

CREDENTIALS

40+ years of experience in corrosion prevention.

Client support in 50+ countries.

Chair key task group at NACE International.

MEMBERSHIPS



Zerust Flange Saver®
Zerust ReCAST-R™
2012: Winner of the MP
Readers' Choice NACE
Corrosion Innovation of
the Year award

Protection of Void Spaces & Enclosures

CORROSION MANAGEMENT FOR TANKS AND PONTOONS

The Problem

Many pieces of equipment, structures, assemblies etc., have geometries that present unique challenges for corrosion protection. This includes structures with large void spaces like tank and vessel interiors; tubular structures like heat exchangers and pipes; and assemblies/parts with internal surfaces in recessed areas that are not in line of sight of the openings.



The Solution

Zerust Zerion FVS is a highly cost-effective corrosion mitigation solution for difficult to protect spaces, voids and enclosures.

Zerion FVS is a versatile new corrosion inhibitor specifically designed to protect ferrous metals in aggressive corrosion environments where there is the possibility of the accumulation of water, moisture and/or water ingress.

Zerion FVS provides unique dual action corrosion protection. This new dimension of effectiveness makes FVS the best in class in the market today.

Zerion FVS's two forms of protection:

1. Vapor Corrosion Inhibitors (VCIs) to protect the interiors of "air space" voids containing exposed metal surfaces on welded joints, in crevices, at coating holidays, etc.
2. Soluble Corrosion Inhibitors (SCIs) that mitigate corrosion from moisture accumulation or the ingress of water. This combination penetrates gaps and interstices inside of enclosed voids to provide comprehensive coverage.

Protection of Voids/Enclosures

The Zerion FVS VCI chemistry actively protects exposed steel from corrosion in large volume voids and enclosures. There are multiple delivery mechanisms and product packages that can be adapted to the geometry of the structure being protected.

Zerion FVS can be used for either short term or long term protection.



Zerust Zerion FVS ready-to-use mesh sleeves pictured above.



Benefits

Easy-to-use and versatile system.

Corrosion protection for voids and interstices that are impossible to protect with traditional methods.

VCI's offer non-permanent corrosion protection at the molecular level that is a more cost-effective and eco-friendly alternative to replacing corroded parts.

May be combined with simple monitoring procedures to ensure effectiveness of the solution.

Product Properties

Appearance: Off-white powder

Packaging: Mesh Sleeve, pail or drum

Safety & Handling

Avoid contact with eyes and skin through use of safety glasses and gloves

If dust is generated ensure adequate ventilation or use dust mask to prevent inhalation

See Safety Data Sheet (SDS) for more information

Storage

Shelf life is 36 months

Store in a sealed container in a dry, ventilated warehouse at temperatures below 40°C (105°F) without exposure to direct sunlight.

Part Numbers

Zerion FVS-S2 Packet	375-F-00204
Zerion FVS-B15 Pail	460-F-00001
Zerion FVS-B165 Drum	460-F-00007

Product Use

The ready-to-use mesh packets are primarily meant for dry VCI application where there is also a risk of condensation or water ingress. The vapor space protection volume is provided in the table below. For aggressive environments with 1 ppm or higher level of acidic gases, Zerion FVS should be used in combination with Zerion AutoFog®. In the event of water ingress/accumulation, FVS will dissolve out of the packaging and neutralize the threat up to the volume of water indicated in the usage table.

For use of Zerion FVS as a water diluted solution for hydro static testing or for tank SSB protection, it is recommended you contact Zerust Oil & Gas for technical support and sizing recommendations.

FVS does not contain phosphates and is readily compatible with most industrial water treatment processes. Dispose of in accordance with local and national regulations.

The number of packets required for application is determined by the time frame, corrosiveness of the environment and the amount of water present.

Product Sizes & Specifications

Product Name	Description	Application Guide
Zerion FVS-S2	FVS in mesh packet	Place in center of void and seal tightly. Provides approximately 2-3 m ³ volume* of protection.
Zerion FVS-B15	Bulk powder in pails 15 kg/pail	Dilute with water** to use as slurry.
Zerion FVS-B165	Bulk powder in drums 165 kg/drum	Mixing ratio of 0.5% to 15% (w/v) depending on application.

* Volume of protection is limited to 1m radius from the mesh sleeve.

** Best performance is obtained with DI, RO or potable water with a chloride level less than 150ppm

Duration of Protection

Zerust® Zerion® FVS ready-to-use mesh sleeves typically provide 1-2 years of corrosion protection depending on how well the enclosure is sealed.

Order Specifications

Please contact your sales representative for the correct product for your application.

Warranty and Disclaimer Information:

We guarantee our products conform to documented quality specifications. Product information subject to change without notice. We make no warranty of any kind expressed or implied as to the effects of use (including, but not limited to, damage or injury). Before use, Buyer/User shall determine suitability of the product for its intended use, and Buyer/User assumes all risk and liability in connection therewith. All statements, technical information and recommendations contained herein are based on testing and experiences NTIC believes to be reliable, but the accuracy or completeness thereof is not guaranteed. Buyer/User agrees that, if product proves to be defective, Seller's obligation shall be to replace or refund the purchase price of such product at Buyer's option. Seller shall not be liable in tort or contract for any loss or damage, incidental or consequential. See www.zerust.com/warranty

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