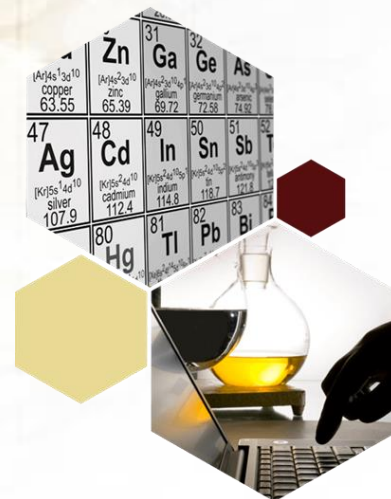


ProChem inc.

Your Source of High Purity Materials

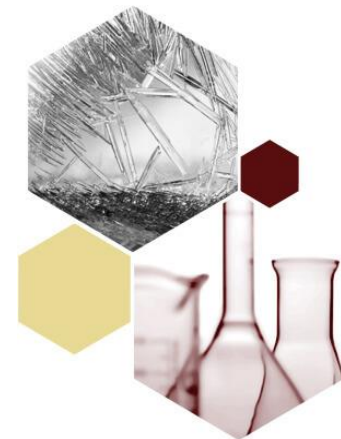


**CELEBRATING 35 YEARS
IN BUSINESS!**

ProChem Inc.

About us

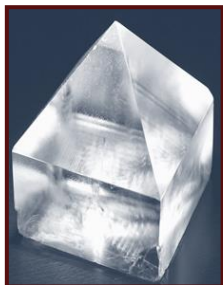
- For over 35 years, ProChem Inc. has been supplying a variety of high purity inorganic compounds and custom precursors for Advanced Materials applications
- Our mission is to provide a stable long-term source for Critical Chemicals, manufacturing to the highest purity standards, and ensuring that supply chains are robust
- We make products in the US and our in-house analytical capabilities allow for reliable in-process testing to guarantee our products meet specifications



ProChem Inc.

Historical Overview

- 1986 Founded ProChem by Reno Novak to produce specialty inorganic chemicals
- 1988 - Present: Ultra High Purity Potassium Dihydrogen Phosphate (Lawrence Livermore National Laboratories)
- 1990 - Present: Critical Reagents for Diabetic Diagnostics (Bayer/Siemens Healthcare)
- 1992 - 1994: Precursors for Ferroelectric Research (Motorola)



*Single Crystal
Potassium Dihydrogen Phosphate*





Lawrence Livermore National Laboratory

114,356 followers

2mo • 

What is fusion ignition? [#OnThisDay](#) Dec. 5, 2022, [Lawrence Livermore National Laboratory](#) made history, demonstrating fusion ignition for the first time in a laboratory setting – an achievement six decades in the making.

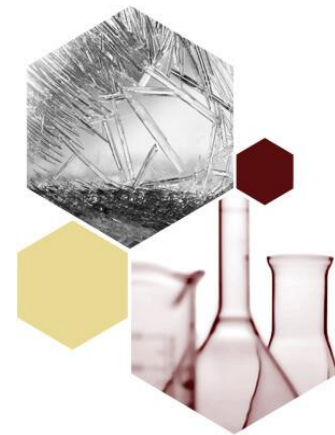
Explore [#FusionIgnition](#) and its role in supporting the [National Nuclear Security Administration \(NNSA\)](#)'s Stockpile Stewardship

Program: <https://lnkd.in/grPaAnrj>



ProChem Inc.

Historical Overview



1992 - 1995: Precursors for Antistatic / Antireflective CRT Screens Coatings (Clinton Electronics)

2003 - Present: Anhydrous Metal Bromides for Liquid Crystal Displays

2007 - Present: Chrome Free Corrosion Coatings for the Auto Industry

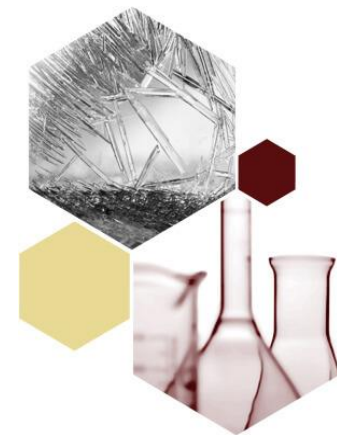
2008 - 2010: Developed process for making and purifying Hexachlorodisilane (Si_2Cl_6) for semiconductor memory chips. (Samsung) 10Metric tons/year capacity

During 2011: Formed spin-off company **Nova-Kem** to develop precursors for semiconductor industry



ProChem Inc.

Historical Overview



- 2012 Acquired Cambridge-Majors facility and established R&D center for Rapid Precursor Development (Germantown WI)
- 2012 - Present: High Purity *trans*-Stilbene for Crystal Growth
- 2014 Initiated sale of **Nova-Kem** to Wonik Materials (S.Korea)
- 2016 Finalized sale of **Nova-Kem** to Wonik Materials
- 2020 - Present Expanding portfolio and scale-up of Inorganics and metal-organics to supply “precursors for precursors” produced in the United States

ProChem, Inc.

Product Lines & Services



- High Purity Inorganics & Metal Organics
- Rare Earth Products & Pure Elements
- Precursors for Crystal Growth & Electronics

- Custom Formulations
- Custom Synthesis & Process Development
- Custom Packaging, Blending & Tolling

ProChem Inc.

Production Capabilities

- Over 25,000 Square Feet of Manufacturing Space
- 50,100,200,300 gal. Glass-lined Reactors
- SS reactors and blending tanks up to 800 gallons
- Hot-Oil Heating up to 230° C and Drying Ovens

- Solid-State Synthesis
- Milling and Grinding Equipment
- Inert-Gas Handling and Packaging
- Ultrapure DI Water System
- Warehousing Space



ProChem Inc.

Analytical Services

- ICP-OES
- Benchtop NMR
- X-Ray Diffraction (XRD)
- FT-IR and UV-Vis
- Karl Fischer Titration
- Elemental Chemical Analysis
- Analytical Method Development

- ***Electron Microscopy and XPS Analysis via UW - Milwaukee***



ProChem Inc.

Neodymium Chloride (anhydrous)

Applications

essential component of the Remdesivir's production process

2020

April:	4 kg
May	4 kg
June	1150 kg
July	1350 kg
August	2000 kg
September	1500 kg
November	1000 kg



ANALYTICAL REPORT



Company : _____ P.O.# : _____
Material : #2633 Neodymium chloride anhydrous, 99.9% Lot# : 11160
Quantity : _____ Date : 8/31/2021

ANALYTICAL METHODS : Emission Spectroscopy
UV Spectroscopy _____
IR Spectroscopy _____
Analysis : Parts per million Typical _____
Parts per billion _____ Actual % Nd = 57.71%

Ag	ND	F	_____	Nb	_____	Sm	_____
Al	115.22	Fe	6.95	Nd	_____	Sn	ND
As	< 1	Ga	_____	Ni	1.35	Sr	ND
Au	_____	Gd	_____	O	_____	Ta	_____
B	_____	Ge	_____	Os	_____	Tb	_____
Ba	3.14	Hf	_____	P	_____	Tc	_____
Be	ND	Hg	_____	Pb	ND	Te	_____
Bi	ND	Ho	_____	Pd	_____	Ti	ND
Br	_____	I	_____	Pm	_____	Tm	_____
C	_____	In	_____	Pr	_____	V	ND
Ca	23.2	Ir	_____	Pt	_____	W	_____
Cd	ND	K	< 5	Rb	_____	Y	_____
Ce	_____	La	_____	Re	_____	Yb	_____
Co	ND	Li	ND	Rh	_____	Zn	14.26
Cr	0.67	Lu	_____	Ru	_____	Zr	ND
Cs	_____	Mg	4.27	S	_____		
Cu	ND	Mn	0.28	Sb	ND		
Dy	_____	Mo	ND	Sc	_____		
Er	_____	N	_____	Se	ND		
Eu	_____	Na	7.88	Si	12.99		

% Nd = 57.71%
ND = not detected with
0.2 ppm limit
Water = 0.583%

QA Manager



ProChem Inc.

Ferric Sulfate

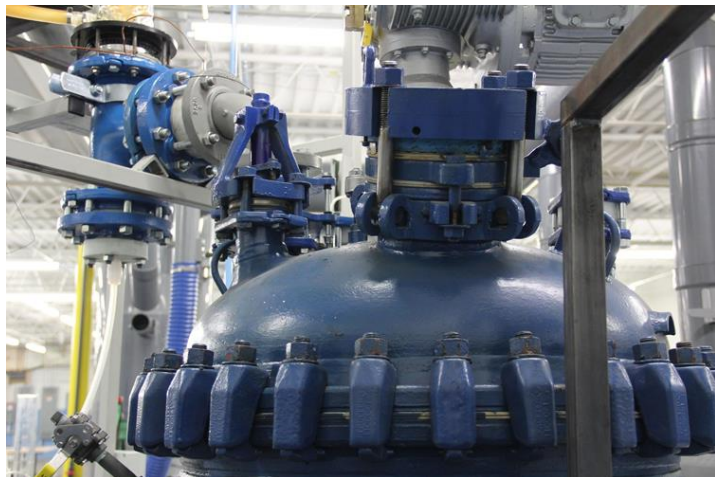
Applications

Biomedical; source of iron

Year One: 160 kg

Year Two: 9273 kg

Year Three: 18600 kg



Dedicated Reactor (before the project started)

CERTIFICATE OF ANALYSIS

PRODUCT: Ferric Sulfate hydrate

Lot#: 01207

Test	Specification	Analysis
Assay (as Fe ₂ (SO ₄) ₃)	73% min.	78.77%
Insoluble Material	0.02% Max	< 0.01%
<u>Chloride</u> (Cl)	0.002% max	< 0.002%
<u>Nitrate</u> (NO ₃)	0.01% Max	< 0.01%
<u>Copper</u> (Cu)	< 10 ppm	< 1 ppm
Ferrous Iron as (Fe ⁺⁺)	0.02% Max	< 0.02%
Substances not precipitated by NH ₄ OH	0.01% Max	< 0.01%
pH of test solution	> 4.5	Passes test
Zinc (Zn)	< 50 ppm	4.86 ppm
Lead (Pb)	< 1 ppm	< 1 ppm
Aluminum (Al)	< 20 ppm	4.92 ppm
Tin (Sn)	< 5 ppm	1.44 ppm
Thallium (Tl)	< 10 ppm	< 1 ppm
Arsenic (As)	< 1 ppm	< 1 ppm
Molybdenum (Mo)	< 10 ppm	< 1 ppm
Cadmium (Cd)	< 5 ppm	< 1 ppm
Mercury (Hg)	< 1 ppm	< 1 ppm
Bismuth (Bi)	< 2 ppm	< 1 ppm
Antimony (Sb)	< 2 ppm	< 1 ppm
Silver (Ag)	< 5 ppm	< 1 ppm

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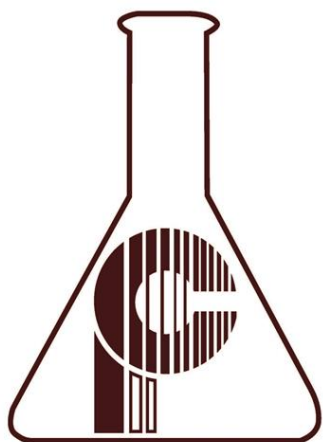
Catalog

- Over 1000 Products
- Customer-friendly Search Engine
- 70% Manufactured in House
- Custom Packaging to Prevent Excess Inventory
- Technical Service Support
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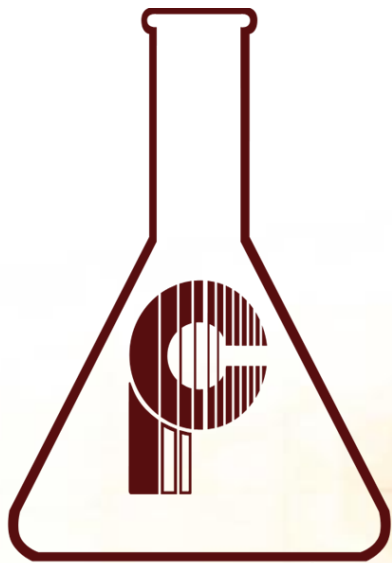
Come and see us at Booth #103

Phone: 815-398-1788 or 800-795-8788

Email: info@prochemonline.com

Our Website: <https://prochemonline.com/>





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