

BUYERS' GUIDE

NATIONAL LEAD COMPANY PRODUCTS



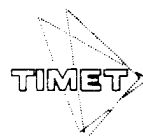
MAGNUS



**CANADA
METAL**



THESE ARE TRADEMARKS
WHICH APPEAR ON MANY
OF THE PRODUCTS
LISTED IN THIS "GUIDE"



PIONEER



This booklet has been compiled with three ends in view:

1. To acquaint industrial purchasing, specification and production people with the true scope of National Lead Company's operations.
2. To provide an alphabetical listing of all Company products in-being at the time of publication. Included are off-the-shelf goods as well as items produced on order and to customer's specifications.
3. To furnish an up-to-date list of sales and service offices to which orders and inquiries may be sent.

To locate products in which you are interested, simply look through the alphabetical listing—pages 4 to 13. Products are listed by their generic names wherever possible. As will be noted, in many cases, various types, grades or forms of the basic product are included parenthetically in the listing.

To locate offices to contact when placing orders or making inquiries, note the code designation (letters and numerals) given with each product. The key to these codes is printed on page 3. Names and addresses of the code-designated Company units appear on pages 14 to 21.

[Design, engineering and development services available at National Lead Company are described on page 21.]

Once considered solely a source of commodities based largely on lead, National Lead Company has so diversified its activities that today its products reach virtually all segments of industry. This booklet bears out that statement. Some of the items listed are standard, basic materials, the demand for which remains constant. Many of the products now available, however, were "researched" into being—the result of National Lead's continuous and expanding program for development of materials to meet new needs arising from new technological advances in numerous fields. In seeing in print, perhaps for the first time, our complete line of merchandise, buyers may well take advantage of this opportunity to consolidate their purchases, so far as possible, with a quality rated, single source, single responsibility supplier —

NATIONAL LEAD COMPANY

The paper used for this booklet contains TITANOX brand titanium dioxide — the whitening, brightening, opacifying pigment manufactured by Titanium Division of National Lead Company. The type, for reproduction proof purposes, was set in BLATCHFORD brand type metal, a product of the Metal Division of National Lead Company.

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Key to letter-number codes by Product Groups

SECTION *A* METALS AND METAL PRODUCTS

CODE	SOLD BY	ADDRESSES
A1	All National Lead Co. Branches	Page 14
A1a	Morris P. Kirk & Son, Inc.	Page 14
A1b	Pioneer Aluminum, Inc.	Page 14
A2	Acid Recovery Department	Page 15
A3	American Bearing Corporation	Page 15
A4	Canada Metal Company, Ltd.	Page 15
A5	Doehler-Jarvis Division	Page 15
A6	Goldsmith Bros. Division	Page 15
A7	Magnus Metal Corporation	Page 16
A8	Master Metals, Inc.	Page 16
A9	Nuclear Metals Division	Page 16
A10	Southern Screw Company	Page 16
A11	Titanium Alloy Manufacturing Division	Page 16
A12	Titanium Metals Corporation of America	Page 16

SECTION *B* CHEMICALS, PIGMENTS AND OILS

B1	All National Lead Co. Branches	Page 17
B2	Baker Castor Oil Company	Page 17
B3	Canadian Titanium Pigments Limited	Page 17
B3a	Enelchem Division	Page 17
B4	De Lore Division	Page 18
B5	Evans Lead Division	Page 18
B6	Titanium Pigment Corporation	Page 18
B7	Titanium Alloy Manufacturing Division	Page 18
B8	Goldsmith Bros. Division	Page 18

SECTION *C* PAINT AND ALLIED PRODUCTS

C1	All National Lead Co. Branches	Page 19
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SECTION *D* OIL WELL DRILLING MATERIALS, MINERALS, REFRACTORIES AND OTHER PRODUCTS

D1	Baroid Division	Page 20
D2	Floating Floors, Inc.	Page 20
D3	Steel Package Division	Page 20
D4	The Chas. Taylor Sons Company	Page 20
D5	Nalcon Division	Page 20
D6	Titanium Alloy Manufacturing Division	Page 21
D7	Titanium Division	Page 21

(Fold page out for quick reference to Codes in Product List)

PRODUCT LIST

A

Acid Bottles, Lead	A1 A4
Acids, Fatty	B2
(Castor Oil, Dehydrated Castor Oil, Heptanoic, Hydroxystearic, Linoleic — Octadecadienoic 9-11 Acid, Ricinoleic—P-10, Undecylenic, Undecylic)	
Acid Recovery Plants and Equipment	A2 A4
Agitators (Homogeneously Bonded Lead Linings)	A2 A4
Acid Stills	A2 A4
Alcohol, n-heptyl	B2
Alcoholysis Catalyst	B2
Aldehyde C-7 (Heptaldehyde)	B2
Alloys:	
Aluminum Base	A1a A4
Lead Base	A1 A1a A4
Tin Base	A1 A1a A4
Titanium Base	A12
Zinc Base	A1 A1a A4
Zirconium Base	A12
Brazing	A1 A1a A4 A6
Body Pattern	A1 A1a A4
Die Metal—Lead	A1 A1a A4
Die Metal—Zinc	A1 A1a A4
Ferro-Uranium	A9
Foundry—Titanium	A11
(“Carbortam”, Ferro-titanium, High Carbon Ferro-carbon, Medium Carbon Ferro-carbon, Low Silicon 40% Low Carbon, Low Aluminum 40% Low Carbon, Manganese-titanium, Nickel-titanium, Regular 40% Low Carbon, Regular 25% Low Carbon, Silico-titanium, Titanium Carbide, Titanium Disilicate, Titanium Hydride)	
Foundry—Zirconium	A11
(Disilicide, Ferro-zirconium, Zirconium Aluminum, Ferro-zirconium Boron, Hydride—Commercial and Reactor Grade, Magnesium Master Alloys)	
Fusible	A1 A1a A4
Gold	A6
Iridium	A6
Lead Coatings	A1 A1a A4
Jewelers' Metal	A1 A1a A4 A6
Osmium	A6
Platinum	A6
Ruthenium	A6
Silver	A6
Thorium	A9

Uranium	A9
(Aluminum-clad Reactor Fuel Elements, Molybdenum and Uranium Base, Zirconium and Uranium Base)	
Alumina Refractories	D4
Aluminum Extrusions	A1b A5
Aluminum Rod, Bar, Plate, Sheet	A1b
Aluminum Structurals	A1b
Aluminum Tooling Plate	A1b
Amides, Fatty	B2
(Hydroxystearamides, Ricinoleamides)	
Anchors, Masonry	A1 A1a A4
Angles, Lead	A1 A1a A4
Anodes:	
Lead, “Nalco” Metal, Solder or Tin	A1 A1a A4
Uranium	A9
Zinc	A1 A1a A4
Antimonial Lead	A1 A1a A4 A8
Antimony	A1 A1a A4
Antimony Oxide	B1 B5
(Ceramic & Pigment Grades)	
Antimony Silico Oxide	B1 B3a
Armature Bearings	A4 A7
Assembled Components	A5
(Utilizing Die Castings and Purchased Parts)	
Autoclaves (Homogeneously Bonded Lead Linings)	A1 A1a A2 A4

B

Babbitts (also see Bearing Metals)	A1 A1a A4 A7
Barium Compounds:	
Sulfate	B4 D1
Stannate	}
Titanate	
Zirconate	
Zirconium Silicate	
Barytes	B3a B4 D1
Basic Carbonate White Lead	B1
Basic Lead Silico Chromate	B1 B3a
Basic Silicate White Lead	B1 B3a
Basket Liners (Paper Mill Equipment)	A7
Battery Grid Metal	A1 A1a A4 A8
(Antimonial Lead, Arsenical, Calcium Lead)	
Battery Oxides	A4 B1 B5
Battery Separators	B1 D5

Battery Tape	A1 A1a A4
Bearing Metals:	
AAR Journal	A1 A1a A7
"Dutch Boy" and "Hoyt" Brands	A1 A1a A4
To Specification	A1 A1a A4 A7
Bearings:	
Armature	A4 A7
Bronze (Finished or Rough), Bronze Backed, (Babbitt Lined), Connecting Rod, Crank- shaft, Engine, Journal	A3 A4 A7
Journal and Motor Support (Locomotive)	A7
Steel Back (with Various Linings)	A3 A4
Steel Back (Bronze or Copper-lead Lined)	A3 A7
Thrust (Bronze)	A4 A7
Bearing Seals (Babbitt, Bronze, Aluminum or Steel)	A3 A7
Bearing Tinning Compound	A1 A1a A4
Bends	A1 A1a A4
(Flanged or Reducing; Chemical, Common or Hard Lead and Lead-lined)	
Bends and Ferrules, Combination	A1 A1a A4
Bends and Nipples, Combination	
Lead and Brass	A1 A1a A4
"Bentone" Products	B1 B3a D1
Bentonite	D1
Bibbs and Cocks	A1 A1a A4
(Hard Lead and Lead-lined)	
Bicarbonate of Soda	D1
Bisilicate (Lead Silicate Frit)	B1 B3a B5
Bismuth	A1 A1a A4
Blanks, for Collapsible Tubes	A1 A1a A4
Block Tin Pipe	A1 A1a A4
Body Pattern Alloys	A1 A1a A4
Boiler Plates, Zinc	A4
Bolts (Carriage, Hanger or Stove)	A10
Boules, Rutile Titania and Strontium Titanate	D7
Brass or Bronze Bars; Cored, Centrifugal Cast	A3 A4
Brazing Alloys	A1 A1a A4 A6
Brick, Lead (Radiation Shielding)	A1 A1a A4
Brick, Refractory	D4 D6
Brick, Depleted Uranium for Gamma Shields	A9
Britannia Metal	A1 A1a A4
Bullet-core Metal and Wire	A1 A1a A4
Burning Bar (Lead—Various Alloy Compositions)	A1 A1a A4
Bushings	A3 A4 A7
(Bronze, Aluminum, Steel or Bronze Backed, with Various Linings)	

C

Cadmium Sheet	A6
Cadmium (Standard Forms)	A1 A1a A4
Calcium Carbonate (Whiting)	B1 B3a B4
Calcium Chloride	D1
Calcium Compounds	B7
(Stannate, Titanate, Zirconate, Zirconium Silicate)	
Calcium Lead	A1 A1a A4
Calcium Ricinoleate	B2
Calking Lead	A1 A1a A4
Calking Tools (for Anchoring Devices)	A1 A1a A4
Cames, Lead (Glaziers Lead)	A1 A1a A4
Carbides (Titanium and Zirconium)	A11
Carbides (Uranium and Thorium)	A9
Cans, Steel (Kerosene Type Utility)	D3
Casket Trimming Metal	A1 A1a A4
Casks, Fuel Element, (Nuclear):	
Depleted Uranium	A9
Lead	A1 A1a A4
Castables, Refractory	D4 D6
Castings, Non-ferrous General Industrial	
(Rough and Finished)	A1 A1a A3 A4 A5 A7 A9 A12
Castor Meal (Pomace)	B2
Castor Oils	B2
(Refined (USP Medicinal, Industrial and Technical Grades); Blown (Oxidized); De- hydrated; Expoxidized; Ethoxylated; Es- terified; Gelled; Hydrogenated; Mineral Oil Soluble; Polymerized; Saponified; Water-soluble)	
Castor Oil Derivatives	B2
(Fatty Acids, Alcohols, Aldehydes, Am- ides, Esters and Organic Salts; Anti-sag Agents; Anti-tack Agents; Conjugated Drying Oils; Defoamers; Emulsifiers; Hy- draulic Fluid Bases; Lubricant Additives; Pigment Suspension Agents; Ester- and Epoxy-type Plasticizers; Surface-active Agents; Synthetic Waxes; Thixotropic Agents; Urethane Prepolymers and Polyols)	
Caustic Soda	D1
Cements	D4 D6
Air Setting, Heat Setting, Refractory	D4
Alumina	D4
Mullite	D4
Zircon	D4
Zirconium Oxide	D4 D6

Centerpin Wear Plates	A7
Centrifugal Cast Cored Brass or Bronze Bars	A3 A4
Centrifuge Rental Service	D1
Ceramic Rutile	B7
Ceramic Grade Titanium Dioxide	B3 B6
Chemical Lead Products	A1 A1a A4
"Cinch" Anchors	A1 A1a A4
Coatings, for Paper	C1
Cocks (Hard Lead and Lead-Lined)	A1 A1a A4
Cocks and Valves, Brass	A7
Coils:	
Block Tin Pipe, Lead and Lead Alloy, Lead-covered, "Nalco", Specially Built (Various Compositions)	A1 A1a A2 A4
Uranium Shielded	A9
Comprehensive Irradiated Fuels Service	A9
Computer Room Floors	D2
Concentrates:	
Copper	A4
Uranium	A9
Concentrators, Acid	A2 A4
Condensing Systems (Acid Recovery)	A2 A4
Connecting Rod Bearings (Bronze)	A3 A4 A7
Control Rods (Nuclear Reactor)	A9
(Cadmium, Boron, Boron Carbide, Haf- nium, and Special Alloys)	
Coolers and Crystallizers, Vacuum (Acid Recovery Systems)	A2 A4
Copperas (Ferrous Sulphate)	D7
Cored Brass or Bronze Bars, Centrifugal Cast	A3 A4
Corrosion Inhibitors	D1
Counterweights, Lead	A1 A1a A4
Uranium and Uranium Alloy	A9
Crosshead Metal (Steam Locomotive)	A4 A7
Crucibles:	
Copper	A9
Graphite	A9
Zirconium	A11
Zircon, Mullite, Alumina, Zirconia	D4 D6
Crystals (Titanium and Other Compounds)	D7

D

Deflocculants	D1
Defoamers	B2
Degreasers (for Machinery and Equipment)	D1
Demulsifiers	D1
Dental Precious Metals	A6
Diatomaceous Material ("Lorite")	B1 B3a B4
Dibasic Lead Phosphite	B1 B3a

Die Castings (Rough or Finished to Specifications):

Aluminum Alloy	A4 A5
Copper Alloy	A5
Lead and Lead Base	A4
Magnesium Alloy	A5
Tin and Tin Base	A4
Zinc Alloy	A4 A5

Die Casting Alloys:

Lead Base	
"C.T." Metal	A1 A1a A4
Mold Metal	A1 A1a A4
Tin Base	A1 A1a A4
Zinc Base No. 3, No. 5, No. 7 "Kirksite" (Standard Forms)	A1 A1a A4

Dielectric Oil (DB Oil)

B2

Die Metal for Sheet Metal Forming Tools:

Antimonial Lead, "Kirksite"	A1 A1a A4
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Dies—Stamping and Forming:

"Kirksite" and "Nalco-Lite" (Plastic)	A1 A1a A4
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Diesel Locomotive Equipment

A4 A7

(Castings—Non-ferrous, Bearings—Jour-
nal, Traction, Motor Support, Armature
and Thrust)

Digestors (Homogeneously Bonded Lead

Linings)

A2 A4

Drier, Litharge

B1 B3a B5

Driers, (Paint)

C1

Drums (Homogeneously Bonded Lead

Linings)

A2 A4

Drums, Steel Shipping (5 gal.)

D3

Drum Traps and Accessories, Lead

A1 A1a A4

Drying Oils, Conjugated

B2

Ducts, Lead

A1 A1a A4

E

Electroplating Service

A3 A4 A5

(Tin, Lead, Silver, Brass, Nickel, Chro-
mium, Lead-Tin, Lead-Indium, etc.)

Electroplating Service

(Cadmium and Nickel)

A4 A9

Electrotype Metal (Printing Industry)

A1 A1a A4

Elevated Floors

D2

Emulsifiers

B2 D1

Emulsion Breakers

B2 D1

Enamels (Interior and Exterior)

C1

Engine Bearings (Diesel, Gas, Turbine)

A3 A4

Epoxy Plasticizers ("Estynox" Series)

B2

Esters	B2
(Acetyl Ricinoleate, Acetoxystearate, Epoxy Stearate, Hydroxystearate, Ricino- leate, Undecylenate)	
Evaporators (Acid Recovery Equipment)	A2 A4
Extender Pigments	B1 B3a B4
Extractors (Homogeneously Bonded Lead Linings)	A2 A4
Extrusions (Impact)	A5

F

Fabrication Services — Metals:

Non-Ferrous	A1 A1a A2 A4 A5 A7
Titanium Metal	A12
Uranium-Thorium-Non-ferrous	A9
(Melting and Casting Vacuum Induction, Consumable Electrode, Skull Casting, Rolling and Pressing, Swaging and Machining)	
Feeder Parts (Refractory Products)	D4
Ferro-titanium Alloys	A11
Ferro-uranium and Ferro-uranium Alloys	A9
Ferro-zirconium Alloys	A11
Ferrous Sulphate (Copperas)	D7
Ferrules (Brass, Lead and Combination)	A1 A1a A4
Ferrules and Bends, Combination	A1 A1a A4
Filling Service, Lead (for Radiation Shielding)	A1 A1a A4
Fittings (Homogeneously Bonded Lead-lined)	A1 A1a A2 A4
Fittings, (Flanged or Screwed)	A1 A1a A4
(Lead, Brass or Bronze, Tin and Various Linings)	
Fittings, Plumbers Lead Pipe	A1 A1a A4
Flame Spray Powders	A4 B7
Flanges (Roof, Closet Floor, Pipe)	A1 A1a A4
Flashing, Roof (Lead)	A1 A1a A4
Flash Coolers (Acid Recovery Equipment)	A2 A4
Flocculants	D1
Floors, Elevated, for Computer Rooms	D2
Flux, Brazing	A1 A1a A4 A6
Flux, Soldering	A1 A1a A4
Flux, Type Metal	A1 A1a A4
Foaming and Defoaming Agents	D1
Forging Billets	A12
(Titanium and Zirconium Metals)	
Forgings:	
Aluminum Alloy	A4 A5
Brass	A4

Painted or Anodized (Aluminum)	A5
Uranium Alloy	A9
Foundry Supplies	D1
("National" Western Bentonite, "Petro Bond", "Bentone" 34, "Petro Bond" Oil, "Petro Bond" Catalyst P-1)	
Zirconite Sand, Flour, Wash	D6
Frits, Lead Silicate	B1 B3a B5
(Bisilicate, Monosilicate or Tribasic)	
Fuel Elements (Nuclear Reactor)	A9
(Normal, Enriched Uranium; Aluminum, Ceramic, Cermets, Graphite, Powder Compacts, Stainless Steel, Zirconium)	
Fuel Element Reprocessing Services	A9
Fume Absorption Systems (Acid Recovery)	A2 A4
Fungicides	B2
(Undecylenic Acid, Sodium Undecyle- nate, Zinc Undecylenate)	
Fuse Wire (Special Alloy)	A1 A1a A4
Fusible Alloys	A1 A1a A4

G

Galvanizers Silver Metal	A4
Gas Detectors (Oilwell, Marine, Industrial)	D1
Gaskets and Washers	A1 A1a A4
(Lead, Tin and Various Alloys)	
Gelling (Suspension) Agents:	
"Aquagel"	D1
"Baragel" and "Baragel" 24	D1 B3a
"Bentone" 11, 18c, 27, 34 and 38	B1 B3a D1
"Ben-A-Gel" and "Ben-A-Gel" EW	B1 B3a D1
"Geltone"	D1
"M P A"	B2
"Petrotone"	D1
"Quik-gel"	D1
"Thixcin"	B2
"Thixatrol" ST	B2
"Zeogel"	D1
Generators (Chlorine Dioxide)	A2 A4
Glaziers Lead (Came Lead)	A1 A1a A4
Gold	A6
Gold Metal, Alloys and Salts	A6
Grain, Abrasive	B7
Graphite	A9
(Nuclear Reactor Fuel Elements, Cruci- bles, Molds, Compacts — Oxides and Metals)	
Gypsum	D1
Gyro Rotors, Uranium	A9

H

Hammer Metal (Lead Alloy).....	A1 A1a A4
Hammers (Babbitt, Copper, Lead).....	A1 A1a A4 A7
Hardening (Tempering) Lead.....	A1 A1a A4
Heat Exchangers (Acid Recovery).....	A2 A4
Heptaldehyde.....	B2
Heptanoic Acid.....	B2
Heptyl Alcohol.....	B2
Homogeneously Bonded Lead-lined Equipment.....	A1 A1a A2 A4
(Agitators, Autoclaves, Digestors, Drums, Extractors, Fittings, Mixing Equipment, Pipe, Tanks, Valves)	
Hydraulic Fluids, Oil for.....	B2
Hydroxystearic Acids and Esters.....	B2

I

Identification Plates.....	A7
(Aluminum, Brass or Bronze)	
Impact Extrusions.....	A5
Ilmenite (Granular and Milled).....	B7
Impellers (Lead- or Tin-covered).....	A1 A1a A4
Impression Lead (Printing Industry).....	A1 A1a A4
Industrial Finishes and Coatings.....	C1
(Construction, Maintenance, Marine, Paper and Railroad Industries)	
Intertype Metal (Printing Industry).....	A1 A1a A4
Iridium Metal, Alloys and Salts.....	A6
Iron Ore (Magnetite and Magnetite Sinter)...	D7
Iron Sulphate (Copperas).....	D7
Irons, Soldering, Electric.....	A1 A4

J

Jewelers' Metal.....	A1 A1a A4 A6
Journal Bearings (Car and Locomotive).....	A4 A7
Journal Bearing Metal, AAR.....	A7
Journal Stops (Freight Cars).....	A7

K

Keels (Lead or Depleted Uranium).....	A1a A4 A7 A9
Kegs, Steel.....	D3
Kettlecoater.....	A1 A1a A4
"KirkSITE" A Die Metal.....	A1 A1a A4

L

Laboratory Traps (Lead or Lead Alloy).....	A1 A1a A4
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Lead (All Shapes, Forms, and Types).....	A1 A1a A4
Lead Base Chemicals.....	B1 B3a
Lead Oxides.....	A4 B1 B3a B5
Lead Silicate Frit.....	B1 B3a B5
(Bisilicate, Monosilicate and Tribasic)	
Lead Silico Titanate.....	B1 B3a
Lead Stannates, Titanates, Zirconates.....	B7
Lime, Hydrated.....	D1
Linotype Metal (Printing Industry).....	A1 A1a A4
Litharge (Fume & Furnace).....	A4 B1 B3a B5
(Colormakers, Drier, Enamellers, Insecti- cide, Ceramists, Lead Grease, Oil Refiners, Rubbermakers, Special Types, Storage Battery, Varnishmakers)	
Lubricator Pads (Journal Box).....	A7
Lubricant Additives.....	B2 B3a D1
Lubricant, Plastics Processing.....	B2
Ludlow Metal (Printing Industry).....	A1 A1a A4

M

Machine Parts (Precision).....	A3 A5 A9
Machine Screws.....	A10
Machine Shop Facilities:	
Railroad (Complete Non-ferrous).....	A3 A4 A7
Classified Facilities (Uranium).....	A9
Heavy Duty Metal Machining.....	A5 A7
Magnesium Compounds.....	B7
(Stannates, Titanates, Zirconates)	
Magnetite and Magnetite Sinter (Iron Ore)...	D7
Maintenance Paints.....	C1
Marine Finishes and Primers.....	C1
(Heavy Duty and Pleasurecraft)	
Mercury.....	A6
Metal Powders (Lead, Zinc, Brass, Etc.)....	A4
Metal Finishing (Prototype, Handwork).....	A5
Medicinal Castor Oil (AA—USP).....	B2
Mold Metal (Lead Base Casting Alloy).....	A1 A1a A4 A8
Monosilicate (Lead Silicate Frit).....	B1 B3a B5
Monotype Metal (Printing Industry).....	A1 A1a A4
Mortar, Refractory.....	D4
Motor Support Bearings (Locomotive).....	A4 A7
Mud Centrifuge (Oil Well Industry).....	D1
Mud Testing Equipment (Oil Well Industry)...	D1
Mud Thinners (Oil Well Industry).....	D1
Mullite, Refractory.....	D4
Music Plates, Lead Alloy.....	A1 A1a A4

N

Needle Metal (Filling Metal, Various Alloys) . . .	A1 A1a A4
Nipples, Lead	A1 A1a A4
Nipples and Bends (Combination Lead and Brass)	A1 A1a A4
Nipples, Soldering (Lead and Brass)	A1 A1a A4
Nuclear Reactors, Products for	A9
(Fuel Elements, Control Rods, Comprehensive Irradiated Fuels Service)	
Nuclear Shielding Aggregates	D1
Nuts, Machine Screw	A10

O

Oil Well Drilling Mud Supplies and Services . . .	D1
(Chemicals, Emulsifiers, Foaming and Defoaming Agents, Flocculants, Gelling Agents, Lubricants, Mud Thinners, Pipeline Coating Materials, Well Logging Services, Testing Equipment)	
Opacifiers, Ceramic	B7
(Titanium and Zirconium Compounds)	
Titanium Dioxide	B3 B6
Orange Mineral	B1 B3a B5
Ordnance Parts, Die Castings	A5
Ordnance Parts, Uranium	A9
(Heavy Density Ballistics Parts — Non-nuclear)	
Organ Pipe Metal	A1 A1a A4
Ornaments	A1 A1a A4
("KirkSITE", Lead and Lead Alloy, Tin and Tin Alloy)	
Osmium Metal, Alloys and Salts	A6
Oxides:	
Antimony	B1 B5
Lead	A4 B1 B3a B4 B5
Platinum	A6
Silver	A6
Titanium	B3 B6
Heavy Grade Titanium Oxide	B7
Zirconium	B7

P

Pads, Anti-vibration	A4
Pails, Steel	D3
Paints (for All Purposes)	C1
Palladium Metal, Alloys and Salts	A6
Paper Coatings (Clear Lacquer)	C1
Paper Mill Equipment (Bronze)	A4

Paraffin Solvents	D1
Patches, Refractory	D4
Pearlescent Pigment	B1 B3a
Perfume Intermediates	B2
Permanent Mold Castings	A5
Petroleum Industry Chemicals	D1
(Demulsifiers, Paraffin Solvents, Scale Prevention, Corrosion Inhibitors, Water Treating, Degreasers)	
Phosphor Copper	A4
Phosphor Tin	A1 A1a A4
Photographic Silver Nitrate	B8
Piano Key Leads	A1 A1a A4
Pig Lead	A1 A1a A4 A8
Pigments:	
Antimony Oxide	B1 B5
Antimony Silico Oxide	B1 B3a
Barium Sulphate	B3a B4
Barytes	B3a B4
Basic Carbonate White Lead	B1
Basic Lead Silico Chromate	B1 B3a
Basic Silicate White Lead	B1 B3a
Calcium Carbonate	B1 B3a B4
Dibasic Lead Phosphite	B1 B3a
Lead Silico Titanate	B1 B3a
Litharge (see listing under "Litharge") . . .	B1 B3a B5
Normal Lead Silico Chromate	B1 B3a
Orange Mineral	B1 B3a B5
Pearlescent	B1 B3a
Red Lead (see listing under "Red Lead") . .	B1 B3a B5
Titanium (see listing under "Titanium Pigments")	B3 B6
Pinking Blocks	A1
Pipe	A1 A1a A2 A4
(Lead and Lead-lined—Antimonial, Chemical, Common, "Nalco" Metal, Special Alloys, Tellurium, Tin-lined, Lead and Carbon Lined)	
Pipe and Fittings (Lead-lined):	
"United" Tubond	A1 A1a A2 A4
Lead and Carbon-lined	A2
Pipe, Tin	A1 A1a A4
Pipeline Coating Material	D1
Plasticizers for Lacquer, Rubber, Vinyls . . .	B1 B2
Plate Mounting System (Printing Industry) . .	A1 A1a
Plated Parts (Industrial Coatings)	A3 A5
Plates, Lead	A1 A1a A4
Plates, Zinc Boiler	A4

Plating Equipment (Homogeneously Bonded Lead Linings)	A1 A1a A4
Platinum	A6
Plug Cocks (Hard Lead and Lead-lined)	A1 A1a A4
Plugs, (Shielding—Depleted Uranium)	A9
Plumbers Lead Products	A1 A1a A4
Polyols (for Urethanes)	B2
Polyvinyl Chloride Stabilizers (See Stabilizers)	B1 B2 B3a
Precious Metals (For Jewelers, Dental Labs, Electronic Industry, Pharmaceutical Industry)	A6
Pre-polymers, Urethane	B2
Printers Metals (see "Type Metal" for listing)	A1 A1a A4
Pumps, Centrifugal, Acid Resistant	A1 A1a A4
Putty Powder	B3a B4

R

Radiation Shielding	A1 A1a A4 A9
Radiographic Inspection Service	A1 A1a A9
Railroad Equipment (Bearings, Lubricator Pads, etc.)	A3 A7
Ramming Mixes	B7 D4
Red Lead (Dry Pigment) (Enamellers, Glassmakers, Paint Grinders, Rubbermakers, Storage Battery, Varnishmakers)	A4 B1 B3a B5
Red Lead in Oil	C1
Red Lead Primers (Ready-mixed)	C1
Refractories	D4 D6
Refractory Alloys (Melting & Casting) (Titanium, Zirconium, Uranium, etc.)	A9
Refractory Products:	
Bricks (Standard Sizes)	B7 D4
Castables	D4
Cements	B7 D4
Feeder Parts (Glass Plants)	D4
Kiln Furniture	D4
Nuclear	
Graphite, Liners, Molds, Crucibles	A9
Patches	D4
Plastics	D4
Ramming Mixes	B7 D4
Special Shapes	B7 D4
Replacement Metal (Printing Industry)	A1 A1a A4

Reprocessing Service, Fuel Element	A9
Rhodium Metals, Alloys	A6
Ricinoleamides	B2
Ricinoleate Esters and Soaps	B2
Ricinoleic Acid	B2
Rings, Babbitt	A1 A1a A4 A7
Roof Drains, Flanges, Flashing, Washers (Lead)	A1 A1a A4
Rubber Processing Aids	B2
Ruthenium Metal, Alloys	A6
Rutile:	
Ceramic, Frit, Granular, Milled	B7
Rutile Titania Boules	D7

S

Scale Prevention Chemicals	D1
Screens, Perforated Lead Plate	A4
Screws	A10
(Dowel, Drive — Wood and Type U, Lag, Machine, Speaker, Tapping, Thread-Cutting, Wood Knob and Wood)	
Screws, Brass Trap	A1 A1a A4
Scrubbers (Homogeneously Bonded Lead Linings)	A2 A4
Seismic Shot Hole (Oil Well Drilling Mud Material)	D1
Separators (Homogeneously Bonded Lead Linings)	A2 A4
Separators, Storage Battery	B1 D5
Sheet, Cadmium	A6
Sheet, Gold	A6
Sheet, Lead (Antimonial, Chemical, Common, Crawl-proof, "Nalco" Metal, Special Alloys, Tellurium-antimonial)	A1 A1a A4
Sheet, Palladium	A6
Sheet, Platinum	A6
Sheet, Silver	A6
Sheet, Silver Chloride	A6
Sheet, Titanium and Zirconium Metals	A12
Sheets, Steel (Homogeneously Bonded Lead)	A2 A4
Shielding, Radiation, Lead and Depleted Uranium	A1 A1a A4 A9
Shielding, Radiation, Barytes Aggregate	D1

Shipping Casks—(Radioactive Materials)
 Lead-lined A1 A1a A4
 Uranium-lined (Depleted) A9
Shipping Containers, Steel
 (Cans, Drums and Pails) D3
Shot, Lead (All Sizes for All Purposes) A1 A1a A4
Shower Pans, Lead A1 A1a A4
Silver A6
Silver Brazing Alloys A1 A1a A4 A6
Silver Nitrate (Photographic Industry) B8
Silver Chloride B8
Silver Salts B8
Sink and Drain Traps (Lead and Lead Alloy) A1 A1a A4
Sintered Magnetite D7
Site Environmental Systems (for Computer Rooms) D2
Sleeving, Lead A1 A1a A4
Slush Metal A1 A1a A4
Soaps, Castor Oil B2
Sodium Compounds:
 Carbonate, Chromate, Humate D1
 Ricinoleate B2
 Undecylenate B2
 Zirconium Sulphate and Titanate B7
Soil Pipe, Lead-lined A1 A1a A4
Solder (Various Compositions) A1 A1a A4
 (Aluminum, Auto Body, Bars, Block or Slab, Cake, Capping Bar, Cored Wire — Acid, Rosin, Other Flux Compositions, Drop, Ingot, Low-melting, Meter Bar, Paint or Paste, Pellets, Pig, Pre-forms, Pulverized, Radiator Bar, Ribbon or Tape, Sheet, Silver Content, Stainless Steel, Tinnens Bar, Triangular Bar, Wiping, Wire)
Solders (Precious Metal) A6
 (Gold, Silver, Platinum)
Soldering Flux A1 A1a A4
Soldering Irons, Electric A1 A4
Soldering Paste (Flux) A1 A1a A4
Soldering Nipples (Lead and Brass Comb.) A1 A1a A4
Sorts Caster Metal (Printing Industry) A1 A1a A4
Soya Oil, Epoxidized B2
Spacer Blocks, Lead A1 A1a A4
Spectrochemical Standards A1a
Spelter (Prime Western Zinc) A1 A1a A4
Stabilizers (Polyvinyl Chloride):
 "Barosil" (Complex Barium Silicate) B1 B3a

Calcium Ricinoleate B2
 Epoxy Esters and Oils B2
 Barium-cadmium Organic
 Barium-sodium Organic
 Dibasic Lead Stearate
 Dibasic Lead Phosphite
 Dibasic Lead Phthalate
 Normal Lead Stearate
 Lead Chlorosilicate Complex
 Lead Chlorophthalosilicate
 Tetrabasic Lead Fumarate
 Normal Lead Salicylate
 Co-precipitates of Lead Orthosilicate and Silica Gel
 Metal Salt-organic Complexes
 Tribasic Lead Sulfate
 Basic Lead Silicate Sulfate
 Tribasic Lead Maleate
 Stainless Steel Plate, Bar, Rod, Wire, Billets A1b
 Stainless Steel Sheet A1b
 Stains (Oilwood and Varnish) C1
Stampings, Metal (Various Compositions) A1 A1a A4 A5 A9
Stannates B7
 (Barium, Calcium, Cerium, Lead, Magnesium, Strontium)
Stereotype Metal (Printing Industry) A1 A1a A4
Stove Bolts A10
Strontium Titanate Boules D7
Studs, (Continuous Thread) A10
Surfactants, Non-ionic B2
Surfactants, Oil Well Drilling and Production Treating D1
Suspension Agents B1 B2 B3a B7 D1

T

Tanks and Tank Connections A2 A4
 (Homogeneously Bonded Lead Linings)
Tempering (Hardening) Lead, Refined A1 A1a A4
Testing Equipment (Drilling Mud) D1
Thickening (Gelling) Agents (see "Gelling Agents" for complete listing)
Thinners, (Oil Well Drilling Industry) D1
Thorium A9
 (Metal, Alloys, Castings and Oxides)
Thixotropic Agents B1 B2 B3a

Tin A1 A1a A4
(Anodes, Bar, Castings, Gaskets and Washers, Ingot, Ornaments, Pig, Pipe—Block Tin, Pulverized, Ribbon or Tape, Sheet, Wire)

Tinning Compound A1 A1a A4

Tinting Colors C1

Titanates B7 D7
(Barium, Calcium, Lead, Lead Titanate-Zirconate, Magnesium, Potassium, Strontium, Bismuth, Cerium, Cobalt, Copper, Nickel, Zinc)

Titanium Alloys A11

Titanium Chemicals D7

Titanium Metal A12
Commercially Pure and Alloy Grades
(Bars, Extruded Shapes, Foil, Plates, Powder, Rod, Rolled Shapes, Sponge, Strip, Tubing, Wire)

Titanium Pigments B3 B6
(Titanium Dioxide—Rutile, Anatase and Non-pigmentary, Titanium Calcium)

Titanium Sulphate Cake B3a B6

Titanium Tetrachloride A12 D7

Tooling Plate, Aluminum and Zinc A1b

Tote Boxes A5

Transportation Service (Fuel Elements) A9

Traps (Lead or Lead Alloy) A1 A1a A4
Drum, Laboratory, Non-siphon, Sink and Drain

Tribasic Lead Silicate B5

Tube Blanks, Collapsible A1 A1a A4
(Alloy, Alloy Coated, Antimonial Lead, Lead, Tin or Tin Coated)

Tubes (Brass, Copper or Steel) A1 A1a A4
(Lead-covered or Lead-lined)

Tubing A1 A1a A4
(Lead—Antimonial, Chemical, Tellurium and Common, "Nalco" Metal, Tin or Tin-lined)
Titanium Metal (Seamless or Welded) A12
Zirconium Metal A12

Type Metal A1 A1a A4
(Combination Metal, Electrotpe Metal, Impression Lead, Intertype Metal, Linotype Metal, Ludlow Metal, Monotype Metal, Replacement Metal, Rolled Electrotpe Metal, Sorts Caster, Stereotype Metal, Toning Metal, Typograph)

U

Undecylenic Acid and Salts B2

Uranium Metal and Alloys (Depleted) A9
(Processing and Fabricating Shielding, Counterweights, Gyro-wheels, Balance Weights, Plugs)

Uranium Oxides A9

Uranium Wire (Depleted) A9

V

Valves (Corrosion Resistant) Industrial:
Hard Lead and Lead-lined A1 A1a A2 A4
Lead and Carbon Lined A2

Varnishes (All Types) C1
(Exterior, Interior, Industrial, Marine)

Vessels, Uranium-lined (Depleted) A9
(Radiation Shielding)

W

Washers and Gaskets A1 A1a A4
(Alloy, Lead and Tin)

Washers, Lead Roofing A1 A1a A4

Water Well Drilling and Mud Materials D1

Water Treating Chemicals D1
(Corrosion Inhibitors, Surface Tension, Emulsion Breakers, Scale Controls, Paraffin Control, Microbiological Control)

Waxes, Synthetic B2

Weights, Lead (Various Shapes and Forms) A1 A1a A4

Welding Rod (Burning Bar) A1 A1a A4
("Kirk-site", Lead and Lead Alloy)

Welding Rod Coating Ingredients B7
(Manganese Titanium, Nickel Titanium, Magnesium Titanate, Low Carbon Ferro-titanium, Calcium Titanate, Potassium Titanate, Sodium Titanate, Ilmenite, Rutile)

Welding Grade Titanium Dioxide B3 B6

Well Logging Service D1

Wetting Agents B2

White Lead, Basic Carbonate B1

White Lead, Basic Silicate B1 B3a

White Lead in Oil C1

White Lead Paint (Ready-Mixed) C1

Whiting (Calcium Carbonate) B1 B3a B4

Wiping Solder (Various Compositions) A1 A1a A4

Wire	A1 A1a A4
Babbitt, "Kirkstite", Lead and Lead Alloy, Lead-covered, "Nalco" Metal, Solder-covered, Special Alloy, Tellurium Lead, Tin and Tin Alloy, Zinc Alloy)	
Titanium Metal	A12
Uranium Metal (Depleted)	A9
Wood Fillers	C1
Wood Screws	A10
Wool, Lead	A1 A1a A4
Wrist-pin Bushings	A3 A4

X

X-ray Shielding	A1 A1a A4
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Z

Zinc	A1 A1a A4
(High Grade, Prime Western — Spelter, Special High Grade)	
Zinc Alloys	A1 A1a A4
Zinc Tooling Plate	A1b
Zircon	B7
Zircon Products	B7 D4
(Cements, Mortar Mix, Ramming and Utility Mixes, Refractories)	

Zirconates	B7
(Alkaline Earth—"Ticon" Products, Bismuth, Lead, Zinc, Cadmium, Cerium)	

Zirconites (Sands, Flours and Washes)	B7
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Zirconium Chemicals	B7
(Chlorides:	

Zirconium Oxychloride, Zirconium Tetrachloride, Zirconyl Hydroxychloride Solution

Phosphates:

Zirconium Phosphate, Zirconium Pyrophosphate

Nitrates:

Zirconyl Nitrate Solution, Zirconyl Hydroxynitrate Solution

Sulphates:

Sodium Zirconyl—Tech., Basic Cake Acetates, Hydrates, Glycolates, Acetylacetonate, Carbonates, Hipurity Oxides, Low Hafnium Salts and Solutions)

Zirconium Cyanonitride	B7
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Zirconium Hydride and Powder	A11
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Zirconium Metal	A12
(Bars, Plate, Sheet, Rod, Wire and Tubing)	

Zirconium Oxide (Refractories and Cements)	B7 D4
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Zirconium Oxides	B7
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Zirconium Silicates	B7
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SALES OFFICES**Metals and Metal Products****A1 NATIONAL LEAD COMPANY—BRANCH OFFICES**

Lead in all basic forms, including pig, ingot, slab, bar, wire, pipe, sheet, wool, shot; traps and bends; calking lead; antimonial lead; radiation shielding in all forms; storage battery grid metal; babbitt metals; type metals; solder and flux; brazing alloys and flux; lead alloys; zinc alloys; pewter; block tin pipe; collapsible tube blanks; lead and lead-lined valves and fittings; masonry anchors.

(General Offices: 111 Broadway, New York 6, N.Y., Area Code 212, REctor 2-9400)

ATLANTA 9, GA. 451 Bishop St., N.W., Area Code 404, TRinity 6-7361
 BALTIMORE 3, MD. 214 W. Henrietta St., Area Code 301, PLaza 2-6900
 BOSTON 6, MASS. 800 Albany St., Area Code 617, GArrison 7-1000
 CHICAGO 8, ILL. 900 West 18th St., Area Code 312, CANal 6-3700
 CINCINNATI 11, OHIO 3670 Werk Rd., Area Code 513, 922-4100
 CLEVELAND 13, OHIO 1776 Columbus Rd., Area Code 216, PRospect 1-4060
 DALLAS 16, TEXAS 1000 Sargent Rd., Area Code 214, WHitehall 8-3521
 DENVER 4, COLO. 206 Wazee Market, Area Code 303, AMherst 6-2823
 DEPEW (nr. Buffalo) N. Y. 3241 Walden Ave., Area Code 716, NT 3-6840
 DETROIT 11, MICH. 3501 Griffin St., Area Code 313, TRinity 4-0488
 HOUSTON 1, TEXAS 1417 Hardy St., Area Code 713, FAirfax 3-1303
 OMAHA, NEBR. 7601 Dodge St., Area Code 402, 393-3024
 PERTH AMBOY, N. J. 1050 State St., Area Code 201, VALley 6-6000
 PITTSBURGH 12, PA. 1376 River Ave., Area Code 412, FAirfax 1-2335
 ST. LOUIS 1, MO. 1015 Locust St., Area Code 314, CHestnut 1-8782

A1a MORRIS P. KIRK & SON, INC.

Lead and zinc alloys for automotive, aircraft and die casting industries; antimonial lead (grid metal) and lead oxides for storage batteries; fabricated lead products for the chemical and plumbing industries; lead radiation shielding in all forms; lead oxides for the chemical and paint industries.

LOS ANGELES 23, CALIF. (Main Office) .. 2700 S. Indiana St., Area Code 213, ANGelus 2-1101
 EMERYVILLE 8, (Nr. Oakland) CALIF. 4050 Horton St., Area Code 415, OLYmpic 3-7533
 FRESNO, CALIF. 845 Topeka Ave., Area Code 209, AMherst 6-2209
 PHOENIX 20, ARIZ. 1102 W. Watkins St., Area Code 602, ALpine 8-0922
 PORTLAND 10, ORE. 5909 North West 61st Ave., Area Code 503, CAPitol 2-1956
 SALT LAKE CITY 4, UTAH 977 S. Sixth West St., Area Code 801, EMpire 4-6436
 SEATTLE 4, WASH. 3614 Airport Way, Area Code 206, MAIn 2-0975
 SPOKANE 2, WASH. East 41 Gray Ave., Area Code 509, RIverside 7-8063

A1b PIONEER ALUMINUM, INC.

Subsidiary of Morris P. Kirk & Son, Inc.

Aluminum 921T-direct chilled tooling plate; zinc tooling plate; aluminum extrusions; aluminum structurals; aluminum sheet, plate, rod, bar; stainless steel sheet, plate, bar, wire, billets.

LOS ANGELES 23, CALIF. (Main Office) 3800 E. 26th St., Area Code 213, ANGelus 3-7211
 DALLAS 25, TEXAS 6033 Berkshire Lane, Area Code 214, 363-4959
 DEARBORN, MICH. 23439 Michigan Ave., Area Code 313, LOgan 3-2708
 MARIETTA, GA. 302 Glover St., Area Code 404, 422-2110
 MINEOLA, N.Y. 288 Old Country Rd., Area Code 516, Ploneer 7-6171
 SCOTTSDALE, ARIZ. 7412 E. Bonita Dr., Area Code 602, WHitney 6-0931

A2 ACID RECOVERY DEPARTMENT, NATIONAL LEAD COMPANY

Concentrators, evaporators, crystallizers and corrosion resistant processing equipment.

NEW YORK 6, N. Y. 111 Broadway, Area Code 212, REctor 2-9400

A3 AMERICAN BEARING CORPORATION

Precision bearings, bearing seals and precision-machined parts for diesel and gas engines, aircraft engines, pumps and compressors; gear reducers. Industrial plating.

INDIANAPOLIS 7, IND. 429 S. Harding St., Area Code 317, MEIrose 2-5588

A4 THE CANADA METAL COMPANY, LTD.

Lead oxides for the storage battery, paint and chemical industries; fabricated lead products for the chemical, plumbing and construction industries; lead radiation shielding in all forms; antimonial lead (grid metal) for storage batteries; lead and zinc alloys for the die casting industry; brass and bronze products; solder and flux; babbitt metals; type metals.

TORONTO 8, ONT. (Main Office) 721 Eastern Ave., Area Code 416, HOward 5-4684
 CALGARY, ALTA. 5524 4th St., S.E., Area Code 403, ALpine 5-7901
 MONTREAL 5, QUE. 6265 Notre Dame St., East, Area Code 514, CLairval 5-3653
 VANCOUVER 2, B. C. 1428 Granville St., Area Code 604, MUtual 3-1367
 WINNIPEG, MAN. 1221 St. James St., Area Code 204, SPruce 4-7455

A5 DOEHLER-JARVIS DIVISION, NATIONAL LEAD COMPANY

Aluminum, zinc, magnesium and copper alloy die castings; all finishing methods—buffing, anodizing, plating, painting, chemical-treating; sub-assemblies; aluminum forgings and stampings; impact extrusions.

TOLEDO 1, OHIO (Main Office) 1945 Smead Ave., Area Code 419, 244-9521
 TOLEDO 1, OHIO (Toledo Plant #1) 1945 Smead Ave., Area Code 419, 244-9521
 TOLEDO 12, OHIO (Toledo Plant #2) Dixie Hgwy. & Willamont Rd., Area Code 419, 475-4651
 GRAND RAPIDS 2, MICH. 525 Cottage Grove St., S.E., Area Code 616, 245-1191
 POTTSTOWN, PA. Apple & Washington Sts., Area Code 215, 323-1100
 BATAVIA, N.Y. Robertson St., Area Code 716, 343-3000

In Canada, the die casting units of National Lead Company are:

BARBER DIE CASTING CO., LTD. Hamilton, Ontario, Area Code 416, JACkson 7-9178
 LAKESHORE DIE CASTING, LTD. Oakville, Ontario, Area Code 416, WAInut 4-9874

A6 GOLDSMITH BROS. DIVISION, NATIONAL LEAD COMPANY

Silver nitrate for photographic film; silver chloride for mirrors and batteries; gold, silver and platinum group metals for jewelry, dental applications and electronic equipment; mercury for instrument manufacturer and pharmaceutical uses; gold and silver plating salts; silver brazing alloys and brazing fluxes.

CHICAGO 8, ILL. 900 W. 18th St., Area Code 312, CANal 6-3700

SECTION

A

A7

MAGNUS METAL CORPORATION

Railroad freight and passenger car journal bearings and journal stops; diesel engine bearings; railroad and industrial brass and bronze castings.

NEW YORK 6, N. Y. (Main Office) 111 Broadway, Area Code 212, REctor 2-9400
CHICAGO 4, ILL. 80 E. Jackson Blvd., Area Code 312, HArrison 7-7700

A8

MASTER METALS, INC.

Soft pig lead and lead alloys for storage batteries and other purposes.

CLEVELAND 13, OHIO 2850 W. Third St., Area Code 216, MAin 1-2361

A9

NUCLEAR METALS DIVISION, NATIONAL LEAD COMPANY

Uranium and thorium feed materials and fuel elements for power and research reactors; fabricated uranium (depleted) products including gamma shieldments; nuclear research and development services. Comprehensive Irradiated Fuels Service.

NEW YORK 6, N. Y. 111 Broadway, Area Code 212, REctor 2-9400

A10

SOUTHERN SCREW COMPANY

Screws and other metal fasteners for appliance, automotive, furniture, marine products and other industries.

STATESVILLE, N.C. 28677 (Main Office) P.O. Box 1360, Area Code 704, 873-7211
CHICAGO, ILL. 60646 4240 W. Peterson Ave., Area Code 312, 286-0912
DALLAS, TEXAS 75207 2119 Farrington St., Area Code 214, 748-8241
LOS ANGELES, CALIF. 90022 6465 Corvette St., Area Code 213, 723-4881
NORTH BERGEN, N.J. 07047 4100 Dell Ave., Area Code (N.J.) 201, 864-4330
Area Code (N.Y.) 212, 564-4497

A11

**TITANIUM ALLOY MANUFACTURING DIVISION,
NATIONAL LEAD COMPANY**

Zirconium oxide and silicates for the ceramic industry; titanates and zirconates for the electronics industry; titanium and zirconium alloys, chemicals and compounds for optical goods polishing, leather tanning, pharmaceuticals, catalytic reagents and welding rod compounds.

NEW YORK 6, N. Y. 111 Broadway, Area Code 212, REctor 2-9400

A12

TITANIUM METALS CORPORATION OF AMERICA

Titanium metal sponge, ingot and mill products for aircraft, missile, space vehicle and chemical processing industries. Zirconium sheet, plate, bar, rod, wire and tubing.

NEW YORK 7, N.Y. (Main Office) 233 Broadway, Area Code 212, WOrth 4-7620
CLEVELAND 20, OHIO 11955 Shaker Blvd., Area Code 216, 795-1588
DALLAS 35, TEXAS Exchange Bank Bldg., Area Code 214, FLEetwood 7-4353
LOS ANGELES 22, CALIF. 6438 Corvette St., Area Code 213, RAYmond 3-8567
NEW YORK 20, N.Y. 45 Rockefeller Plaza, Area Code 212, LT 1-3240
SKOKIE, ILL. Westmoreland Bldg., Area Code 312, 679-3820

Chemicals, Pigments and Oils

B1 NATIONAL LEAD COMPANY—BRANCH OFFICES

Antimony oxide, antimony silico oxide, basic carbonate white lead—dry and in oil, basic silicate white lead, basic lead silico chromate, normal lead silico chromate, lead silico titanate, red lead—dry and in oil, litharge, storage battery oxides, gellants, stabilizers for vinyl plastics.

(General Offices: 111 Broadway, New York 6, N.Y., Area Code 212, REctor 2-9400)

ATLANTA 9, GA. 451 Bishop St., N.W., Area Code 404, TRinity 6-7361
 BOSTON 6, MASS. 800 Albany St., Area Code 617, GArrison 7-1000
 CHICAGO 8, ILL. 900 West 18th St., Area Code 312, CAAnal 6-3700
 CINCINNATI 11, OHIO 3670 Werk Rd., Area Code 513, 922-4100
 CLEVELAND 13, OHIO 1776 Columbus Rd., Area Code 216, PRospect 1-4060
 DALLAS 16, TEXAS 1000 Sargent Rd., Area Code 214, WHitehall 8-3521
 DEPEW (nr. Buffalo) N. Y. 3241 Walden Ave., Area Code 716, NT 3-6840
 DETROIT 11, MICH. 3501 Griffin St., Area Code 313, TRinity 4-0488
 KANSAS CITY 7, MO. 1406 W. 13th St., Area Code 816, VICTor 2-0507
 LOS ANGELES 23, CALIF. 3113 E. 26th St., Area Code 213, ANgelus 3-7121
 NEW YORK 6, N.Y. 111 Broadway, Area Code 212, REctor 2-9400
 PHILADELPHIA 25, PA. 2607 E. Cumberland St., Area Code 215, GARfield 6-0600
 PITTSBURGH 12, PA. 1376 River Ave., Area Code 412, FAirfax 1-2335
 PORTLAND 10, ORE. 4322 N.W. Yeon Ave., Area Code 503, CApitol 8-0254
 ST. LOUIS 1, MO. 1015 Locust St., Area Code 314, CHestnut 1-8782
 SAN FRANCISCO 10, CALIF. 2240 24th St., Area Code 415, MIssion 7-0440
 SEATTLE 4, WASH. 1128 S.W. Spokane St., Area Code 206, MAIn 2-1950

B2 BAKER CASTOR OIL COMPANY

Castor oils (refined and modified) and their derivatives, drying oils, emulsifiers, plasticizers, surface-active agents, stabilizers, thixotropic agents, waxes for paints, coatings, resins, plastics, rubber, urethanes, textiles, inks, adhesives, cosmetics, pharmaceuticals.

BAYONNE, N. J. (Main Office) 40 Avenue A, Area Code 201, HEmlock 6-8800
 CHICAGO 45, ILL. 5915 N. Lincoln Ave., Area Code 312, LOnG Beach 1-6506
 LOS ANGELES 22, CALIF. 5585 E. 61st St., Area Code 213, RAYmond 3-1318

B3 CANADIAN TITANIUM PIGMENTS LIMITED

Titanium pigments for the paint, paper, plastics, rubber tile, ceramics, welding rod coating, synthetic fiber and other industries.

MONTREAL 2, QUE. (Main Office) 1401 McGill College Ave., Area Code 514, VICTor 4-3381
 TORONTO 1, ONT. Terminal Warehouse, Area Code 416, EMpire 3-2065
 VANCOUVER 5, B.C. 1575 W. Georgia St., Area Code 604, MUtual 5-0813

B3α ENELCHEM PRODUCTS DIVISION

Canadian Titanium Pigments Limited

Antimony silico oxide, basic silicate white lead, basic lead silico chromate, red lead, litharge, lead silico titanate, titanium sulphate cake, extender pigments, gelling agents, stabilizers for vinyl plastics.

(Sales offices same as B3 listing next above)

0000-NLI-000020655

SECTION

B

B4 DE LORE DIVISION, NATIONAL LEAD COMPANY

Barytes and barium and calcium pigments for paints, paper, plastics and rubber.

ST. LOUIS 11, MO. Mississippi River and River Des Peres, Area Code 314, FLanders 3-0404

B5 EVANS LEAD DIVISION, NATIONAL LEAD COMPANY

Lead oxides for storage batteries, paints, ceramics, rubber and plastics; lead silicate for ceramics.

CHARLESTON 25, W. VA. P.O. Box 1467, Area Code 304, DLckens 2-8103

B6 TITANIUM PIGMENT CORPORATION

Titanium pigments and chemicals for paint, paper, rubber and plastics, floor coverings, printing inks, ceramics, welding rod coatings and synthetic fibers.

NEW YORK 6, N. Y. (Main Office) 111 Broadway, Area Code 212, REctor 2-4942
ATLANTA 5, GA. 3272 Peachtree Rd., N.E., Area Code 404, CEdar 3-4055
BALTIMORE (Towson 4) MD. 724 York Rd., Area Code 301, VALley 8-8155
BOSTON 6, MASS. 800 Albany St., Area Code 617, GArrison 7-1000
CHICAGO 3, ILL. 104 S. Michigan Ave., Area Code 312, RANdolph 6-8494
CLEVELAND 13, OHIO 2208 Terminal Tower, Area Code 216, 241-7195
HOUSTON 2, TEXAS 5115 Westheimer, Area Code 713, SUNset 2-6696
LOS ANGELES 22, CALIF. 6449 Corvette St., Area Code 213, RAYmond 3-6501
PHILADELPHIA 3, PA. 117 S. 17th St., Area Code 215, LOcust 7-7153
PITTSBURGH 12, PA. 1376 River Ave., Area Code 412, FAirfax 1-2335
PORTLAND 14, ORE. 48 S.E. Hawthorne Blvd., Area Code 503, BElmont 5-6689
ST. LOUIS 11, MO. Carondelet Station, Area Code 314, FLanders 3-3980
SAN FRANCISCO 7, CALIF. 350 Townsend St., Area Code 415, GARfield 1-1441

**B7 TITANIUM ALLOY MANUFACTURING DIVISION,
NATIONAL LEAD COMPANY**

Zirconium oxide and silicates for the ceramic industry; titanates and zirconates for the electronics industry; titanium and zirconium alloys, chemicals and compounds for optical goods polishing, leather tanning, pharmaceuticals, catalytic reagents and welding rod compounds.

NEW YORK 6, N. Y. 111 Broadway, Area Code 212, REctor 2-9400

B8 GOLDSMITH BROS. DIVISION, NATIONAL LEAD COMPANY

Silver nitrate for photographic film; silver chloride for mirrors and batteries; gold, silver and platinum group metals for jewelry, dental applications and electronic equipment; mercury for instrument manufacturer and pharmaceutical uses; gold and silver plating salts; silver brazing alloys and brazing fluxes.

CHICAGO 8, ILL. 900 W. 18th St., Area Code 312, CANal 6-3700

0000-NLI-000020656

Paint and Allied Products

C1 NATIONAL LEAD COMPANY—BRANCH OFFICES

Paints, varnishes, enamels, lacquers, stains and other finishes for all decorative and protective purposes.

(General Offices: 111 Broadway, New York 6, N.Y., Area Code 212, REctor 2-9400)

ATLANTA 9, GA. 451 Bishop St., N.W., Area Code 404, TRinity 6-7361
 BALTIMORE 3, MD. 214 W. Henrietta St., Area Code 301, PLaza 2-6900
 BOSTON 6, MASS. 800 Albany St., Area Code 617, GArrison 7-1000
 CHICAGO 8, ILL. 900 West 18th St., Area Code 312, CAAnal 6-3700
 CINCINNATI 11, OHIO 3670 Werk Rd., Area Code 513, 922-4100
 CLEVELAND 13, OHIO 1776 Columbus Rd., Area Code 216, PROspect 1-4060
 DALLAS 16, TEXAS 1000 Sargent Rd., Area Code 214, WHitehall 8-3521
 DEPEW (nr. Buffalo) N. Y. 3241 Walden Ave., Area Code 716, NT 3-6840
 DETROIT 11, MICH. 3501 Griffin St., Area Code 313, TRinity 4-0488
 KANSAS CITY 7, MO. 1406 W. 13th St., Area Code 816, VIctor 2-0507
 LOS ANGELES 23, CALIF. 3113 E. 26th St., Area Code 213, ANgelus 3-7121
 NEW YORK 6, N. Y. 111 Broadway, Area Code 212, REctor 2-9400
 PHILADELPHIA 25, PA. 2607 E. Cumberland St., Area Code 215, GARfield 6-0600
 PITTSBURGH 12, PA. 1376 River Ave., Area Code 412, FAirfax 1-2335
 PORTLAND 10, ORE. 4322 N.W. Yeon Ave., Area Code 503, CApitol 8-0254
 ST. LOUIS 1, MO. 1015 Locust St., Area Code 314, CHestnut 1-8782
 SAN FRANCISCO 10, CALIF. 2240 24th St., Area Code 415, MIssion 7-0440
 SEATTLE 4, WASH. 1128 S.W. Spokane St., Area Code 206, MAin 2-1950

0000-NLI-000020657

D

Oil Well Drilling Materials, Refractories, Minerals and Other Products

D1 BAROID DIVISION, NATIONAL LEAD COMPANY

Oil well drilling muds and weighting agents, well logging services, testing equipment, gelling agents for greases, petroleum industry chemicals, gas detection devices and foundry supplies.

HOUSTON, TEXAS (Main Office) . . . 2404 Southwest Freeway, Area Code 713, JAcKson 4-6381
 COMPTON, CALIF. 19301 S. Santa Fe, Area Code 213, GArfield 2-1555
 DENVER, COLO. 290 Denver Club Bldg., Area Code 303, 266-1953
 MIDLAND, TEXAS Vaughn Bldg., Area Code 915, MUtual 2-4381
 TULSA, OKLA. 1101 Philtower Bldg., Area Code 316, LUther 2-8161
 LIBERTY, TEXAS Highway 90, Area Code 713, FEderal 6-3636
 HOUSTON, TEXAS (Area Office) . . . 1806 South Coast Bldg., Area Code 713, CApitol 5-0391
 SHREVEPORT, LA. 1618 Slattery Bldg., Area Code 318, 424-8143
 NEW ORLEANS, LA. 1512 Pere Marquette Blvd., Area Code 504, 524-5165

D2 FLOATING FLOORS, INC.

Elevated floors for computer rooms, hospitals, laboratories and other applications where underfloor space must be utilized for cables, ducts, piping, motors, etc; "Site Environmental Systems" for control of temperature, humidity and air cleanliness in rooms equipped with "floating floors" components.

NEW YORK 17, N. Y. 22 E. 42nd St., Area Code 212, YUkon 6-9050

D3 STEEL PACKAGE DIVISION, NATIONAL LEAD COMPANY

Small steel containers for paints, oils, grease and other industrial liquid, paste or viscous products.

ST. LOUIS 1, MO. 1015 Locust St., Area Code 314, CHestnut 1-8782

D4 THE CHAS. TAYLOR SONS COMPANY

High temperature refractories for industrial furnaces.

CINCINNATI 14, OHIO 710 Burns St., Area Code 513, WABash 1-0250

D5 NALCON DIVISION, NATIONAL LEAD COMPANY

"Polysep" storage battery separators and other encapsulated cellulose and pigment products.

NEW YORK 6, N. Y. 111 Broadway, Area Code 212, REctor 2-9400

**D6 TITANIUM ALLOY MANUFACTURING DIVISION,
 NATIONAL LEAD COMPANY**

Zirconium oxide and silicates for the ceramic industry; titanates and zirconates for the electronics industry; titanium and zirconium alloys, chemicals and compounds for optical goods polishing, leather tanning, pharmaceuticals, catalytic reagents and welding rod compounds.

NEW YORK 6, N. Y. 111 Broadway, Area Code 212, REctor 2-9400

D7 TITANIUM DIVISION, NATIONAL LEAD COMPANY

Copperas — ferrous sulphate, magnetite and magnetite sinter, titanates, titanium chemicals, titanium tetrachloride, rutile titania boules, strontium titanate boules.

NEW YORK 6, N. Y. 111 Broadway, Area Code 212, REctor 2-4942

TEXAS MINING & SMELTING DIVISION

Antimony metal for making alloys of lead and tin; antimony oxide for paints and plastics.

(NOTE: These materials are sold through offices indicated in "Product List.")

LAREDO, TEXAS Area Code 512, RA 2-2486

SPECIAL SERVICES AVAILABLE

In addition to the products listed, National Lead Company offers Research, Development and Engineering services in certain fields of interest. These services, which may or may not involve the concurrent or eventual use of our products, are normally rendered on a contract-fee basis.

These special capabilities, with appropriate

facilities, are a natural projection of some of the Company's own operations in certain fields. The experience and skills thus obtained by work on "internal" projects, may be shared, on a mutually agreed-upon basis, with organizations which feel the need of specialized assistance not readily available within their own structures.

The areas of interest include:

- Design and engineering of experimental or production sheet metal forming tools.
- Design and engineering of metal products or components for production by the die cast, impact extrusion and forging processes.
- Design and engineering of radiation shieldments of lead or depleted uranium.
- Design and engineering of systems and equipment for the recovery of spent acids or waste liquors.
- Research and development work on various applications of single crystal structures.
- Research and development work on metal-joining methods which involve soldering or brazing.
- Research and development work which involves the use of various types of pigments.

Inquiries regarding any of these fields of interest should be directed to:

**Design and Development Services
NATIONAL LEAD COMPANY
111 Broadway, New York 6, N. Y.**

TRADEMARKS

of

NATIONAL LEAD COMPANY, ITS DIVISIONS, SUBSIDIARIES AND AFFILIATES

include:

AA	DYPHOS	MOLSPRAY	SURFACTOL
ALBERTABOND <i>Handwritten</i>	DYTHAL	M P A	SURFLO
ALTAM	E P MUDLUBE	NALCO	T15
ANHYDROX	ESTERWAX	NALCO-LITE	TAM
AQUAGEL <i>Handwritten</i>	ESTYNOX	NALCON	TAMAX
BAKER'S	EWB	NALCRETE	TAMAX-EF
BARABOND	E Z MUL	NALPLEX	TAM TAN
BARAFLOC	FCT	NALZIN	TAM TRODE
BARAFOS	FIBERTEX	NATIONAL	TAMUL
BARAGEL <i>Handwritten</i>	FLEXRICIN	NEGADD	TANNEX
BARAWATE	FLOATING FLOORS	NEOLITH	TASIL
BAROCO	FLOMAX	9-11	TAYCO
BAROID <i>Handwritten</i>	FLUXRITE	NLC	TAYCOR
BAROSIL	FOAM A	NORCONITE	TAYCOR-99
BARYTA WHITE	45X	NORMASAL	TAYLOR ZIRCON
BEN-A-GEL <i>Handwritten</i>	FROBAN	#3 OIL	TAYLOR DENSE ZIRCON
BEN-A-MUL <i>Handwritten</i>	GB	ONCOR	TEMEX
BENECAL 910	GELTONE <i>Handwritten</i>	OOLITIC F, C	THERMOFILM
BENTONE <i>Handwritten</i>	HI-OXIDE	OPALWAX	THIXATROL
BLATCHFORD	HI-PHY <i>Handwritten</i>	OPAX	THIXCIN
BLENDOYL	HOYT	P-10	TICON
BORTAM	HYDRICIN	PARACIN	TIMET
BRADLEY	HYDROCAST	PETRO BOND	TIROID
BVS	HYDROSET	PETRO BOND .HT	TITANOX
CARBONOX	HY-SEAL	PETROTONE <i>Handwritten</i>	TREOPAX
CARBORTAM	IMPERIAL	PLUG-GIT	TRIBASE
CASTORWAX	IMPERMEX	PLUMB-O-SIL B, C	TRIBASE E
CASTUNG	INSULOXIDE	POLYCIN	TRI-MAL
CB	INVERMUL	POLYFLAKE	TRIMULSO
CC-16	IVEX	POLYSEP	TUBOND
CCO WHITE	KERO-X	PRIMEX	TZ
CELLEX	KIRK	PROVENITE	TZB
CERCLAY	KIRKSITE } <i>Handwritten</i>	QUIK-GEL <i>Handwritten</i>	23A
CINCH	KIRKSON	QUIK-THIN	UNITED
CLARITE	KREVICE KLOG	RED SEAL	VERA BLANC
CLEAR	LAWRENCE	RMM	VORITE
COAT	LEADSTAR	ROTO CAST	WALL-NUT
CON DET	LEATHER SEAL	ROYAL SEAL	WATER BAN
CRYSTAL	LECTRO 60, 77, 78	RUFLUX	WELDOPAX
CS-137	LESMOKE	SCHORN	WOODCOTE
C.T.	LIGNOX	SES	X10R
CZ	LONE STAR	SETIT	X-COR
DB	LORITE	SHALE BAN	XXX-1
DEXTRID	L-T-Z	SKOT FREE	Y47
DRILOIL	LUBRICIN	SLIK	ZEOGEL
DRILTREAT	MAGNUS	SMENTOX	ZIRCO
DROP	MASTERBUILT	SOLRICIN	ZIRCONAMEL
DRYOX	MELTOPAX	STAR	ZIRCONITE
DS-207	M50	S25	ZIRCOPAX
DURATONE	MICATEX	SULFRICIN	ZIRMUL <i>Handwritten</i>
DUTCH BOY	MILRITE	SUPERPAX <i>Handwritten</i>	ZIROX

NATIONAL LEAD COMPANY OPERATIONS

Outside Continental United States

AUSTRALIA

MINERAL DEPOSITS PTY. LTD......Sydney
Rutile and zircon ores

THE TITANIUM ALLOY MFG. CO. PTY. LTD......Tweed Heads
Rutile and zircon ores

CANADA

BARBER DIE CASTING CO., LTD......Hamilton, Ontario
Aluminum, zinc, magnesium and copper alloy die castings

BAROID OF CANADA, LTD......Calgary, Alberta
Oil well drilling materials, well logging services and testing equipment

CANADIAN TITANIUM PIGMENTS LIMITED.....Montreal, Quebec
Titanium pigments

ENELCHEM PRODUCTS DIVISION.....Montreal, Quebec
 (CANADIAN TITANIUM PIGMENTS LIMITED)
*Lead pigments, lead-base pigments, lead oxides, gellants,
 stabilizers for vinyl plastics*

LAKESHORE DIE CASTING, LTD......Oakville, Ontario
Aluminum and zinc die castings

ROTO-CAST LIMITED.....Toronto, Ontario
Bronze castings

THE CANADA METAL CO., LTD......Toronto, Ontario
*Lead oxides, fabricated lead products, lead and zinc alloys,
 brass and bronze products, metal powders*

THE CARTER WHITE LEAD CO. OF CANADA, LTD......Montreal, Quebec
Basic carbonate white lead and lead oxides

EUROPE

ABBAY CHEMICALS LIMITED.....London, England
Gellants, stabilizers for vinyl plastics

BAROID INTERNATIONAL, S.p.A......Rome, Italy
Oil well drilling materials

CHAS. TAYLOR SONS S.A......Brussels, Belgium
High temperature refractories

DERIVES DU TITANE S.A......Langerbrugge, Belgium
Titanium pigments

HOYT METAL CO. OF GREAT BRITAIN, LTD......London, England
Antifriction metals

KRONOS TITANIUM PIGMENTS LTD......London, England
Titanium pigments

METAL CASTINGS DOEHLER LTD......Worcester, England
Aluminum and zinc die castings

SOCIETE BELGE DU TITANE S.A......Brussels, Belgium
Titanium pigments

SOCIETE INDUSTRIELLE DU TITANE.....Paris, France
Titanium pigments

TITAAN N.V......Rotterdam, Netherlands
Titanium pigments

TITAN CO. A/S.....Fredrikstad, Norway
Titanium pigments and paints

TITANGESELLSCHAFT m.b.H......Leverkusen, West Germany
Titanium pigments

TITANIA A/S.....Hauge i Dalane, Norway
Ilmenite

PHILIPPINES

NATIONAL LEAD COMPANY (PHILIPPINES).....Manila
Paints, varnishes and enamels

SOUTH AMERICA

BAROID DE VENEZUELA, S.A......Maracaibo, Venezuela
Oil well drilling materials

BARYTES & MINERALS LIMITED.....Port of Spain, Trinidad
Oil well drilling materials

CIA. MINERA CASTANO VIEJO S.A......Buenos Aires, Argentina
Lead and zinc concentrates

DOEHLER ARGENTINA S.A......Buenos Aires, Argentina
Aluminum and zinc die castings

INDUSTRIAS DERIPLON S.R.L......Buenos Aires, Argentina
Lead oxides

INDUSTRIAS DOEHLER DO BRASIL S.A......São Paulo, Brazil
Aluminum and zinc die castings

NATIONAL LEAD COMPANY S.A......Buenos Aires, Argentina
Lead and lead products