Cyanides……96
Dangerous goods, category 3, NES…. ……38
Dangerous goods, category 4, NES…. ……36
Dangerous goods, category 5, NES…. ……33
Dangerous goods, category 7, NES…. ……35
Dangerous goods, category 8, NES…. ……34
Dangerous goods, category 10, NES.. ……39
(As defined in the Dangerous Goods Ordinance (Cap.295))
Halogenated organic solvents and compounds……49
Lead and its compounds……66
Manganese and its compounds……66
Mercury and its compounds……66
Mineral oils employed for engine lubrication……73
Mineral oils, NES……63
Nickel and its compounds……66
Non-halogenated organic solvents and compounds……43
Organo lead compounds……86
Organo mercury compounds……86
Organo tin compounds……86
Paints……53
Pesticides (as defined in the Register referred to in Section 4(a) of the Pesticides Ordinance (Cap. 133))……46
Pharmaceutical products and medicines, NES……40
Phosphorus compounds excluding phosphates……68
Selenium compounds……66
Silver compounds……66
Sulphides……98
Thallium and its compounds……66
Tin compounds……66
Vanadium compounds……66
Zinc compounds……66

## Acids, alkalis and corrosive compounds

Acetic acid above 10% acetic acid by weight……48
Acids or acidic solutions, NES with acidity equivalent to above 5% nitric acid by weight……48
Ammonia solution above 10% ammonia by weight……58
Bases or alkaline solutions, NES, with alkalinity equivalent to above 1% sodium hydroxide by weight……58
Chromic acid above 1% chromic acid by weight……78
Fluoboric acid above 5% fluoboric acid by weight……48
Formic acid above 10% formic acid by weight……48
Hydrochloric acid above 5% hydrochloric acid by weight……48
Hydrofluoric acid above 0.1% hydrofluoric acid by weight……48
Hydrogen peroxide solution above 8% hydrogen peroxide by weight……55
Nitric acid above 5% nitric acid by weight……48
Perchloric acid above 5% perchloric acid by weight……48
Phosphoric acid above 5% phosphoric acid by weight……48
Potassium hydroxide solution above 1% potassium hydroxide by weight……58
Potassium hypochlorite solution above 5% active chlorine……88
Sodum hydroxide solution above 1% sodium hydroxide by weight……58
Sodium hypochlorite solution above 5% active chlorine……88
Sulphuric acid above 5% sulphuric acid by weight……48

*NES = Not elsewhere specified*

# CHEMICAL WASTE STREAMS FROM GENERAL PROCESSES / ACTIVITES

| GENERAL PROCESS | PROC CODE | DESCRIPTION | TYPICAL PROCESS CHEMICAL | WASTE STREAM | WASTE CODE |
|---|---|---|---|---|---|
| **CHEMICAL TESTING** | | | | | |
| Chemical testing | T03 | Analysis or testing to ensure quality | Acid<br>Alkali<br>Organic solvent<br><br>Heavy metal compounds<br>Toxic compounds | Spent acid<br>Spent alkali<br>Spent halogenated solvent<br>Spent non-halogenated solvent<br>Spent solution containing heavy metals<br>Waste containing chemicals under Schedule 1 | T03 L48<br>T03 L58<br>T03 L49<br>T03 L43<br>T03 L66<br>T03 * |
| **MAINTENANCE** | | | | | |
| Filter replacement | F03 | Replacement of spent filter cartridge | | Spent filter containing heavy metals | F03 S66 |
| Maintenance, battery | M31 | Maintenance of batteries | Sulphuric acid<br>Potassium hydroxide<br>Lead-acid battery<br>Battery from electric vehicle | Spent acidic electrolyte<br>Spent alkaline electrolyte<br>Scrap battery cell containing heavy metals | M31 L48<br>M31 L58<br>M31 S66 |
| Maintenance, brake/clutch | M32 | Maintenance of (vehicles) brake/clutch linings | | Asbestos waste | M32 S09 |
| Maintenance, insulation/diaphragm | M33 | Maintenance of equipment/ structure containing asbestos (e.g. asbestos diaphragm, heat insulators, etc.) | | Asbestos waste | M33 S09 |
| Maintenance, n.e.s. | M40 | Other maintenance activities producing chemical wastes | | Waste containing chemicals under Schedule 1 | M40 * |
| Oil retrofilling (renewal & drainage) | O01 | Oil replacement from processing machines<br>Oil retrofilling from transformers and cooling units | Lubricating oil<br>Hydraulic oil<br>Cooling oil<br>Polychlorinated biphenyls (PCBs) dielectric fluid | Spent lubricating oil<br>Spent mineral oil<br>Spent mineral oil<br>Spent polychlorinated biphenyls dielectric fluid | O01 L73<br>O01 L63<br>O01 L63<br>O01 L29 |
| Mechanical machining | M03 | General mechanical machining | Cutting oil/Cutting fluid | Spent mineral oil | M03 L63 |
| Stripping, mechanical/manual | S32 | Mechanical stripping of equipment coatings | | Residue containing heavy metals | S32 M66 |
| Stripping, metal | S33 | Chemical stripping of metallic layer | Acid<br>Cyanide | Spent acidic solution<br>Spent solution containing cyanide | S33 L48<br>S33 L96 |
| Stripping, n.e.s. | S40 | Other stripping process producing chemical wastes | | Waste containing chemicals under Schedule 1 | S40 * |
| Cleaning | C06 | Equipment cleaning | Acid<br>Alkali<br>Organic solvent | Spent acidic solution<br>Spent alkaline solution<br>Spent halogenated solvent<br>Spent non-halogenated solvent | C06 L48<br>C06 L58<br>C06 L49<br>C06 L43 |
| **DAMAGED, EXPIRED, REJECTED, SCRAP & UNWANTED CHEMICALS OR PRODUCTS** | | | | | |
| DAMAGED, EXPIRED, REJECTED, SCRAP & UNWANTED CHEMICALS OR PRODUCTS | Z00 | | | Waste containing chemicals under Schedule 1 | Z00 * |

** Refer to remarks on page B-20*
*(n.e.s.= not elsewhere specified)*

# CHEMICAL WASTE STREAMS OF SPECIFIC INDUSTRIAL / TRADE SECTORS

| SECTOR CODE | INDUSTRY TYPE | PROCESS | PROC CODE | TYPICAL PROCESS CHEMICAL | WASTE STREAM | WASTE CODE |
|---|---|---|---|---|---|---|
| **311-3** | **FOOD MANUFACTURING & BEVERAGE INDUSTRIES** | | | | | |
| 3111 | Slaughtering, preparing and preserving meat | Chemical testing | T03 | Acid<br>Alkali | Spent acid<br>Spent alkali | T03 L48<br>T03 L58 |
| 3112 | Dairy products | | | Organic solvent | Spent halogenated solvent | T03 L49 |
| 3113 | Canning, preserving of fruits and vegetables | | | | Spent non-halogenated solvent | T03 L43 |
| 3114 | Canning, preserving and processing of fish and crustaceans | Processing/Storage tank cleaning | T01 | Acid<br>Alkali<br>Organic solvent | Spent acid<br>Spent alkali<br>Spent non-halogenated solvent | T01 L48<br>T01 L58<br>T01 L43 |
| 3115 | Vegetable and imitation animal oils and fats | Cleaning of containers | C06 | Sodium hydroxide | Spent alkali | C06 L58 |
| 3116 | Grain mill products | | | | | |
| 3117 | Bakery products | Process in common with printing industry (342) | | | (Waste streams typical to printing industry) | |
| 3118 | Vermicelli, noodles and similar farinaceous products | | | | | |
| 3121 | Sugar factories and refineries | | | | | |
| 3122 | Cocoa, chocolate and sugar confectionery | | | | | |
| 3123 | Prepared animal feeds | | | | | |
| 3129 | Food products, n.e.c. | | | | | |
| 3131 | Distilling, rectifying and blending spirits | | | | | |
| 3132 | Breweries and manufacture of malt liquors and malt | | | | | |
| **323** | **LEATHER AND LEATHER PRODUCTS, EXCEPT FOOTWEAR AND WEARING APPAREL** | | | | | |
| 3231 | Tanneries and Leather Finishing | Dry cleaning | D05 | Organic solvent | Spent halogenated solvent | D05 L49 |
| 3232 | Products of leather and leather substitutes, except footwear and wearing apparel | Solvent cleaning | C06 | Organic solvent | Sludge containing halogenated solvent<br>Spent halog | D05 M49<br>C06 L49 |
| 3233 | Handbags (excl. rattan handbag, straw handbag, plastic shopping bags) | | | | Spent non-halogenated solvent | C06 L43 |
| | | Liming | L03 | Calcium hydroxide, sodium sulphide | Spent alkaline slurry | L03 M58 |
| | | Acid pickling | A04 | Sulphuric acid | Spent acid | A04 L48 |
| | | Chrome tanning | T02 | Chromium compound, | Spent solution containing chromium | T02 L66 |
| | | | | bicarbonate | Sludge containing chromium | T02 M66 |
| | | Retanning | R03 | Chromium compound, | Spent solution containing chromium | R03 L66 |
| | | | | bicarbonate | Sludge containing chromium | R03 M66 |
| | | Lacquer coating | C32 | Thinner, lacquer | Surplus lacquer | C32 M53 |
| | | Paint spraying | P01 | Paint, organic solvent | Surplus paint | P01 M53 |
| | | Shaving and cutting | S07 | | Chromium containing tannery offcuts | S07 S56 |
| **324** | **FOOTWEAR, EXCEPT RUBBER, PLASTIC AND WOODEN FOOTWEAR** | | | | | |
| 3240 | Footwear, except rubber, plastic and wooden footwear | Adhesive application | A06 | Organic solvent, adhesive | Surplus flammable adhesive | A06 M33 |

*(n.e.c.= not elsewhere classified)*

| SECTOR CODE | INDUSTRY TYPE | PROCESS | PROC CODE | TYPICAL PROCESS CHEMICAL | WASTE STREAM | WASTE CODE |
|---|---|---|---|---|---|---|
| **328** | **TEXTILES** | | | | | |
| 3281 | Bleaching and dyeing | Chemical testing | T03 | Acid | Spent acid | T03 L48 |
| 3282 | Textile stencilling and printing | | | Alkali | Spent alkali | T03 L58 |
| 3283 | Textile finishing, n.e.c. | | | Organic solvent | Spent halogenated solvent | T03 L49 |
| | | | | | Spent non-halogenated solvent | T03 L43 |
| | | Scouring/Kiering | S01 | Sodium hydroxide | Spent alkali | S01 L58 |
| | | | | Organic solvent | Spent halogenated solvent | S01 L49 |
| | | | | | Spent non-halogenated solvent | S01 L43 |
| | | Solvent cleaning | C06 | Organic solvent | Spent halogenated solvent | C06 L49 |
| | | | | | Spent non-halogenated solvent | C06 L43 |
| | | Mercerization | M04 | Sodium hydroxide | Spent alkali | M04 L58 |
| | | Acid carbonizing | A02 | Sulphuric acid | Spent acid | A02 L48 |
| | | Process in common with printing industry (342) | | | (Waste streams typical to printing industry) | |
| **341** | **PAPER AND PAPER PRODUCTS** | | | | | |
| 3412 | Containers and boxes of paper and paperboard | Chemical testing | T03 | Acid | Spent acid | T03 L48 |
| | | | | Alkali | Spent alkali | T03 L58 |
| 3419 | Articles of pulp, paper and paperboard n.e.c. | | | Organic solvent | Spent halogenated solvent | T03 L49 |
| | | | | | Spent non-halogenated solvent | T03 L43 |
| | | Surface coating | C32 | Mineral pigments, binder, defoaming agent | Spent coating solution containing heavy metals | C32 L66 |
| | | Process in common with printing industry (342) | | | (Waste streams typical to printing industry) | |
| **342** | **PRINTING, PUBLISHING AND ALLIED INDUSTRIES** | | | | | |
| 3421 | Newspaper printing | Film developing | P31 | Developer, hydroxide | Spent alkaline developer | P31 L58 |
| 3422 | Job printing | | | | | |
| 3429 | Printing, publishing and allied industries, n.e.c | Film fixing | P32 | Metabisulphite, acetic acid | Spent acidic solution containing silver | P32 L66 |
| | | Photographic reduction (bleaching) | P35 | Potassium ferricyanide, thiosulphate | Spent solution containing silver | P35 L66 |
| | | Photographic intensification (physical deposition) | P33 | Developer, mercury compound | Spent solution containing mercury | P33 L66 |
| | | Photographic intensification (oxidation) | P34 | Developer/Ammonia, mercuric chloride | Spent solution containing mercury | P34 L66 |
| | | Swirl coating of resist (photo-resist, etch-resist, etc) | C34 | Dichromated colloids | Surplus chemicals containing chromium | C34 L66 |
| | | | | Organic solvent, binder | Surplus materials with solvent | C34 L33 |
| | | Pattern developing of etch resist | P03 | Developer | Spent alkaline solution | P03 L58 |
| | | Chemical hardening of etch resist | C04 | Chromium compounds | Spent solution containing chromium | C04 L66 |
| | | Etching of copper plate | E31 | Acid/Ferric chloride | Spent copper etchant | E31 L76 |
| | | Etching of metal plate | E34 | Acid | Spent etchant | E34 L66 |
| | | Offset printing plate developing | P03 | Developer | Spent developer | P03 L58 |

*(n.e.c.= not elsewhere classified)*

| SECTOR CODE | INDUSTRY TYPE | PROCESS | PROC CODE | TYPICAL PROCESS CHEMICAL | WASTE STREAM | WASTE CODE | |
|---|---|---|---|---|---|---|---|
| | | Flexographic plate etching | E36 | Organic solvent | Spent halogenated solvent | E36 | L49 |
| | | | | | Spent non-halogenated solvent | E36 | L43 |
| | | Etch-resist removal | S31 | Alkali | Spent alkaline solution | S31 | L58 |
| | | Chromium plating | P42 | Acid, chromic acid | Spent chromic acid solution | P42 | L78 |
| | | Cleaning of printing plates, printing rollers, tools etc | C06 | Gasoline, kerosene | Spent flammable liquids | C06 | L33 |
| | | | | Organic solvent | Spent halogenated solvent | C06 | L49 |
| | | | | | Spent non-halogenated solvent | C06 | L43 |
| | | Gravure printing | P71 | Organic solvent, ink | Surplus flammable ink slurry | #P_ | M33 |
| | | Letterpress printing | P72 | Fountain solution | Spent fountain solution from offset printing | #P_ | L33 |
| | | Rotary printing | P74 | | | | |
| | | Silk screen printing | P75 | | | | |
| | | Othe printing methods | P80 | | # P_ refers to the corresponding process code on the left column | | |
| **351-2** | **CHEMICALS AND CHEMICAL PRODUCTS** | | | | | | |
| 3511 | Basic industrial chemicals except fertilizers | Compouding of industrial Chemicals (e.g. dyes, pigments, pesticides, plating chemicals, paints, varnishes, etc.) | M05 | Acid, Alkali, Organic solvent, | Mixing residue containing acid | M05 | L48 |
| | | | | | Mixing residue containing alkali | M05 | L58 |
| 3512 | Fertilizers and pesticides | | | | Mixing residue containing halogenated solvent | M05 | L49 |
| 3513 | Synthetic resins, plastic materials and synthetic fibres except glass | | | | Mixing residue containing non-halogenated solvent | M05 | L43 |
| 3521 | Paints, varishes and lacquers | | | | | | |
| 3522 | Drugs and medicines | | | Active ingredients | Mixing residue containing pestcides defined in Section 4(b) of Cap.133 | M05 | L06 |
| 3523 | Soap and cleaning preparations, perfumes, cosmetics and other toilet preparations | | | | Mixing residue containing pestcides defined in Section 4(a) of Cap.133 | M05 | L46 |
| 3524 | Candles | | | | Mixing residue containing heavy metals | M05 | L66 |
| 3529 | Chemical products, n.e.c. | | | | Mixing residue containing cyanide | M05 | L96 |
| | | Cleaning of scrap plastics | C06 | Sodium hydroxide | Spent alkali | C06 | L58 |
| | | Polymerisation of plastic monomer | P07 | Monomer, organic solvent, catalyst | Unreacted monomer/ intermediate | P07 | L33 |
| | | | | | Spent halogenated solvent | P07 | L49 |
| | | | | | Spent non-halogenated solvent | P07 | L43 |
| | | | | | Tarry material | P07 | M43 |
| | | | | | Spent catalyst containing heavy metals | P07 | S66 |
| | | Screening of milled pigment (paint preparations) | S02 | | Screened residue containing heavy metals | S02 | S66 |
| | | Chemical synthesis (alkylation, esterification, cyclisation, sulphonation, etc) | C05 | Organic and inorganic Chemicals (Organic solvents, toxic and corrosive materials, pharmaceutical ingredients, etc.) | Reactor residue containing chemicals under Schedule 1 | C05 | * |
| | | Solvent extraction | S16 | Organic solvent | Spent halogenated solvent | S16 | L49 |
| | | | | | Spent non-halogenated solvent | S16 | L43 |
| | | Distillation | D04 | | Distillation residue containing chemicals under Schedule 1 | D04 | * |
| | | Filling/Packaging of pharmaceutical products | F02 | Pharmaceutical ingredients | Contaminated spillages | F02 | L40 |

** Refer to remarks on page B-20*
*(n.e.c.= not elsewhere classified)*

| SECTOR CODE | INDUSTRY TYPE | PROCESS | PROC CODE | TYPICAL PROCESS CHEMICAL | WASTE STREAM | WASTE CODE | |
|---|---|---|---|---|---|---|---|
| | | Preparation of toilet and cleaning products (including cosmetics & perfumes) | M05 | Acid | Mixing residue containing acid | M05 | L48 |
| | | | | Alkali | Mixing residue containing alkali | M05 | L58 |
| | | | | Hypochlorite | Mixing residue containing hypochlorite | M05 | L88 |
| | | | | Organic solvent | Mixing residue containing non-halogenated solvent | M05 | L43 |
| | | Gas production | G02 | Calcium carbide, catalyst | Spent catalyst containing heavy metals | G02 | S66 |
| | | Purification of produced gas | P09 | | Acidic residue | P09 | S48 |
| | | | | | Unreacted oxidising agent | P09 | S35 |
| | | Contact process | O02 | Sulphur, catalyst | Spent catalyst containing heavy metals | O02 | S66 |
| | | Tank/reactor/boiler cleaning | T01 | Acid | Spent acid | T01 | L48 |
| | | | | Alkali | Spent alkali | T01 | L58 |
| | | | | Organic solvent | Spent halogenated solvent | T01 | L49 |
| | | | | | Spent non-halogenated solvent | T01 | L43 |
| | | Plant maintenance of insulations and electrolytic diaphragm | M33 | | Asbestos waste | M33 | S09 |
| | | Chemical testing | T03 | Acid | Spent acid | T03 | L48 |
| | | | | Alkali | Spent alkali | T03 | L58 |
| | | | | Organic solvent | Spent halogenated solvent | T03 | L49 |
| | | | | | Spent non-halogenated solvent | T03 | L43 |
| | | | | Heavy metal compounds | Spent solution containing heavy metals | T03 | L66 |
| | | | | Toxic compounds | Waste containing chemicals under Schedule 1 | T03 | * |
| **354** | **PRODUCTS OF PETROLEUM AND COAL** | | | | | | |
| 3540 | Miscellaneous products of petroleum and coal | Tank cleaning | T01 | Organic solvent | Spent halogenated solvent | T01 | L49 |
| | | | | | Spent non-halogenated solvent | T01 | L43 |
| | | Chemical testing | T03 | Organic solvent | Spent halogenated solvent | T03 | L49 |
| | | | | | Spent non-halogenated solvent | T03 | L43 |
| | | Cleaning of petrol interceptor | C06 | Mineral oil | Spent mineral oil | C06 | L63 |
| **355** | **RUBBER PRODUCTS** | | | | | | |
| 3551 | Tyre retreading and manufacture of rubber tube | Compounding | M05 | Mineral pigment, additives | Mixing residues containing heavy metals | M05 | L66 |
| 3552 | Rubber footwear | Antitack coating | C32 | Lead stearate | Spent antitack agent | C32 | L66 |
| 3553 | Rubber toys | | | | | | |
| 3559 | Rubber products, n.e.c. | Solvent cleaning | C06 | Organic solvent | Spent halogenated solvent | C06 | L49 |
| | | | | | Spent non-halogenated solvent | C06 | L43 |
| | | Process in common with mould making (3871) | | | (Waste streams typical to mould making) | | |
| **356** | **PLASTIC PRODUCTS** | | | | | | |
| 3561 | Plastic flowers and foliage | Fabric application | F01 | Organic solvent, binder | Spent halogenated solvent | F01 | L49 |
| 3562 | Plastic toys | (e.g. fibre glass coating) | | | Spent non-halogenated solvent | F01 | L43 |
| 3569 | Plastic products, n.e.c. | | | | | | |
| | | Paint spraying | P01 | Organic solvent, paint | Surplus paint | P01 | M53 |
| | | Paint stripping | S34 | Organic solvent | Spent halogenated solvent | S34 | L49 |
| | | | | | Spent non-halogenated solvent | S34 | L43 |

** Refer to remarks on page B-20*
*(n.e.c.= not elsewhere classified)*

| SECTOR CODE | INDUSTRY TYPE | PROCESS | PROC CODE | TYPICAL PROCESS CHEMICAL | WASTE STREAM | WASTE CODE |
|---|---|---|---|---|---|---|
| | | Solvent cleaning | C06 | Organic solvent | Spent halogenated solvent<br>Spent non-halogenated solvent | C06 L49<br>C06 L43 |
| | | Processes in common with printing industry (342) and mould making (3871) | | | (Waste streams typical to printing industry and mould making) | |
| **362** | **NON-METALLIC MINERAL PRODUCTS, EXCEPT PRODUCTS OF PETROLEUM AND COAL** | | | | | |
| 3620 | Glass and glass products (except spectacles, optical lenses) | Polishing | P06 | Polishing oil/Coolant | Spent mineral oil | P06 L63 |
| | | Glass etching | E33 | Glass etchant | Spent glass etchant | E33 L48 |
| | | Resist stripping | S31 | Organic solvent | Spent halogenated solvent<br>Spent non-halogenated solvent | S31 L49<br>S31 L43 |
| | | Cleaning | C06 | Alkaline cleaner<br>Organic solvent | Spent alkaline solution<br>Spent halogenated solvent<br>Spent non-halogenated solvent | C06 L58<br>C06 L49<br>C06 L43 |
| | | Sensitizing | S06 | Stannous chloride | Spent solution containing heavy metals | S06 L66 |
| | | Metallizing (silver coating) | C03 | Silver nitrate, alkali, formalin | Spent solution containing heavy metals | C03 L66 |
| | | Metallizing (copper coating) | C03 | Copper sulphate, reducing agent | Spent solution containing heavy metals | C03 L66 |
| | | Protective layer coating | C40 | Coating paint, organic solvent | Surplus paint | C40 M53 |
| **371-2** | **BASIC METAL INDUSTRIES** | | | | | |
| 3710 | Iron and steel basic industries | Smelting and casting | C60 | Alloying elements, flux | Casting slag containing heavy metals | C60 S66 |
| | | Metal rolling | R05 | Rolling oil/Coolant | Spent mineral oil<br>Bottom sludge containing mineral oil | R05 L63<br>R05 M63 |
| | | Alkaline degreasing | D33 | Sodium hydroxide | Spent alkali<br>Bottom sludge containing mineral oil | D33 L58<br>D33 M63 |
| | | Acid pickling | A04 | Acid | Spent acid<br>Bottom sludge with metallic oxides | A04 L48<br>A04 M66 |
| | | Sensitizing | S06 | Zinc chloride, ammonium chloride | Spent solution containing zinc | S06 L66 |
| 3721 | Non-ferrous metal basic industries, copper | Smelting and casting | C60 | Alloying elements, flux | Casting slag containing heavy metals | C60 S66 |
| | | Metal rolling | R05 | Rolling oil/Coolant | Spent mineral oil<br>Bottom sludge containing mineral oil | R05 L63<br>R05 M63 |
| | | Alkaline degreasing | D33 | Alkaline solution | Spent alkaline solution | D33 L58 |
| | | Desmutting | D02 | Acid, dichromate | Spent chromic acid solution | D02 L78 |
| | | Acid pickling | A04 | Sulphuric acid | Spent acid | A04 L48 |
| | | Bright dipping | B02 | Hydrochloric acid | Spent acid | B02 L48 |

*(n.e.c.= not elsewhere classified)*

| SECTOR CODE | INDUSTRY TYPE | PROCESS | PROC CODE | TYPICAL PROCESS CHEMICAL | WASTE STREAM | WASTE CODE |
|---|---|---|---|---|---|---|
| 3722 | Non-ferrous metal basic industries, aluminium | Smelting and casting | C60 | Alloying elements, flux | Casting slag containing heavy metals | C60 S66 |
| | | Alkaline degreasing | D33 | Alkali | Spent alkaline solution | D33 L58 |
| | | Solvent degreasing | D33 | Organic solvent | Spent halogenated solvent<br>Spent non-halogenated solvent | D33 L49<br>D33 L43 |
| | | Desmutting | D02 | Acid, dichromate | Spent chromic acid solution | D02 L78 |
| | | Anodizing | A08 | Sulphuric acid<br>Chromic acid mixture | Spent acid<br>Spent chromic acid solution | A08 L48<br>A08 L78 |
| | | Other process in common with electroplating industry (3818) | | | (Waste streams typical to electroplating industry) | |
| 3723 | Non-ferrous metal basic industries, n.e.c. | Smelting and casting | C60 | Alloying elements, flux | Casting slag containing heavy metals | C60 S66 |
| | | Metal rolling | R05 | Rolling oil/Coolant | Spent mineral oil<br>Bottom sludge containing mineral oil | R05 L63<br>R05 M63 |
| | | Precipitation of precious metals | P08 | Sodium hydroxide, zinc powder<br>Ferrous salt | Spent alkaline filtrate containing heavy metals<br>Spent acidic filtrate | P08 L66<br>P08 L48 |
| | | Electrolytic extraction of precious metals | E02 | | Residual acidic solution<br>Residual alkaline solution | E02 L48<br>E02 L58 |
| | | Recycling of batteries | Z00 | Waste battery | Acidic electrolyte<br>Alkaline electrolyte<br>Scrap cathode or anode containing heavy metal compounds | Z00 L48<br>Z00 L58<br>Z00 S66 |
| | | Recycling of tin, solder | Z00 | | Waste mineral oil | Z00 L63 |
| **380-1** | **FABRICATED METAL PRODUCTS, EXCEPT MACHINERY AND EQUIPMENT** | | | | | |
| 3801<br>3802 | Metal toys<br>Nails, screws and hinges | Acid pickling | A04 | Acid | Spent acid | A04 L48 |
| 3803 | Cans and domestic utensils of metal, except aluminium | Dewaxing | D03 | Alkaline cleaner | Spent alkaline solution | D03 L58 |
| 3804<br>3810<br>3811 | Vacuum flasks<br>Cutlery<br>Hand tools and general | Alkaline degreasing | D33 | Alkali<br>Cyanide | Spent alkaline solution<br>Spent solution containing | D33 L58<br>D33 L96 |
| 3812<br>3813<br>3814 | Furniture and fixtures, primarily of metal<br>Structural metal products<br>Aluminium wares | Electrodegreasing | D32 | Acid<br>Alkali<br>Cyanide | Spent acidic solution<br>Spent alkaline solution<br>Spent solution containing | D32 L48<br>D32 L58<br>D32 L96 |
| 3815 | Pressure & kerosene stoves and lanterns and accessories | Solvent degreasing, soaking | D33 | Organic solvent | Spent halogenated solvent<br>Spent non-halogenated solvent | D33 L49<br>D33 L43 |
| 3816<br>3817 | Torches, lamps and parts except torch bulbs<br>Metal wrist watchbands | Vapour degreasing | D34 | Organic solvent | Spent halogenated solvent<br>Spent non-halogenated solvent | D34 L49<br>D34 L43 |
| 3819 | Fabricated metal products, except machinery and equipment, n.e.c. | Metal surface sensitizing | S06 | Acid | Spent acid | S06 L48 |
| | | Phosphating | C45 | Phosphoric acid | Spent acid | C45 L48 |
| | | Lacquer coating | C32 | Organic polymer | Spent solution containing halogenated organics | C32 L49 |
| | | Surface hardening, cyaniding | S20 | Cyanide | Spent cyanide bath | S20 L96 |

*(n.e.c.= not elsewhere classified)*

| SECTOR CODE | INDUSTRY TYPE | PROCESS | PROC CODE | TYPICAL PROCESS CHEMICAL | WASTE STREAM | WASTE CODE |
|---|---|---|---|---|---|---|
| | | Surface hardening, oil quenching | S21 | Quenching oil | Spent mineral oil | S21 L63 |
| | | Paint spraying | P01 | Paint, organic solvent | Surplus paint | P01 M53 |
| | | Paint stripping | S34 | Organic solvent | Spent halogenated solvent<br>Spent non-halogenated solvent | S34 L49<br>S34 L43 |
| | | Electropolishing | P05 | Sulphuric acid, nitric acid | Spent acid | P05 L48 |
| | | Mechanical machining | M03 | Cutting oil/cutting | Spent mineral oil | M03 L63 |
| | | Metal parts cleaning | C06 | Kerosene, diesel, etc. | Spent flammable liquid | C06 L33 |
| | | Process in common with printing (342) and electroplating (3818) industries | | | (Waste streams typical to printing and electroplating industries) | |
| 3818 | Buffing, polishing and electroplating | Acid pickling | A04 | Acid | Spent acid | A04 L48 |
| | | Desmutting | D02 | Acid | Spent acid | D02 L48 |
| | | Dewaxing | D03 | Alkaline cleaner | Spent alkaline solution | D03 L58 |
| | | Barrel degreasing | D31 | Degreasing agent, cyanide | Spent solution containing cyanide | D31 L96 |
| | | Alkaline degreasing | D33 | Alkali<br>Cyanide | Spent alkaline solution<br>Spent solution containing cyanide | D33 L58<br>D33 L96 |
| | | Electrodegreasing | D32 | Acid<br>Alkali<br>Cyanide | Spent acidic solution<br>Spent alkaline solution<br>Spent solution containing cyanide | D32 L48<br>D32 L58<br>D32 L96 |
| | | Solvent degreasing | D33 | Organic solvent | Spent halogenated solvent<br>Spent non-halogenated solvent | D33 L49<br>D33 L43 |
| | | Cyanide dipping | D53 | Cyanide | Spent cyanide solution | D53 L96 |
| | | Acid dipping | D51 | Acid | Spent acid | D51 L48 |
| | | Cadmium plating<br>Chromium plating<br>Black chromium plating | P41<br>P42<br>P43 | Plating chemicals | Spent chromic acid bath in chromium plating | P42 L78 |
| | | Copper plating<br>Gold plating<br>Lacquer plating | P44<br>P46<br>P47 | | Spent plating bath containing heavy metals | #P_ L66 |
| | | Nickel plating | P48 | | Spent plating bath containing cyanide | #P_ L96 |
| | | Black nickel plating<br>Palladium plating<br>Palladium nickel plating<br>Rhodium plating | P49<br>P51<br>P52<br>P53 | | Spent plating bath containing non-halogenated organics | #P_ L43 |
| | | Silver plating<br>Tin plating<br>Tin-cobalt plating | P54<br>P55<br>P56 | | Plating bath sludge containing heavy metals | #P_ M66 |
| | | Bronze plating (tin-copper)<br>Solder plating (tin-lead)<br>Tin-nickel plating<br>Zinc plating<br>Brass plating (zinc-copper)<br>Other plating, n.e.s. | P57<br>P58<br>P59<br>P60<br>P61<br>P70 | | # P_ refers to the corresponding process code on the left column | |
| | | Renewal of filter cartridge from plating baths | F03 | | Filter cartridge containing heavy metals | F03 S66 |

*(n.e.c.= not elsewhere classified)*

| SECTOR CODE | INDUSTRY TYPE | PROCESS | PROC CODE | TYPICAL PROCESS CHEMICAL | WASTE STREAM | WASTE CODE |
|---|---|---|---|---|---|---|
| | | Electropolishing | P05 | Sulphuric acid, nitric acid | Spent acid | P05 L48 |
| | | Passivation | C44 | Nitric acid | Spent acid | C44 L48 |
| | | Bright dipping | D51 | Acid | Spent acid | D51 L48 |
| | | Bronze dipping | C42 | Acid | Spent acid | C42 L48 |
| | | Lacquer coating | C32 | Organic compounds | Spent bath containing halogenated organic compounds | C32 L49 |
| | | Sulphide dipping (Antique finish) | C41 | Potassium polysulphides | Spent bath containing sulphide | C41 L98 |
| | | Phosphating | C45 | Phosphoric acid | Spent acid | C45 L48 |
| | | Reject/Rack stripping | S33 | Nitric acid<br>Cyanide, oxidizing agent | Spent acid<br>Spent solution containing cyanide | S33 L48<br>S33 L96 |
| | | Plate/strip-resist stripping | S31 | Alkali<br>Organic solvent | Spent alkaline solution<br>Spent halogenated solvent<br>Spent non-halogenated solvent | S31 L58<br>S31 L49<br>S31 L43 |
| | | Oxide etching for anodizing | E35 | Alkali<br>Acid, chromic acid | Spent alkali<br>Spent chromic acid solution | E35 L58<br>E35 L78 |
| | | Anodizing | A08 | Sulphuric acid<br>Chromic acid mixture | Spent acid<br>Spent chromic acid solution | A08 L48<br>A08 L78 |
| | | Pigment colouring of anodized layer | C07 | Metal salt | Spent solution containing heavy metals | C07 L66 |
| | | Electrolytic colouring of anodized layer | C08 | Metal salt | Spent solution containing heavy metals | C08 L66 |
| | | Sealing after anodizing | S04 | Metal salt | Spent solution containing heavy metals | S04 L66 |
| | | Paint spraying | P01 | Paint, organic solvent | Surplus paint | P01 M53 |
| | | Paint application | P02 | Paint, organic solvent | Surplus paint | P02 M53 |
| | | Paint stripping | S34 | Organic solvent | Spent halogenated solvent<br>Spent non-halogenated solvent | S34 L49<br>S34 L43 |
| | | Surface roughening (plastic) | S22 | Chromic acid | Spent chromic acid solution | S22 L78 |
| | | Activation for electroless plating | A05 | Palladium and tin salt | Spent solution containing heavy metals | A05 L66 |
| | | Acceleration for electroless plating | A01 | Acid | Spent acid | A01 L48 |
| | | Electroless nickel plating | P50 | Plating chemicals | Spent plating bath containing nickel | P50 L66 |
| | | Electroless copper plating | P45 | | Spent plating bath containing copper<br>Plating bath sludge containing nickel<br>Plating bath sludge containing copper | P45 L66<br>P50 M66<br>P45 M66 |
| | | Vacuum plating | V01 | Metallic compounds | Non-volatile residue containing heavy metals | V01 S66 |

*(n.e.c.= not elsewhere classified)*

| SECTOR CODE | INDUSTRY TYPE | PROCESS | PROC CODE | TYPICAL PROCESS CHEMICAL | WASTE STREAM | WASTE CODE | |
|---|---|---|---|---|---|---|---|
| **382** | **OFFICE, ACCOUNTING AND COMPUTING MACHINERY** | | | | | | |
| 3821 | Office machinery and equipment, except computing and accounting machinery | Solvent cleaning | C06 | Organic solvent | Spent halogenated solvent | C06 | L49 |
| | | | | | Spent non-halogenated solvent | C06 | L43 |
| 3822 | Computing machinery and equipment | Solder flux application | S12 | Flux, organic solvent | Spent halogenated solvent with solder flux | S12 | L49 |
| | | | | | Spent non-halogenated solvent with solder flux | S12 | L43 |
| | | Soldering | S15 | Solder & flux, tinning oil | Spent mineral oil with solder flux | S15 | L63 |
| | | Vapour degreasing | D34 | Organic solvent | Spent halogenated solvent | D34 | L49 |
| | | | | | Spent non-halogenated solvent | D34 | L43 |
| **383** | **RADIO, TELEVISION AND COMMUNICATION EQUIPMENT AND APPARATUS** | | | | | | |
| 3831 | Transistorized radios | Solvent cleaning | C06 | Organic solvent | Spent halogenated solvent | C06 | L49 |
| 3832 | Television receivers and communication equipment | | | | Spent non-halogenated solvent | C06 | L43 |
| 3833 | Sound reproducing and equipment and apparatus | Solder flux application | S12 | Flux, organic solvent | Spent halogenated solvent with solder flux | S12 | L49 |
| 3834 | Records and magnetic tapes | | | | Spent non-halogenated solvent with solder flux | S12 | L43 |
| | | Soldering | S15 | Solder & flux, tinning oil | Spent mineral oil with solder flux | S15 | L63 |
| | | Vapour degreasing | D34 | Organic solvent | Spent halogenated solvent | D34 | L49 |
| | | | | | Spent non-halogenated solvent | D34 | L43 |
| **384** | **ELECTRONIC PARTS AND COMPONENTS** | | | | | | |
| 3840 | Electronic parts and components | Alkaline cleaning | C06 | Alkali | Spent alkaline solution | C06 | L58 |
| | | Electrodegreasing | D32 | Acid | Spent acid | D32 | L48 |
| | | Solvent degreasing | D33 | Organic solvent | Spent halogenated solvent | D33 | L49 |
| | | | | | Spent non-halogenated solvent | D33 | L43 |
| | | Acid pickling | A04 | Acid | Spent acid | A04 | L48 |
| | | Screen printing | P75 | Ink, organic solvent | Surplus ink containing halogenated solvent | P75 | M49 |
| | | | | | Surplus ink containing non-halogenated solvent | P75 | M43 |
| | | | | | Surplus ink containing heavy metals | P75 | M66 |
| | | Pattern developing | P03 | Alkali | Spent alkaline solution | P03 | L58 |
| | | | | Organic solvent | Spent halogenated solvent | P03 | L49 |
| | | | | | Spent non-halogenated solvent | P03 | L43 |
| | | Copper etching | E31 | Copper etchant | Spent copper etchant | E31 | L76 |
| | | Plate/Etch resist removal | S31 | Alkali | Spent alkali | S31 | L58 |
| | | | | Organic solvent | Spent halogenated solvent | S31 | L49 |
| | | | | | Spent non-halogenated solvent | S31 | L43 |
| | | Surface sensitizing before activation | S06 | Acid | Spent acid | S06 | L48 |
| | | Activation | A05 | Palladium and tin salt | Spent solution containing heavy metals | A05 | L66 |
| | | Acceleration | A01 | Acid | Spent acid | A01 | L48 |

*(n.e.c.= not elsewhere classified)*

| SECTOR CODE | INDUSTRY TYPE | PROCESS | PROC CODE | TYPICAL PROCESS CHEMICAL | WASTE STREAM | WASTE CODE |
|---|---|---|---|---|---|---|
| | | Electroless copper plating | P45 | Plating chemicals | Spent plating bath containing heavy metals | P45 L66 |
| | | | | | Plating bath sludge containing heavy metals | P45 M66 |
| | | Solder mask application | S13 | Heat resistant polymer, organic solvent | Surplus polymeric slurry containing flammable substances | S13 M33 |
| | | Hot air levelling | D54 | Solder, tinning oil | Spent mineral oil | D54 L63 |
| | | Solder flux application | S12 | Flux, organic solvent | Spent halogenated solvent with solder flux | S12 L49 |
| | | | | | Spent non-halogenated solvent with solder flux | S12 L43 |
| | | Soldering | S15 | Solder, flux, tinning oil | Spent mineral oil with solder flux | S15 L63 |
| | | Vapour degreasing | D34 | Organic solvent | Spent halogenated solvent | D34 L49 |
| | | | | | Spent non-halogenated solvent | D34 L43 |
| | | Black oxide treatment | O02 | Acid | Spent acid | O02 L48 |
| | | Smear removal | S09 | Chromic acid | Spent solution containing chromium | S09 L78 |
| | | | | Potassium permanganate | Spent solution containing manganese | S09 L66 |
| | | Etch -back | E03 | Glass etchant | Spent acid | E03 L48 |
| | | Tin-lead (solder) stripping | S33 | Fluoroboric acid | Spent acid | S33 L48 |
| | | Solder brightening | S11 | Acid | Spent acid | S11 L48 |
| | | Reject/Rack stripping | S33 | Nitric acid | Spent acid | S33 L48 |
| | | | | Cyanide | Spent solution containing cyanide | S33 L96 |
| | | Photosensitive material coating | C34 | Photoresist, organic solvent | Surplus halogenated solvent with photosensitive material | C34 L49 |
| | | | | | Surplus non-halogenated solvent with photosensitive material | C34 L43 |
| | | Oxide etching in LCD/IC production | E35 | Acid/Glass etchant | Spent acid | E35 L48 |
| | | Coating of LCD plate | C34 | Organic solvent, polyimide | Surplus material containing halogenated solvent | C34 L49 |
| | | | | | Surplus material containing non-halogenated solvent | C34 L43 |
| | | Filling of liquid crystal | F02 | Liquid crystal | Surplus flammable organic material | F02 M33 |
| | | Solvent cleaning | C06 | Organic solvent | Spent halogenated solvent | C06 L49 |
| | | | | | Spent non-halogenated solvent | C06 L43 |
| | | Film developing | P31 | Developer, hydroxide | Spent alkaline developer | P31 L58 |
| | | Film fixing | P32 | Metabisulphite, acetic acid | Spent acidic solution containing silver | P32 L58 |
| | | Sorting of unwanted, rejected or damaged printed circuit board | Z00 | Waste printed circuit board | Waste containing heavy metals | Z00 S66 |
| | | Process in common with electroplating industry (3818) | | | (Waste streams typical to electroplating industry) | |

*(n.e.c.= not elsewhere classified)*

| SECTOR CODE | INDUSTRY TYPE | PROCESS | PROC CODE | TYPICAL PROCESS CHEMICAL | WASTE STREAM | WASTE CODE | |
|---|---|---|---|---|---|---|---|
| **385** | **ELECTRICAL APPLIANCES AND HOUSEWARE AND ELECTRONIC TOYS** | | | | | | |
| 3851 | Electrical appliances and houseware | Paint spraying | P01 | Paint, organic solvent | Surplus paint | P01 | M53 |
| | | Paint stripping | S34 | Organic solvent | Spent halogenated solvent | S34 | L49 |
| | | | | | Spent non-halogenated solvent | S34 | L43 |
| | | Solvent cleaning | C06 | Organic solvent | Spent halogenated solvent | C06 | L49 |
| | | | | | Spent non-halogenated solvent | C06 | L43 |
| | | Vapour degreasing | D34 | Organic solvent | Spent halogenated solvent | D34 | L49 |
| | | | | | Spent non-halogenated solvent | D34 | L43 |
| | | Process in common with plastic (356) and plating (3818) industries | | | (Waste streams typical to plastic and electroplating industries) | | |
| 3852 | Electronic toys | Metal parts cleaning | C06 | Acid | Spent acid | C06 | L48 |
| | | | | Alkali | Spent alkali | C06 | L58 |
| | | Solvent cleaning | C06 | Organic solvent | Spent halogenated solvent | C06 | L49 |
| | | | | | Spent non-halogenated solvent | C06 | L43 |
| | | Soldering | S15 | Flux, tinning oil, solder | Spent mineral oil with solder flux | S15 | L63 |
| | | Vapour degreasing | D34 | Organic solvent | Spent halogenated solvent | D34 | L49 |
| | | | | | Spent non-halogenated solvent | D34 | L43 |
| | | Process in common with plastic (356) and plating (3818) industries | | | (Waste streams typical to plastic and electroplating industries) | | |
| **386-7** | **MACHINERY, EQUIPMENT, APPARATUS, PARTS AND COMPONENTS, n.e.c.** | | | | | | |
| 3861 | Engines and turbines | Surface hardening, cyaniding | S20 | Cyanide | Spent solution containing cyanide | S20 | L96 |
| 3862 | Agricultural machinery and equipment | Surface hardening, oil quenching | S21 | Quenching oil | Spent mineral oil | S21 | L63 |
| 3863 | Metal and wood working machinery | | | | | | |
| 3864 | Special industrial machinery and equipment except metal and wood working machinery | Metal parts cleaning | C06 | Organic solvent | Spent halogenated solvent | C06 | L49 |
| | | | | | Spent non-halogenated solvent | C06 | L43 |
| | | | | Kerosene, diesel, etc. | Spent flammable liquid | C06 | L33 |
| 3865 | Industrial machinery and apparatus for the generation of electricity | | | | | | |
| 3866 | Dry batteries (excluding lead accumulators) | Mixing of anode materials | M05 | Heavy metal compounds | Mixing residue containing heavy metals | M05 | S66 |
| | | Mixing of cathode materials | M05 | Heavy metal compounds | Mixing residue containing heavy metals | M05 | S66 |
| | | Electrolyte preparation | M05 | Hydroxide | Surplus alkali | M05 | L58 |
| | | Metal parts cleaning | C06 | Organic solvent | Spent halogenated solvent | C06 | L49 |
| | | | | | Spent non-halogenated solvent | C06 | L43 |
| | | | | Kerosene, diesel, etc. | Spent flammable liquid | C06 | L33 |
| | | Vapour degreasing | D34 | Organic solvent | Spent halogenated solvent | D34 | L49 |
| | | | | | Spent non-halogenated solvent | D34 | L43 |
| | | Process in common with printing (342) and electroplating (3818) industries | | | (Waste streams typical to printing and electroplating industries) | | |

*(n.e.c.= not elsewhere classified)*

| SECTOR CODE | INDUSTRY TYPE | PROCESS | PROC CODE | TYPICAL PROCESS CHEMICAL | WASTE STREAM | WASTE CODE | |
|---|---|---|---|---|---|---|---|
| 3867 | Electric and torch bulbs and tubes | Paint spraying | P01 | Paint, organic solvent | Surplus paint | P01 | M53 |
| | | Paint stripping | S34 | Organic solvent | Spent halogented solvent | S34 | L49 |
| | | | | | Spent non-halogenated solvent | S34 | L43 |
| | | Glass etching | E33 | Glass etchant | Spent acid | E33 | L48 |
| | | Etch-resist stripping | S31 | Organic solvent | Spent halogenated solvent | S31 | L49 |
| | | | | | Spent non-halogenated solvent | S31 | L43 |
| | | Screen printing | P75 | Ink, organic solvent | Surplus ink containing heavy metals | P75 | M66 |
| 3871 | Machinery and equipment except electrical, n.e.c. | Bronzing | C42 | Silver cyanide | Spent solution containing cyanide | C42 | L96 |
| | | Metallizing | C42 | Silver nitrate, alkali, formalin | Spent solution containing silver | C42 | L66 |
| | | Electrochemical machining | M02 | Electrolyte | Spent electrolyte containing heavy metals | M02 | L66 |
| | | Electrical discharge machining | M01 | Electrolyte | Spent electrolyte containing heavy metals | M01 | L66 |
| | | | | Cooling oil | Spent mineral oil | M01 | L63 |
| | | Mechanical machining | M03 | Cutting oil/Cutting fluid | Spent mineral oil | M03 | L63 |
| | | Process in common with electroplating industry (3818) | | | (Waste streams typical to electroplating industry) | | |
| 3868 | Electronic industrial apparatus | Metal spraying | S18 | Conductive metal | Residues containing metallic oxides | S18 | M66 |
| 3872 | Electrical products and accessories, n.e.c. | Process in common with electronic toys production (3852) | | | (Waste streams typical to electronic toys production) | | |
| 3873 | Electronic products, n.e.c. | | | | | | |
| **388** | **TRANSPORT EQUIPMENT** | | | | | | |
| 3881 | Shipyards | Boiler cleaning for vessels | T01 | Acid | Spent acid | T01 | L48 |
| 3882 | Boatyards | | | | | | |
| 3883 | Railroad equipment | Maintenance of insulation pipings | M33 | | Asbestos waste | M33 | S09 |
| 3884 | Motor vehicles | | | | | | |
| 3885 | Motor-cycles and bicycles | Surface hardening, cyaniding | S20 | Cyanide | Spent solution containing cyanide | S20 | L96 |
| 3886 | Aircraft | | | | | | |
| 3888 | Motor vehicle breaking | Surface hardening, oil quenching | S21 | Quenching oil | Spent mineral oil | S21 | L63 |
| 3889 | Transport equipment, n.e.c. | | | | | | |
| | | Replacement of lubricating, hydraulic, or cooling oils | O01 | Lubricating oil | Spent lubricating oil | O01 | L73 |
| | | | | Hydraulic oil | Spent mineral oil | O01 | L63 |
| | | | | Cooling oil | Spent mineral oil | O01 | L63 |
| | | Decarbonization | D01 | Organic solvent | Spent halogenated solvent | D01 | L49 |
| | | Metal parts/engine cleaning | C06 | Organic solvent | Spent halogenated solvent | C06 | L49 |
| | | | | | Spent non-halogenated solvent | C06 | L43 |
| | | | | Kerosene, diesel, etc. | Spent flammable liquid | C06 | L33 |
| | | Paint spraying | P01 | Paint, organic solvent | Surplus paint | P01 | M53 |
| | | Paint stripping | S34 | Organic solvent | Spent halogenated solvent | S34 | L49 |
| | | | | | Spent non-halogenated solvent | S34 | L43 |
| | | Mechanical machining | M03 | Cutting oil/Cutting fluid | Spent mineral oil | M03 | L63 |
| | | Maintenance of brake / clutch linings | M32 | | Asbestos waste | M32 | S09 |

*(n.e.c.= not elsewhere classified)*

| SECTOR CODE | INDUSTRY TYPE | PROCESS | PROC CODE | TYPICAL PROCESS CHEMICAL | WASTE STREAM | WASTE CODE |
|---|---|---|---|---|---|---|
| | | Battery replacement or recharging | Z00 | | Spent acidic electrolyte<br>Spent battery parts containing heavy metals | Z00 L48<br>Z00 S66 |
| | | Process in common with electroplating industry (3818) | | | (Waste streams typical to eletroplating industry) | |
| **389** | **PROFESSIONAL AND SCIENTIFIC, MEASURING AND CONTROLLING EQUIPMENT, n.e.c. AND PHOTOGRAPHIC AND OPTICAL GOODS** | | | | | |
| 3891 | Photographic and optical goods | Lens polishing | P06 | Polishing oil | Spent mineral oil<br>Sludge containing mineral oil | P06 L63<br>P06 M63 |
| | | Alkaline degreasing | D33 | Alkali | Spent alkaline solution | D33 L58 |
| | | Solvent cleaning | C06 | Organic solvent | Spent halogenated solvent<br>Spent non-halogenated solvent | C06 L49<br>C06 L43 |
| | | Vapour degreasing | D34 | Organic solvent | Spent halogenated solvent<br>Spent non-halogenated solvent | D34 L49<br>D34 L43 |
| | | Mask painting | P02 | Masking paint, organic solvent | Surplus paint | P02 M53 |
| | | Mask stripping | S35 | Organic solvent | Spent halogenated solvent<br>Spent non-halogenated solvent | S35 L49<br>S35 L43 |
| 3892<br>3893 | Watches and clocks, mechanical<br>Watches and clocks, electronic | Solvent cleaning | C06 | Organic solvent | Spent halogenated solvent<br>Spent non-halogenated solvent | C06 L49<br>C06 L43 |
| | | Process in common with electroplating industry (3818) | | | (Waste streams typical to eletroplating industry) | |
| 3899 | Professional & scientific, and measuring and controlling equipment, n.e.c. | Metal parts cleaning | C06 | Organic solvent<br>Kerosene, diesel, etc. | Spent halogenated solvent<br>Spent non-halogenated solvent<br>Spent flammable liquid | C06 L49<br>C06 L43<br>C06 L33 |
| | | Vapour degreasing | D34 | Organic solvent | Spent halogenated solvent<br>Spent non-halogenated solvent | D34 L49<br>D34 L43 |
| | | Paint spraying | P01 | Paint, organic solvent | Surplus paint | P01 M53 |
| | | Paint stripping | S34 | Organic solvent | Spent halogenated solvent<br>Spent non-halogenated solvent | S34 L49<br>S34 L43 |
| | | Lens polishing | P06 | Polishing oil | Spent mineral oil<br>Sludge containing mineral oil | P06 L63<br>P06 M63 |
| | | Solvent cleaning | C06 | Organic solvent | Spent halogentated solvent<br>Spent non-halogenated solvent | C06 L49<br>C06 L43 |
| | | Process in common with electroplating (3818) industry | | | (Waste streams typical to eletroplating industry) | |

*(n.e.c.= not elsewhere classified)*

| SECTOR CODE | INDUSTRY TYPE | PROCESS | PROC CODE | TYPICAL PROCESS CHEMICAL | WASTE STREAM | WASTE CODE |
|---|---|---|---|---|---|---|
| **390-1** | **MANUFACTURING INDUSTRIES, n.e.c.** | | | | | |
| 3901<br>3903<br>3904<br>3905 | Toys, n.e.c.<br>Musical instruments<br>Sporting and athletic goods<br>Wig and hair products | Process in common with plastic products (356); fabricated metal products, except machinery and equipment (380-1); and electrical appliances & houseware and electronic toys (385) industries | | | (Waste streams typical to plastic products industries; fabricated metal products, except machinery and equipment; and electrical appliances & houseware and electronic toys) | |
| 3906 | Bakelite wares | Compounding | M05 | Pigments, additives | Mixing residue containing heavy metals | M05 S66 |
| | | Process in common with mould making (3871) | | | (Waste streams typical to mould making) | |
| 3902 | Jewellery and related articles | Colouring | C07 | Pigments | Spent solution containing heavy metals | C07 L66 |
| 3907 | Artificial pearls and imitation jewellery | Chemical polishing | P04 | Cyanide, hydrogen peroxide | Spent solution containing cyanide | P04 L96 |
| | | Acid cleaning | C06 | Acid | Spent acid | C06 L48 |
| | | Sealing wax stripping | S40 | Organic solvent | Spent non-halogenated solvent | S40 L43 |
| | | Fire assay | I02 | Lead foil | Spent cupel containing lead compounds | I02 S66 |
| | | Process in common with plastic products (356); non-ferrous basic metals, n.e.c. (3723); fabricated metal products, except machinery and equipment (380-1); electroplating (3818) industries | | | (Waste streams typical to plastic products industries; non-ferrous basic metals, n.e.c.; fabricated metal products, except machinery and equipment; and electroplating) | |
| 3908 | Buttons | Compounding | M05 | Pigments, additives | Mixing residue containing heavy metals | M05 S66 |
| | | Process in common with electroplating industry (3818) | | | (Waste streams typical to electroplating industry) | |
| 3911 | Umbrellas | Mechanical machining | M03 | Cutting oil / Cutting fluid | Spent mineral oil | M03 L63 |
| | | Paint spraying | P01 | Paint, organic solvent | Surplus paint | P01 M53 |
| | | Paint stripping | S34 | Organic solvent | Spent halogenated solvent<br>Spent non-halogenated solvent | S34 L49<br>S34 L43 |
| | | Process in common with electroplating industry (3818) | | | (Waste streams typical to electroplating industry) | |
| 3919 | Manufacturing industries, n.e.c. | Paint spraying | P01 | Paint, organic solvent | Surplus paint | P01 M53 |
| | | Paint stripping | S34 | Organic solvent | Spent halogenated solvent<br>Spent non-halogenated solvent | S34 L49<br>S34 L43 |
| | | Metal etching | E34 | Acid | Spent etchant containing heavy metals | E34 L66 |
| | | Solvent cleaning | C06 | Organic solvent | Spent halogenated solvent<br>Spent non-halogenated solvent | C06 L49<br>C06 L43 |
| | | Process in common with printing (342) and electroplating (3818) industries | | | (Waste streams typical to printing and electroplating industries) | |

*(n.e.c.= not elsewhere classified)*

| SECTOR CODE | INDUSTRY TYPE | PROCESS | PROC CODE | TYPICAL PROCESS CHEMICAL | WASTE STREAM | WASTE CODE | |
|---|---|---|---|---|---|---|---|
| **411** | **ELECTRICITY, GAS AND STEAM** | | | | | | |
| 4111<br>4112 | Electric light and power<br>Gas manufacture and distribution | Storage tank cleaning (e.g. fuel oil, lubrication oil, etc.) | T01 | Organic solvent | Spent halogenated solvent<br>Spent non-halogenated solvent<br>Tarry sludge | T01<br>T01<br>T01 | L49<br>L43<br>M33 |
| | | Fuel burning | F05 | Fuel, fuel additives | Residue/ash containing heavy metals | F05 | S66 |
| | | Gas reforming | G02 | Petrochemical, catalyst | Spent catalyst containing heavy metals<br>Tarry materials | G02<br>G02 | S66<br>M33 |
| | | Gas scrubbing | G01 | | Spent acidic solution | G01 | L48 |
| | | Desulphurization | O02 | Petrochemical, catalyst | Spent catalyst containing heavy metals<br>Tarry materials | O02<br>O02 | S66<br>M33 |
| | | Paint spraying | P01 | Paint, organic solvent | Surplus paint | P01 | M53 |
| | | Paint stripping | S34 | Organic solvent | Spent halogenated solvent<br>Spent non-halogenated solvent | S34<br>S34 | L49<br>L43 |
| | | Oil retrofilling from maintenance of transformers | O01 | Cooling oil | Spent mineral oil<br>Spent fluid containing polychlorinated biphenyls | O01<br>O01 | L63<br>L29 |
| | | Oil retrofilling from maintenance of vehicles, ventilation system, etc. | O01 | Lubricating oil | Spent lubricating oil | O01 | L73 |
| | | Metal parts cleaning | C06 | Kerosene, diesel, etc. | Spent flammable liquid | C06 | L33 |
| | | Decarbonization | D01 | Halogenated solvent | Spent halogenated solvent | D01 | L49 |
| | | Solvent cleaning of electrical and electronic parts | C06 | Halogenated solvent | Spent halogenated solvent | C06 | L49 |
| **610** | **WHOLESALE TRADE** | | | | | | |
| 6102<br>6103<br>6105<br>6108 | Fuel<br>Alcoholic drinks and Tobacco<br>Consumer goods<br>Raw materials and semi-manufactures | Storage tank cleaning (e.g. fuel oil, chemical, etc.) | T01 | Organic solvent | Spent halogenated solvent<br>Spent non-halogenated solvent<br>Tarry sludge | T01<br>T01<br>T01 | L49<br>L33<br>M33 |
| | | Treatment of floor spills in holding tank | L01 | | Oily sludge | L01 | M63 |
| | | Damaged, expired, rejected, scrap & unwanted chemicals or products | Z00 | | Waste containing chemicals under Schedule 1 | Z00 | * |
| **620** | **RETAIL TRADE** | | | | | | |
| 6202<br>6203<br>6205 | Fuel<br>Alcoholic drinks and tobacco<br>Consumer goods | Storage tank cleaning (e.g. fuel oil, chemical, etc.) | T01 | Organic solvent | Spent halogenated solvent<br>Spent non-halogenated solvent<br>Tarry sludge | T01<br>T01<br>T01 | L49<br>L33<br>M33 |
| | | Treatment of floor spills in holding tank | L01 | | Interceptor oily sludge | L01 | M63 |
| | | Lubrication services | L02 | Lubricating oil | Oily sludge<br>Spent lubricating oil | L02<br>L02 | M73<br>L73 |
| | | Damaged, expired, rejected, scrap & unwanted Chemicals, drugs, Chinese medicine or products | Z00 | | Waste containing chemicals under Schedule 1 | Z00 | * |

** Refer to remarks on page B-20*
*(n.e.c.= not elsewhere classified)*

| SECTOR CODE | INDUSTRY TYPE | PROCESS | PROC CODE | TYPICAL PROCESS CHEMICAL | WASTE STREAM | WASTE CODE | |
|---|---|---|---|---|---|---|---|
| **630** | **IMPORT/EXPORT TRADE** | | | | | | |
| 6302 | Fuel | Storage tank cleaning | T01 | Organic solvent | Spent halogenated solvent | T01 | L49 |
| 6303 | Alcoholic drinks & tobacco | (e.g. fuel oil, chemical, etc.) | | | Spent non-halogenated solvent | T01 | L33 |
| 6305 | Consumer goods | | | | Tarry sludge | T01 | M33 |
| 6308 | Raw materials and semi-manufactures | Treatment of floor spills in holding tank | L01 | | Interceptor oily sludge | L01 | M63 |
| | | Damaged, expired, rejected, scrap & unwanted Chemicals, drugs, Chinese medicines or products | Z00 | | Waste containing chemicals under Schedule 1 | Z00 | * |
| **710** | **LAND TRANSPORT** | | | | | | |
| 7101 | Motor buses | Oil storage tank cleaning | T01 | | Oily sludge | T01 | M63 |
| 7102 | Tramways and railways | (e.g. fuel oil, lubricating oil, etc.) | | | | | |
| | | Process in common with transport equipment production (388) | | | (Waste streams typical to transport equipment building and repairing) | | |
| **711** | **LAND TRANSPORT** | | | | | | |
| 7118 | Vehicular tunnel | Metal parts cleaning | C06 | Fuel oil | Spent flammable liquid | C06 | L33 |
| | | Paint spraying | P01 | Paint, organic solvent | Surplus paint | P01 | M53 |
| | | Paint stripping | S34 | Organic solvent | Spent halogenated solvent | S34 | L49 |
| | | | | | Spent non-halogenated solvent | S34 | L43 |
| | | Oil retrofilling from maintenance of transformers | O01 | Cooling oil | Spent mineral oil | O01 | L63 |
| | | | | | Spent fluid containing polychlorinated biphenyls | O01 | L29 |
| | | Oil retrofilling from maintenance of vehicles, ventilation system, etc. | O01 | Lubricating oil | Spent lubricating oil | O01 | L73 |
| | | Decarbonization | D01 | Halogenated solvent | Spent halogenated solvent | D01 | L49 |
| | | Solvent cleaning of electrical and electronic parts | C06 | Halogenated solvent | Spent halogenated solvent | C06 | L49 |
| **712** | **WATER TRANSPORT** | | | | | | |
| 7121 | Ocean and coastal water transport (excluding seamen) | Oil/chemical storage tank cleaning (e.g. fuel oil, noxious liquid, etc.) | T01 | Organic solvent | Sludge containing halogenated solvent | T01 | M49 |
| | | | | | Sludge containing non-halogenated solvent | T01 | M43 |
| 7124 | Harbour ferry | | | | | | |
| 7127 | Container services | | | | Waste containing chemicals under Schedule 1 | T01 | * |
| 7129 | Salvaging services | | | | | | |
| | | Boiler cleaning | T01 | Acid | Spent acid | T01 | L48 |
| | | Process in common with transport equipment production (388) | | | (Waste streams typical to transport equipment building and repairing) | | |

** Refer to remarks on page B-20*
*(n.e.c.=not elsewhere classified)*

| SECTOR CODE | INDUSTRY TYPE | PROCESS | PROC CODE | TYPICAL PROCESS CHEMICAL | WASTE STREAM | WASTE CODE | |
|---|---|---|---|---|---|---|---|
| **940** | **MOTION PICTURE AND OTHER ENTERTAINMENT SERVICES** | | | | | | |
| 9401 | Film processing | Stripping of back coating | S35 | Sodium sulphate, borax, sodium hydroxide | Spent alkali | S35 | L58 |
| | | Film developing | P31 | Developer, hydroxide | Spent alkaline solution | P31 | L58 |
| | | Film fixing | P32 | Metabisulphite, acetic acid | Spent acidic solution containing silver | P32 | L66 |
| | | Photographic reduction (bleaching) | P35 | Potassium ferricyanide, thiosulphate | Spent solution containing silver | P35 | L66 |
| | | Photographic intensification (physical deposition) | P33 | Developer, mercury compounds | Spent bath containing mercury | P33 | L66 |
| | | Photographic intensification (oxidation) | P34 | Developer/Ammonia, mercuric chloride | Spent bath containing mercury | P34 | L66 |
| | | Stabilization | S19 | Stablizer / Formaldehyde | Spent stablizer/formalin solution | S19 | L36 |
| | | Sound track developing | S17 | Developer | Spent alkaline solution | S17 | L58 |
| **951** | **REPAIR SERVICES, n.e.c.** | | | | | | |
| 9513 | Repair of motor vehicles and motor cycles | Battery replacement or recharging | M31 | Lead-acid battery | Spent battery containing heavy metals | M31 | S66 |
| | | | | | Spent acidic electrolyte | M31 | L48 |
| | | Process in common with transport equipment production (388) | | | (Waste streams typical to transport equipment building and repairing) | | |
| **952** | **LAUNDRIES, LAUNDRY SERVICES, AND CLEANING AND DYEING PLANTS** | | | | | | |
| 9520 | Laundries, laundry services, and cleaning and dyeing plants | Dry cleaning | D05 | Perchloroethylene/ Halogenated solvent | Spent halogenated solvent | D05 | L49 |
| | | | | | Sludge containing halogenated solvent | D05 | M49 |
| **959** | **MISCELLANEOUS PERSONAL SERVICES** | | | | | | |
| 9592 | Photographic studios, including commercial photography | Stripping of back coating | S35 | Sodium sulphate, borax, sodium hydroxide | Spent alkali | S35 | L58 |
| | | Film/photo developing | P31 | Film/Photo developer | Spent alkaline solution | P31 | L58 |
| | | Film/photo fixing | P32 | Film/Photo fixer | Spent acidic solution containing silver | P32 | L66 |
| | | Photographic reduction (bleaching) | P35 | Potassium ferricyanide, thiosulphate | Spent solution containing silver | P35 | L66 |
| | | Photographic intensification (physical deposition) | P33 | Developer, mercury compunds | Spent bath containing mercury | P33 | L66 |
| | | Photographic intensification (oxidation) | P34 | Developer/Ammonia, mercuric chloride | Spent bath containing mercury | P34 | L66 |
| | | Stabilisation | S19 | Stabilizer / Formaldehyde | Spent stabilizer/formalin solution | S19 | L36 |

*(n.e.c.= not elsewhere classified)*

# CHEMICAL WASTE STREAMS FROM WASTE TREATMENT PROCESSES

| GENERAL PROCESS | PROC CODE | DESCRIPTION | TYPICAL PROCESS CHEMICAL | WASTE STREAM | WASTE CODE | |
|---|---|---|---|---|---|---|
| Centrifuging | C01 | Separation of different substances by centrifuge | | Waste containing chemicals under Schedule 1 | C01 | * |
| Distillation / Solvent recovery | D04 | Purification & separation of components by heat application | | Distilled bottoms containing halogenated solvent and tarry materials | D04 | M49 |
| | | | | Distilled bottoms containing non-halogenated solvent and tarry materials | D04 | M43 |
| Electrolytic extraction | E02 | Electrodeposition of precious metal from waste solution | | Waste acidic electrolyte | E02 | L48 |
| Resin regeneration | R02 | Regeneration of ion-exchange system | Sulphuric acid/Hydrochloric acid | Spent acid | R02 | L48 |
| | | | Sodium hydroxide | Spent alkali | R02 | L58 |
| Liquid separation | L01 | Separation of immiscible liquid in holding tank | | Mineral oil waste | L01 | L63 |
| | | | | Halogenated solvent waste | L01 | L49 |
| | | | | Non-halogenated solvent waste | L01 | L43 |
| Precipitation | P08 | Precipitation by chemical | Acid | Spent acidic solution | P08 | L48 |
| | | | Alkali | Spent alkaline solution | P08 | L58 |
| | | | | Precipitate containing heavy metals | P08 | M66 |
| | | | | Precipitate containing halogenated organic compounds | P08 | M49 |
| Sedimentation | S05 | Separation of solid from liquid by physical settlement | | Sludge containing heavy metals | S05 | M66 |
| | | | | Sludge containing halogenated organic compounds | S05 | M49 |
| Skimming | S08 | Removal of surface layer from a waste liquid or mixture held in a processing/storage tank | | Mineral oil waste | S08 | L63 |
| | | | | Halogenated solvent waste | S08 | L49 |
| | | | | Non-halogenated solvent waste | S08 | L43 |
| Dewatering, centrifuge | D41 | Removal of excessive water from sludge by centrifuge | | Dewatered sludge containing heavy metals | D41 | M66 |
| | | | | Dewatered sludge containing halogenated organic compounds | D41 | M49 |
| Dewatering, filter press | D42 | Removal of excessive water from sludge by filter press | | Dewatered sludge containing heavy metals | D42 | M66 |
| | | | | Dewatered sludge containing halogenated organic compounds | D42 | M49 |
| Dewatering, n.e.s. | D50 | Removal of excessive water from sludge by other methods not elsewhere specified | | Dewatered sludge containing heavy metals | D50 | M66 |
| | | | | Dewatered sludge containing halogenated organic compounds | D50 | M49 |
| Incineration | I02 | Incineration of wastes Metal extraction by calcination | | Incineration ash & slag containing heavy metals | I02 | M66 |
| Gas scrubbing | G01 | Removal of gaseous fumes by scrubber. | | Acidic waste | G01 | L48 |
| | | | | Alkaline waste | G01 | L58 |
| | | | | Scrubbed solution containing halogenated organic compounds | G01 | L49 |
| | | | | Scrubbed solution containing high content of mineral oils | G01 | L63 |
| | | | | Paint waste slurry from paint spraying | G01 | M53 |

** Refer to remarks on page B-20*

| GENERAL PROCESS | PROC CODE | DESCRIPTION | TYPICAL PROCESS CHEMICAL | WASTE STREAM | WASTE CODE |
|---|---|---|---|---|---|
| Reduction | R01 | Reduction of metal ions in solution | Reducing agent | Spent solution containing heavy metals | R01 L66 |
| Adsorption | A07 | Removal of metallic contaminants from solution | Activated charcoal | Spent charcoal containing heavy metals | A07 S66 |
| Ion exchange | I03 | Removal of ions from solution | Resin | Spent resin containing heavy metals | I03 S66 |
| Cyanide destruction | C92 | Destruction of cyanide in solution | Oxidizing agent | | |
| Neutralization | N82 | Neutralization of acidic or alkaline waste | Acid<br>Alkali | | |
| Sorting and recycling of certain WEEE items | S82 | Sorting and recycling of certain electronic equipment | Flat-panel display<br>Cathode ray tube<br>Fluorescent lamp<br>Waste lead-acid battery (WLAB) including WLAB from UPS<br>Printed circuit board | Waste containing heavy metals | S82 S66 |
| Cleansing | C06 | Cleansing of petrol interceptor | Mineral oil | Mineral oil collected from petrol interceptor | C06 L63 |

*(n.e.s.= not elsewhere specified)*

## REMARKS

### HOW TO COMPLETE WASTE CODE DENOTED BY *

The WASTE CODE consists of the concerned PROCESS CODE and WASTE SUB-CODE.
The PROCESS CODE is shown alongside the process name whereas the WASTE SUB-CODE is described below.

**Waste Sub-Code**

The waste sub-code is a 3-digit alpha-numeric code. The first digit is an alphabet which denotes the physical form of the waste as follows:

Physical State: A stands for Aerosol
G stands for Gas in pressurised container
L stands for Liquid
M stands for Miscellaneous (e.g. Sludge)
S stands for Solid

The last two digits are Arabic numeric codes (see Appendix A) denoting the nature of waste. That is to say:
Waste sub-code = Physical state + Numeric code

Examples: L76 stands for liquid copper etchant
M66 stands for toxic metal sludges
S09 stands for solid asbestos waste

# SAMPLE REGISTRATION FORM

**Environmental Protection Department**
**環 境 保 護 署**

**Waste Disposal Ordinance (Chapter 354)**
**香港法例第 354 章廢物處置條例**
**Waste Disposal (Chemical Waste)(General)Regulation**
**廢物處置 (化學廢物) (一般)規例**
**Application for Registration as a Chemical Waste Producer**
**化學廢物產生者登記申請表**

**A. Chemical Waste Producer 化學廢物產生者**

Name of Applicant (English) (申請人或機構名稱) : (英 文) Item 1 (Chinese) (中 文) _____
Business Reg. Cert. No. (if any) (商 業 登 記 證 編 號 ) : (如 有 者 ) Item 2
I.D. Card No. (For application made by an individual only) (身分證編號) : ( 倘 由 個 人 申 請 ) Item 3
Address for Correspondence ( 通 訊 地 址 ) : Item 4
Tel. No. (電 話) : Item 5 Fax No. (圖文傳真) : Item 6

**B. Location or Premises where the waste is produced 產生廢物的地點或處所**

Name of Establishment ( 機 構 名 稱 ) : Item 7
Business Reg. Cert. No. (if any) ( 商 業 登 記 證 編 號 ) : (如有者) Item 8
Nature of Business ( 業 務 性 質 ) : Item 9
Major chemical waste types ( 主 要 化 學 廢 物 種 類 ) : Item 10
Address (地 址 ) : Item 11
Tel. No. (電話) : Item 12 Fax No. (圖文傳真) : Item 13
Contact Person (Full Name) ( 聯 絡 人 ) : ( 全 名 ) : Item 14 (Capacity) (職 位 ) : Item 15

**C. Declaration 聲 明**

I hereby certify that the particulars given above are correct and true to the best of my knowledge and belief.
據本人所知及所信，上文所開列的資料，全屬真確無訛，此證。

Item 16 *Signature* (簽名)
Item 17 *Company chop where appropriate* (公司印鑑 如適用者)
Item 18 *Name in block letters* (正楷姓名)
Item 19 *Capacity* (職位)
Item 20 *Date*(日期)

**WARNING** : Any person who knowingly or recklessly provides incorrect or misleading information or omits material particulars or information or knowingly or recklessly certifies as correct anything which is incorrect, in relation to any requirement in the regulations, commits an offence punishable with a maximum fine of $200,000 and imprisonment for 6 months.

**警 告**：根據廢物處置(化學廢物)(一般)規例的規定，任何人士故意或罔顧後果地提供不正確或誤導資料或遺漏重要事項，又或故意或罔顧後果地證明任何不正確事項屬正確，即屬違法，最高可被判罰款港幣 200,000 元及入獄 6 個月。

EPD 129 (Jan 2015)

Application form for registration of chemical waste producer is available from the following link:
http://www.epd.gov.hk/epd/sites/default/files/epd/tc_chi/application_for_licences/applic_froms/files/epd129.pdf