



Powder Technology
Division

Niro

Applications

Products suitable for processing on Niro plants



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1**Polymers and resins**

Acrylonitrile butadiene resin
Acrylonitrile butadiene styrene resin

Ethylene-vinyl acetate
Melamin formaldehyde resin
Phenol formaldehyde resin

Polyacrylate
Polyacrylonitrile
Polyamide

Polycarbonate
Polyethylene
Polyethylene terephthalate

Polyformaldehyde (polyacetal)
Polypropylene
Polystyrene

Polyvinyl acetate
Polyvinyl alcohol
Polyvinyl chloride emulsion-type

Polyvinyl chloride suspension-type
Polyvinyl pyrrolidone
Polyvinylidene chloride

Styrene acrylonitrile resin
Styrene butadiene resin
Urea formaldehyde resin

2**Dyestuffs and pigments**

Basic dyes
Cadmium carbonate

Cadmium sulphide
Ceramic colours
Chrome-yellow

Copper oxide
Dyestuff intermediates
Food colours

Formulated dyestuffs
Indigo
Iron oxide

Kaolin
Lithopone
Milor blue

Organic pigments
Phtalocyanines
Soluble and microdisperse dyestuffs

Titanium dioxide
Water colours
Zinc chromate

Zinc potassium chromate
Zinc tetroxichromate

3**Ceramics and related products**

Aluminium oxide
Barium titanate

Bentonite
Beryllium oxide
Carbides

Electroporcelain
Enamels
Ferrites

Floor tile material
Glass powder
Grinding wheel material

Insulator material
Iron oxide
Kaolin

Mosaic tile material
Silicium nitride
Silicium oxide

Spark plug material
Steatite
Titanates

Tungsten carbide
Uranium oxide
Wall tile material

Zinc oxide
Zirconium oxide
Zirconium silicate

4**Pesticides and related agrochemicals**

Calcium arsenate
Copper oxychloride

Cuprous oxide
2,4 DBA Sodium salt
2,4,6 TBA Sodium salt

2,4 Dichloro-phenoxyacetic acid
2,4 Dichloro-phenoxypropionic acid mono
methylamine salt

Dichloro-phenoxypropionic acid
Dichloro-propionic acid sodium salt
Dimethyl-dipyridyl dichloride

Dithane
Lead arsenate
Mangano-ethylene-bis-dithiocarbamate (Maneb)

Methyl-chloro-phenoxyacetic acid
Methyl-chloro-phenoxyacetic acid sodium salt
Methyl-chloro-phenoxybutyric acid sodium salt

Methyl-chloro-phenoxypropionic acid
Methyl-chloro-phenoxypropionic acid sodium salt
Polyacrylamide

Sodium-aluminium-fluoride
Sodium-methyl-arsenate
Sodium-penta-chlorophenolate

Sulphur colloidal
Zinc-diethyl-dithiocarbamate
Zinc-dimethyl-dithiocarbamate

Zinc-ethylene-bis-dithiocarbamate (Zineb)

5**Carbohydrates and related products**

Aspartame
Cane sugar molasses

Carboxy-methyl-cellulose (CMC)
Corn steep liquor
Corn syrup

Dextran
Dextrose monohydrate
Fructose

Glucose
Glucose syrup
Gum arabic

Hydrolyzed cellulose
Inulin
Lactose

Malto-dextrins
Micro crystalline cellulose
Molasses

Pectin
Saccharin
Sorbitol

Starch
Total sugar
Wheatflour

6**Milk, eggs, and related products**

Baby food
Butter

Buttermilk
Casein
Caseinates

Cheese
Cheese powder
Cocoamilk with sugar

Cream
Dairy product blends
Egg:

- egg white
- egg yolk
- whole egg

Fat filled milk
High fat dairy blends
Hydrolyzed milk products

Ice cream mix
Lactose
Milk permeate

Milk protein
Mixed milk products
Non-fat dairy blends

Skimmilk
Sweetened condensed milk
Whey:

- whey, acid
- whey, delactosed
- whey, fatfilled
- whey, sweet

Whey mother liquor
Whey permeate

Whey protein
Whole milk

Artichoke extract
Banana

Barley
Brewery spent grains
Brewery yeast

Cake mixes
Camomile tea
Carrageenan

Cereals
Chicory
Cocoa mixtures

Coconut milk
Coffee
Coffee extract

Coffee substitute extract
Coffee whitener
CMC

Emulsifying agents
Decaffeinated coffee extract
Fat flour mixtures

Fermentation products
Flavourings
Food additives

Food colour
Frangula
Fruit juices with fillers

Garlic
Gensing
Herb extract

Hibiscus
Hip extract
Hydrolyzed cellulose

Liquorice extract
Malt extract
Monoglyceride

Milk coffee mixture
Pimiento
Plant protein

Protein hydrolysate
Rennet
Soup mixes

Soya milk
Soya paste
Soy protein

Spent grains
Tea
Tea extract

Tomatoes
Yeasts

Algae: chlorella
Algae: spirulina

Amino acid
Amyoxycillin
Ampicillin

Amylase
Antibiotics
Aspirin

Bacitracin
Bacterial spores
Blood plasma

Blood serum
Bovine brain extract
Calcium gluco heptonate

Calcium gluconate
Calcium lactate
Calcium lactobionicum

Citric acid
Culture media
Dextran

Dicalcium citrate
Enzymes
Eucalyptus

Extracts of tea, coffee, herbs
Flavomysin
Flavourings

Fodder yeast
Gelatine
Ginseng

Glucose
Glutamic acid
Glycerides

Gum arabic
Hormones
Lactose

Liquorice
Liver extract
Lysine

Mycelium vitamin B12
Nucleic acid
Oleandomycin phosphate

Oxytetracycline
Paracetamol
Pectin

Penicillin
Peptone
Protease

Protein
Protein hydrolysate
Rutin derivatives

Saccharose
Salinomycin
Sodium ampicillin

Sorbitol
Starches

Streptomycine sulphate
Sulphathiazole
Tetracycline

Valerian
Vitamin A,E,K
Yeast

Waxes

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Tannins

Chestnut extract
Chrome tannin

Chromium sulphate
Divi-divi extract
Mimosa extract

Myrobalan extract
Quebracho extract
Synthetic tannin

Wattle extract

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Blood and slaughterhouse by-products

Animal protein
Blood

- hemoglobin
- plasma
- whole blood

Brain
Gelatine and hydrolyzed gelatine
Glands, various (enzymes & hormones)

Liver

11**Detergents and surface active agents**Alkyl-aryl sulphonates
Dispersing agentsEmulsifying agents
Enzymes
Fatty alcohol sulphateHeavy-duty detergents
Light-duty detergents
Mono- and dipotassium orthophosphateMono- and disodium orthophosphate
Nitrilo tri-acetic acid salts
Optical brightenerPhosphates
Saponine
SoapSodium lauryl sulphate
Sodium perborate
Sulphonates

Tetra potassium polyphosphate

12**Fertilizers**Fertilizer blends
NitratesPhosphates
Sulphates
Urea**13****Organic chemicals**Adipic acid
Aluminium formiateAluminium hydroxide-chloride
Aluminium stearate
Aluminium sulphate sucrose esterAmino naphthol disulphonic acid
Amino undecanoic acid
AntrachinonAspirin
Azides
Barium sulphateBismuth compounds, organic
Cadmium carbonate
Calcium acetateCalcium butyrate
Calcium pantothenate
Calcium propionateCalcium saccharate
Calcium stearate
Cellulose acetateChloramphenicol succinate
Cholistin methane sulphonate
CMCCodeine phosphate
EDTA-salts
EtaphyllineGlycerides
Glyoxal
Iron dextranIron dextran glucoside
Lead stearate
Mercaptothiazole suspensionMetal stearates
Nicotinic acid
Oxalic acidp-Amino salicylic acid
Phenoles:

- bisphenol A
- pentachlorophenate
- pentachlorophenole
- potassium phtalate

Potassium sorbate
Rubber accelerants
Rubber (chlorinated)Salicylic acid
Sodium acetate
Sodium benzoateSodium dichloroisocyanurate
Sodium-dimethyl-dithiocarbamate
Sodium ethylxanthateSodium phenate
Sodium sorbite
StearatesStearic acid
Sulphonated naphthaline
Synthetic tannin

Waxes

Aluminium chloride
Aluminium hydroxide

Aluminium oxide
Aluminium phosphate
Aluminium silicate

Aluminium sulphate
Ammonium chloride
Ammonium diuranate

Ammonium molybdate
Ammonium nitrate
Ammonium phosphate

Ammonium sulphate
Antimony sulphide
Arsenic oxide

Barium carbonate
Barium chloride
Barium hydroxide

Barium sulphate
Barium titanate
Bauxite waste liquor

Bismuth carbonate
Borax
Boric acid

Cadmium carbonate
Calcium bromide
Calcium carbonate

Calcium chloride
Calcium hydroxide
Calcium phosphate

Calcium propionate
Calcium silicate
Calcium sulphate

Carbon black
Catalysts based on:

- bismuth
- iron
- nickel
- platinum
- silica
- vanadium
- zinc

Cement
Chromium dioxide
Chromium sulphate

Cobalt sulphide
Colloid silica
Copper hydroxide

Copper, pulverized
Copper ore concentrate
Copper oxichloride

Copper sulphate
Copper sulphide
Cryolite

Cupric oxide
Graphite

Iron oxide
Iron chelate
Kaolin

Lead oxide
Lead sulphate
Lithium chloride

Lithopone
Magnesium aluminium silicate
Magnesium chloride

Magnesium hydroxide
Magnesium uranate
Manganese carbonate

Manganese dioxide
Manganese oxide
Molybdenum disulphide

Nickel carbonate
Nickel hydroxide
Nickel ore concentrate

Nickel sulphide
Platinum ore concentrate
Potassium bicarbonate

Potassium carbonate
Potassium chloride
Potassium fluoride

Potassium-manganese peroxide
Potassium nitrate
Potassium permanganate

Potassium persulphate
Potassium phosphate
Pyrophyllite

Rare earth
Salt
Selenium sulphonate

Silica
Sodium aluminium silicate
Sodium antimonate

Sodium bicarbonate
Sodium bichromate
Sodium carbonate

Sodium chloride
Sodium chlorite
Sodium chromate

Sodium citrate
Sodium cyanide
Sodium hydrogen sulphate

Sodium hydrogen sulphite
Sodium hypochlorite
Sodium orthophosphate

Sodium perborate
Sodium phosphate
Sodium silicate

Sodium silico aluminate
Sodium silicofluoride

Sodium sulphate
Thorium carbonate
Uranium dioxide

Zeolite
Zinc carbonate
Zinc potassium chromate

Zinc sulphate

Cellulose-based chemicals and related products

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Chemical pulp
Fibreboard white water

Mechanical pulp
Secondary fibres
Sulphite waste liquor

Products for calcination, combustion, incineration

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Calcination:

Alumina hydrate

Cement
Lime mud
Lime stone

Magnesite
Phosphate rock

Combustion:

Bark
Biofuels

Lignite
Wood chips / waste wood products

Incineration:

Carbonate liquor
NSSC liquor

Refinery waste
Sewage sludge
Spent coffee grounds

Waste oil and tar

Toxic gas removal:
Dioxines

Hydrogen bromide
Hydrogen chloride
Hydrogen fluoride

Hydrogen iodide
Nitrogen oxides
Sulphur dioxide

Sulphur trioxide
Trace metal

Liquid / sludge treatment:
Industrial and municipal sludge
Scrubber effluent

Waste water

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