

- GOVERNMENT SPENDING -REPORT

ARCHITECTURE

How many government contracts are awarded each year to businesses across Texas? Who are the top businesses getting government contracts? How likely are you to win architecture bids in Texas? We searched BidView's database of 10,000+ contracts active in FY15 to answer these questions. Check out the impressive findings below!

HOW MANY CONTRACTS WE TALKIN'?



CONTRACTS AWARDED IN ARCHITECTURAL SERVICES

\$5.57M HIGHEST VALUE BID AWARDED



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MULTI-YEAR CONTRACTS

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AMOUNT AWARDED WITH ZERO COMPETITION





TOTAL AMOUNT AWARDED IN ARCHITECTURE

Texas government agencies and public universities spent this much total on architectural services.

WHO AWARDED ARCHITECTURE CONTRACTS?



87%

SPENDING BY UNIVERSITIES

TEXAS STATE UNIVERSITY AWARDED 2 CONTRACTS WORTH \$7.46M

TEXAS TECH UNIVERSITY AWARDED 5 CONTRACTS WORTH \$6.84M

> UT AUSTIN AWARDED 5 CONTRACTS WORTH \$1.48M



SPENDING BY STATE AGENCIES

FACILITIES COMMISSION AWARDED 1 CONTRACT WORTH \$1.194M

DEPT. OF CRIMINAL JUSTICE AWARDED 1 CONTRACT WORTH \$1.15M

WHO ARE THE TOP PLAYERS?



Sandia Construction Inc. 1 CONTRACT WORTH \$5.57M



HDR Architecture Inc. 3 CONTRACTS WORTH \$4.81M



Stantec Architecture Inc. 1 CONTRACT WORTH \$3.07M

HOW DID WE FIND ALL THIS GREAT INFO? THE BIDVIEW APP, OF COURSE.

BidView is your One Stop Government Bid Shop. Download BidView on your mobile device today! Use the handy "Awards" feature to search for contracts awarded in your industry. There are 10,000+ awards you can sift through to make smart, strategic decisions about which bid opportunities could lead you to the biggest results.





The MyVA Access initiative aims to implement the following twenty solutions to all Veterans Affairs Medical Centers and Outpatient Clinics by the end of 2016.

- Implement Open Access in Primary Care 1.
- Implement Enhanced Access in Specialty Care & Mental Health 2.
- Build Virtual Care Capacity 3.
- Implement E-Consults Across Specialties 4.
- Increase Mental Health Same-Day Access, Implement PC-MHI 5.
- Utilize Same-Day Referrals to Mental Health for SuicidePrevention 6.
- Implement Clinic Practice Management Model
- Implement Triage Standards of Same-Day Referral: Stat Needs 8.
- Respond to Routine Clinical Inquiries within 2 Business Days 9.
- 10. Increase use of Secure Messaging

MAACCESS Solutions

MyVA Access Solutions Solutions for Immediate Improvement to Veterans' Access to Care

- Engage Patients Directly in Scheduling Appointments
- Do Not Cancel Clinics within 45 Days
- Implement Extended Clinic Hours 13.
- 14. Reinforce Standard Procedures for Scheduling
- 15. Improve Call Center Performance with Consistent Evaluation
- Improve Management of View Alert Notifications in CPRS 16.
- Implement Standardization of Primary Care Clinics
- Implement Direct Scheduling for Audiology and Optometry 18.
- Provide Seamless Care to Veterans Who Are Away from their Regular VAMC 19.
- Implement Dragon Voice Recognition Software for Clinical Documentation





MEDICATION RECONCILIATION

INTEGRATED SYSTEM DEPLOYMENT

Medication reconciliation is a CHALLENGE for the entire health care industry. VA is leading the way, streamlining an effective & innovative MedRecon process.

We practice **MedRecon** to protect veterans from these common reconciliation issues.



15-25% of patients are not taking one or more of the medications listed on their chart. 11-13% of patients are taking medications not listed on their chart.



99.7%

of Lists for Medication Review are inaccurate or incomplete Only 59% of patients understand the purpose of their medications.

59%

Standardized Medication Reconciliation Systems

help prevent adverse events and make the reconciliation process better for providers.



Reduces the need to review out-of-date, missing, and extraneous medications.

Streamlines the reconciliation process by eliminating the need to review multiple charts.

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Eliminates provider workarounds and ensures standardized work.

Learn more

http://go.va.gov/MedReconFAQ http://go.va.gov/MedReconToolkit





Shepherd The Right Partner: Customers Sourced 100% with Shepherd



Water Soluble Bismuth Based Curatives with Remarkable Activity and Shelf Life

Abstract

1916 Shepher 2016

A new line of polyurethane curatives, BiCATs™ 8840 and 8842 address environmental regulations while maintaining high activity and stability in water-blown systems. These new bismuth catalysts have cedented shelf lives extending up to 15 months. Their high activity means formulators can achieve similar performance to toxic metal systems, such as organotins, and replace high VOC amine catalysts. Together, through seamless compatibility with HFO blowing agents, BiCAT[™] 8840 and 8842 help create the greenest spray foam formulations available today



Challenges

New, energy-efficient HFO blowing agents require metal catalysts for fast cures.

Legacy curatives are toxic.

Environmental regulations restrict legacy curatives.

Prior bismuth catalysts are not ideal for polyurethane formulations.

Environmental Concerns

BiCATs[™] 8840 and 8842 were formulated to address growing global concerns around chemical toxicity and environmental impact on made spaces and end users. REACh has placed pressures on manufacturers and many polyurethane catalysts are now registered or contain registered components. As the industry transitions to 4th generation HFO blowing agents, metal catalysts—like mercury, lead, organotin or bismuth—are necessary. • Mercury and lead are classified as poisons or hazardous substances & require extreme shipping and handling precautions.

The Shepherd Approach

Inventive Technology

Design Problem

While bismuth carboxylates clearly have a great affinity for the activated complex of alcohol and isocyanate—and catalyze reactions very well they also have great potential to hydrolyze in water, reprotonating the carboxylate and causing the bismuth to "fall out" as the oxide.⁴⁻⁸

Our Solution

- Use a bulky, lone-pair donating ligand, without significant potential for protonation, to protect the bismuth ion from water but allow displacement to make the biuret activated complex
- Design metal-ligand complex from readily available bismuth carboxylates

To provide the needed coordination environment and chemistry, we focused on branched alkanolamines. We found the best performance in terms of hydrolytic stability and catalytic performance with the two ligands featured in Figures 1 and 2. The resulting bismuth catalysts, BiCATs[™] 8840 and 8842 are also formulated with an ethlylene glycol that seems to serve as a compatibilizer and phase transfer agent.⁹





N,N,N',N'-tetrakis(2-hy-

Figure 1. BiCAT[™] 8840 Ligand Figure 2. BiCAT[™] 8842 Ligand N,N,N',N'-tetrakis(2-hydroxyethyl)ethylene diamine droxyethyl)ethylene diamine

BiCATs[™] 8840 & 8842 Characterization



Water Stability Study

Water stability of the catalyst is important for polyurethane formulations. BiCATs™ 8840 and 8842 provide water solubility to the bismuth while retaining polyol solubility and impressive cure rates. Figures 7-9 reveal the miscibility of 8840 and 8842 and the precipitation of bismuth oxide from BiCAT[™] 8106. Photographs taken 24 hours after addition of water.



Figure 7. BiCAT[™] 8106: Legacy B muth Curative Breaks Down in Water

Nathan Eckert and Robert Hart*

Introduction

• Organotins are immunotoxic, especially for aquatic life, and are therefore restricted by REACh with a strong likelihood for additional regulations in the United States.¹⁻³ Bismuth is a non-toxic, environmentally friendly metal catalyst.

 Negligible toxicity of bismuth inspired us to find early applications in CASE Studying and perfecting bismuth chemistry since the 1960s

Our first bismuth catalysts strengthened automobile foam panels

 Our custom co-development process led to the invention of BiCAT[™] product line Collaborative approach with customers and partners

Expertise in metal organic chemistry



Characteristics











echnology Provides Water Stability

Figure 9. BiCAT[™] 8842: New Ligand **Technology Provides Water Stability**

Applications

Spray Foam Performance with HFO Blowing Agent Slabstock Foam Performance



Figure 10. Foam Performance Characteristics fo Metal Catalysts in a Generic Spray Foam Formula tion with 4th Gen. HFO Blowing Agent



Figure 12. Foam Temperature vs. Time



Figure 11. Shelf Life Stability Data: Foam Performance Characteristics for Metal Catalysts after Aging for 1 Week at 50°C



Advantages

Industrial Advantages



Unprecedented Shelf Life (15+ Months)



Water Soluble

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Environmental & Health Advantages

Negligible Toxicity

Low VOC

Unencumbered by Regulation

EPA Approved

Creating Value, Brightening Lives Learn more at www.ShepChem.com.

Catalyst	Cream Time(s)	Tack-Free Time(s)	Foam Density (kg/m³)		
Sn Oct	14	89	35.4		
BICAT™ 8842	15	88	35.1		
Table 1. Feam Derformance Characteristics for Motal Catalysts in an					

Table 1. Foam Performance Characteristics for Metal Catalysts in anAutomotive Slabstock Foam

VOC Levels



Key Insights

- Reactivity profiles of BiCATs[™] 8840 & 8842 show fast cure rates and stable foam structure
- Maintenance of high cure rates after accelerated aging shows stability
- 50% reduction in VOCs vs. Sn Oct
- Superior spray foam performance remained after an extended 15 month shelf life stability test



The Shepherd Chemical Company

Founded in 1916 in the Ohio River Valley region, The Shepherd Chemical Company is celebrating its 100 year anniversary. As a fourthgeneration family-owned and managed company, we are proud to be a finalist for the 2016 CPI Polyurethane Innovation Award.

- Custom Co-Development
- Global Infrastructure
- Continuous Improvement
- REACh Support
- Lean Six Sigma
- ISO 9001-2009 ACC RCMS Certified
- TSCA Capability



The authors gratefully acknowledge Mary Bogdan and David Wilkes of Honeywell International, Inc. for helpful conversations and foam characterized data. Mr. Timothy Joy, Mr. Michael Vierheller, Mr. Joby Cumby and Mrs. Holly Skiba all of The Shepherd Chemical Company assisted with experime Mr. Tod Duvall and Dr. Jeffrey Sullivan of Sirrus Chemistry are acknowledged as co-inventors of BiCAT[™] 8840 and 8842 technology. Prof. Joseph Lawrence and his group at University of Toledo collected much of the cure behavior and foam property data. We would especially like to thank Dr. Kathryn Trauth Taylor of Taylor Technical Consulting, LLC for technical writing support. Finally we recognize the directors of The Shepherd Chemical Company for permission to present and publish this work.

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Shepherd and DuPont co-developed a process for aqueous precipitation of "crystalline particles of basic copper carbonate having uniformly dispersed therein bismuth" -US Patent 4107082 A

Reduces operation costs by:



Reducing filter clogging to extend run length



Minimizing down time



Decreasing the number of catalyst change outs

In the 1930s, scientists discovered that copper could catalyze a reaction between formaldehyde and acetylene to form 1,4-butynediol. However, it wasn't until the 1970s that scientists at DuPont collaborated with The Shepherd Chemical Company to develop a custom designed bismuthdoped copper carbonate catalyst precursor that would help fuel this technology's resurgence. The finely tuned particle size, surface area, morphology, consistency and stability has allowed Shepherd Chemical to remain the supplier of choice in this industry for over 4 decades.

SCC acts as an ethynylation catalyst for the production of Spandex. It reduces the operating pressure in the manufacturing of butynediol from 20 bar to 1 bar, reducing the risk of explosion to operators.

Since the 1970s, Shepherd Chemical has consistently served as the trusted partner to make innovative advancements to the design of this vital catalyst precursor technology. Our latest innovation, SCC-XL, was designed to enhance performance, optimize surface area, limit particle fracturing, and ultimately increase catalyst lifetime during the 1,4-butynediol manufacturing process.



Basic Copper Nitrate Case Study





Custom Formulations



Years of Experience

Airbags serve as a life-saving technology for the more than 5 million people who have a driving accident every year. Yet few understand the high precision chemistry behind the airbag's pyrotechnic inflators. A rapid reaction between Basic Copper Nitrate and Guanidine Nitrate produces nitrogen gas, which inflates the airbag-producing life-saving results. Deviations in response by 70 milliseconds can lead to devastating outcomes. Lives depend on consistent production of expertly designed particles for effective airbag inflation.

Shepherd Chemical is the world's leading supplier and trusted developer of Basic Copper Nitrate (BCN) to the airbag market. We understand the importance of delivering just-in-time, precision engineered and highly reliable inorganic chemicals. Our expertise in metal chemistry allows us to precisely design particles to meet specific requirements in surface area, particle size and density—all of which impact the kinetics, temperature, and ultimate speed of airbag inflation.

We focus on particle engineering so you can focus on the road ahead.

