3701-06 Chemicals, N.O.C.: Manufacturing chemical mixing, blending, and repackaging nitrate recovery from X-ray and photo films

Applies to:

Businesses engaged in manufacturing:

- Acetylene gas;
- Acid;
- Ammonia;
- Ammonia nitrate;
- Borax;
- Carbonic acid gas, also known as phenol;
- Chemicals using a nitration, alkylation or oxidation process;
- Dry ice;
- Dyes, including dye and chemicals used for tinting candles;
- Fireworks;
- Nitrogen;
- Oxygen and hydrogen;
- Potash;
- Salt.

Businesses engaged in:

• Recovering nitrate or silver from X-ray and photo films.

• Mixing, blending or repackaging chemicals, but not manufacturing the ingredients.

Products manufactured and processes used include, but are not limited to:

• Acetylene gas - Highly flammable but nontoxic gas that is manufactured by reacting calcium carbide with water in a pressure generator, which combines carbon and lime to form the product.

• Ammonia - Colorless gas used as a component in fertilizer, medicines and cleaning compounds manufacturing. Involves combining hydrogen and nitrogen gases with a catalyst, which causes a reaction between the two gases when heated in a generator.

• Ammonia nitrate - Crystalline compound used mainly in fertilizers, explosives and propellants. Involves combining ammonia and nitric acid in a reactor.

• Borax - Used in manufacture of glass, glazes, soap, and boric acid. Produced by separating it from the potash by a rapid cooling process. Evaporated by heating in a partial vacuum to produce crystals or granules which are dried.

• Carbonic acid gas, also known as phenol - Caustic poisonous gas used in manufacturing resins, plastics, and disinfectants. The manufacture of phenol involves a compression and refrigeration process.

• Chemicals using a nitration, alkylation or oxidation process:

- Alkylation - Involves combining alkyls with other substances to form products used in the production of paper pulp, hard soap and pe-troleum products.

- Nitration - Involves the combining of nitrate with an organic compound to produce nitrobenzene used in solvents, fertilizers and acids.

- Oxidation - Involves the combining of oxygen with other substances to produce products such as; but not limited to, hydrogen peroxide, protective metal coatings, and pharmaceutical preparations.

• Dry ice - Carbon dioxide in a solid form.

• Dyes, including dye and chemicals used for tinting candles -Made from organic and inorganic compounds. Manufacturing methods include weighing raw materials, pumping them into vats, heating, agitating, cooling, filtering through presses, and packaging. May also include drying and grinding into powder or may be left in liquid or paste forms.

• Fireworks.

• Mixing, blending or repackaging chemicals, but not manufacturing the ingredients - Mixed by hand or through a mechanical process.

• Nitrogen - Colorless gas that is obtained from the air and processed by compressing air in a pressurized tank, removing impurities, and separating nitrogen and oxygen through heating.

• Oxygen and hydrogen - Involves the recovery of these gaseous elements from the air by compression, expansion and cooling operations until it liquefies. Liquid air then goes to a fractionator where the oxygen is separated from the hydrogen along with other gases such as neon and helium.

• Potash - Used in fertilizer. Refined by adding an amine to the brine, which causes the salts to float to the surface where they are skimmed off. Evaporated by heating in a partial vacuum to produce crystals or granules, which are dried.

• Salt - Used in chemicals and food processing. Salt ores are dissolved in water to produce a brine of the desired concentration. Refined into common salt by adding caustic soda and soda ash. Evaporated by heating in a partial vacuum to produce crystals or granules, which are dried.

• Recovering nitrate or silver from X-ray and photo films - Placing films in developing solutions, ionizing the solution and separating the elements.

Equipment includes, but is not limited to:

- Pressurized tanks;
- Vats;
- Screens;
- Ovens;
- Grinding machines;
- Mixing and blending machinery;
- Filling and packaging machinery;
- Fork lifts;
- Trucks.

Exclusions:

• Technicians who set up and carry out fireworks displays are classified in 6207.

• The production of salt ores used in the manufacture of salt, borax, and potash.

Note: For rules on assigning and reporting in more than one basic classification, see WAC 296-17-31017 Multiple classifications.

3701-08 Cosmetic, pharmaceutical, serum: Manufacturing

Applies to:

Businesses engaged in the manufacture of cosmetics, pharmaceuticals, serums, antitoxins or viruses.

Products include, but are not limited to:

- Soaps;
- Shampoo/conditioners;
- Creams, gels or lotions;
- Baby powder;
- Lipstick;

- Nail polish;
- Bath oils/salts;
- Tablets/pills;
- Ointments;
- Liquids/powders (pharmaceutical);
- Serums.

Work activities include, but are not limited to:

• Mixing of premanufactured ingredients.

• Mixing or blending of base medicinal ingredients and additives such as, but not limited to, sugars, starches, flavorings and waxes used for coatings.

- Bottling/packaging/labeling and laboratory equipment.
- Pulverizing, distilling, heating and drying product.
- Microscopic laboratory work.

• Working with animals, injecting with bacteria and viruses (eventually killing animal).

Killing of the animals is included in this classification as it is incidental and necessary to perform the operation to extract the serum from the glands and to separate the red blood cells from the blood.

Equipment includes, but is not limited to:

- Storage tanks;
- Mixers;
- Heating devices;
- Bottling/packaging/labeling equipment;
- Laboratory equipment.

Exclusions:

• Manufacture of ingredients used in the mixing of the cosmetics.

- Manufacture or harvest of ingredients used in the manufacture of the pharmaceuticals.
 - Retail compounding pharmacy stores are classified in 6406-16.

Note: For rules on assigning and reporting in more than one basic classification, see WAC 296-17-31017 Multiple classifications.

3701-14 Extract, alcohol, perfume manufacturing; mint, including distillation of essential oils N.O.C.

Applies to:

Businesses engaged in manufacturing or distilling:

• Alcohol - Not for ingestion.

• Extracts - Extracts are the concentrated forms of the essential components of a food or a plant.

- Mint.
- Perfumes.

Processes used include, but are not limited to:

• Alcohol - All use a distillation process, which involves the heating of liquids and resulting condensation of vapors to purify or create a substance contained in the original wood or grain product.

• Extracts - The process for obtaining extracts involves pressing, cooking, steaming, or distillation from plants, herbs, or fruit peelings. Extracts may be mixed or blended with other ingredients for greater strength, color, or consistency. Products are bottled or canned.

• Mint - Mint distillation may begin with the use of mint oil distilled by a supplier or with the distillation of the mint into mint

oil. Mint leaves are chopped and blown into a steamer, which lifts the moisture and oils. Steam then passes through a series of condensation lines. Water is added to bring the oil to the top of the liquid. The mint oil is heated for purification and fragrance. Various mint oils may be blended together to produce distinctive products such as spear-mint or peppermint.

• Perfumes - The process may involve distillation, cooking, grinding, compounding, drying, blending or liquidizing of ingredients. Ingredients may include extracts, oils, colors, and binders.

Products include, but are not limited to:

- Methanol (wood alcohol);
- Ethanol (grain alcohol);
- Denatured alcohol (combination of methanol and ethanol);
- Solvents;
- Germicides;
- Pesticides;
- Antiseptics;

• Materials intended for use in other products such as varnish or shellac;

• Flavorings, including mint, spearmint, and peppermint;

• Perfumes used to manufacture other products such as scented candles;

- Personal fragrances;
- Essential oils;
- Sachet powders;
- Ingredients for skin conditioners;

• Hop extracts used in the brewing of beer.

Equipment includes, but is not limited to:

- Distillation equipment;
- Steam cookers;
- Presses;
- Filters;
- Grinders;
- Vats;
- Vapor extraction equipment;
- Storage tanks;
- Mixers;
- Heating equipment;
- Forklifts;
- Laboratory equipment;
- Bottling, packaging, labeling equipment;
- Delivery trucks.

Exclusions:

• Manufacturing of spirituous liquor for ingestion is classified in 3702.

• Candle manufacturing is classified in 3701-22.

• Worker hours engaged in gasohol manufacturing or refining are reported separately in classification 3407.

• Worker hours engaged in hop pellet manufacturing are reported separately in classification 2101.

• Worker hours engaged in mint raising or harvesting are reported separately in classification 4811.

Note: For rules on assigning and reporting in more than one basic classification, see WAC 296-17-31017 Multiple classifications.

3701-22 Pigment solutions or emulsion: Manufacturing

```
Applies to:
```

Businesses engaged in manufacturing a variety of chemical products including, but not limited to:

- Candles;
- Crayons;
- Dressings, see polish;
- Enamel, see paint;
- Glue;
- Ink, all types;
- Lacquer, see paint;
- Paint;
- Paint removers and thinners;
- Paste, see glue;
- Polish, also known as dressings include, but are not limited
- to:
- Shoe polish;
- Leather polish;
- Furniture polish;
- Automobile polish;
- Metal polish.
- Putty;
- Shellac, see paint;
- Synthetic resin, see putty;
- Varnish.

Processes used include, but are not limited to:

• Candles - Wax is heated. Wicks are dipped in the wax either by hand or machine. Fragrances are added for scented candles. When the candles are dried, their wicks are cut and they are placed in molds to shape the base. Color may be added by hand or by machine. The candles are inspected, wrapped, packaged, and labeled.

• Crayons - Similar to candles, but crayons are molded instead of dipped.

• Dressings or polish - Ingredients and processes vary dependent upon the product. Process may be simple and involve only mixing, or process may be detailed and involve heating or cooking and forming into a mold or stick form.

• Paint, enamel, lacquer, shellac - Involves a series of mixing and grinding operations. Solid pigments are blended with liquid resins. Paint extender may be added. Paint is pumped into filling stations. Containers of paint are packaged, labeled and shipped.

• Glue or paste - Involves mixing and cooking the ingredients in steel tanks and pumping the product to a filling area where it is packaged, labeled and capped.

• Ink - Involves cooking of oils and resin. Pigments and dryers are blended into the resin, which is then diluted to the proper consistency.

• Putty or synthetic resin - Putty is a finely powdered chalk mixed with linseed oil. Putty and synthetic resins have the same ingredients. Both are made by grinding and mixing.

• Varnish - Similar to paint manufacturing process. Manufacturing varnish also includes a cooking process.

Ingredients used include, but are not limited to:

• Beeswax;

• Paraffin;

- Stearin;
- Wicks;
- Powder or granule Arabic gum;
- Modified starch received from others;
- Pigments or coloring;
- Oils;
- Other waxes;
- Resins;
- Detergents;
- Methanol;
- Solvents;
- Water;
- Ground chalk;
- Limestone;
- Calcite;
- Preservatives.

Equipment includes, but is not limited to:

- Weighing and measuring scales;
- Mixers;
- Stoves;
- Molding apparatus;
- Automatic filing, labeling, and packaging machines;
- Forklifts;
- Delivery trucks.

Exclusions:

• The production of raw materials used to manufacture listed products.

• Worker hours engaged in glue manufacturing from animal substances are reported separately in classification 4301.

Note: For rules on assigning and reporting in more than one basic classification, see WAC 296-17-31017 Multiple classifications.

3701-27 Hazardous/toxic material: Repackaging for disposal

Applies to:

Businesses engaged in identifying and repackaging hazardous/toxic materials for disposal.

Note: This class is distinguished from classification 4305-20, in that classification 3701-27 applies to the identifying and repackaging for disposal of such materials as drugs, pesticides, chemicals, and toners that contain toxic or hazardous materials, while classification 4305-20 includes the processing or handling of such materials as medical or septic tank waste, drug lab or hazardous spill cleanup, and reprocessing or handling of low-level radioactive materials.

Work activities include, but are not limited to:

- Visual inspection of materials.
- Sending sample of materials to lab for analysis.
- Identifying components of material.
- Labeling of containers, by appropriate groupings.

• Materials are put into drums with protective material to prevent breakage.

- Complete paperwork required by various governmental agencies.
- Transport of material to disposal site.

• Lab analysis - Businesses may have their own lab facilities or may send to outside lab.

Protective clothing and equipment includes:

- Respirators;
- Steel toed boots;
- Protective gloves;

- Safety glasses;
- Protective clothing.

Exclusions:

• Worker hours engaged in hazardous/toxic materials processing or handling, including processing of medical or septic tank waste, drug lab or hazardous spill cleanup, reprocessing or handling of low-level radioactive materials must be reported separately in classification 4305-20.

• Worker hours engaged in the replacement of nontoxic toner in cartridges used in business machines are reported separately in classification 4107.

Note: For rules on assigning and reporting in more than one basic classification, see WAC 296-17-31017 Multiple classifications.

[Statutory Authority: RCW 51.04.020 and 51.16.035. WSR 21-22-090, § 296-17A-3701, filed 11/2/21, effective 1/1/22; WSR 20-20-108, § 296-17A-3701, filed 10/6/20, effective 1/1/21; WSR 14-17-085, § 296-17A-3701, filed 8/19/14, effective 9/19/14. Statutory Authority: RCW 51.16.035, 51.16.100, 51.04.020(1). WSR 10-24-118, § 296-17A-3701, filed 12/1/10, effective 1/1/11. WSR 07-01-014, recodified as § 296-17A-3701, filed 12/8/06, effective 12/8/06. Statutory Authority: RCW 51.16.035. WSR 98-18-042, § 296-17-599, filed 8/28/98, effective 10/1/98; WSR 96-12-039, § 296-17-599, filed 5/31/96, effective 7/1/96; WSR 85-24-032 (Order 85-33), § 296-17-599, filed 11/27/85, effective 1/1/86; WSR 83-24-017 (Order 83-36), § 296-17-599, filed 11/30/83, effective 1/1/84; WSR 82-24-047 (Order 82-38), § 296-17-599, filed 11/27/75, effective 1/1/83. Statutory Authority: RCW 51.04.020(1) and 51.16.035. WSR 78-12-043 (Order 78-23), § 296-17-599, filed 11/27/74, effective 1/1/75; Order 73-22, § 296-17-599, filed 11/9/73, effective 1/1/74.]