

QC Metal Pickling
1201 – 7th Street
East Moline, IL 61244
Phone: (309) 755-1472
Fax: (309) 755-1473

Vision Pickling & Processing
9341 – State Route 23
Waterman, IL 60556
Phone: (815) 264-7755
Fax: (815) 264-7778

PRODUCT INFORMATION SHEET
SHELF LIFE – OIL RUST PREVENTATIVE
(Water Based Rust Inhibitor)

After the pickling process, our water-soluble oil rust preventative is applied by complete submersion in our oiling tank. All surfaces of metal are 100% coated. Each fixture of oiled product is allowed proper time to drain and dry, leaving a coating of oil on all surfaces. When the steel is rebundled our standard operating procedure is to completely spray an extra coating of the same rust preventative to the outside extremities of each bundle. This extra coat is to help keep the steel properly protected during the shipping of the material to our customer. If our pickled and oiled product is kept both dry and clean the shelf life of this process should be 4 to 6 months. The care and conditions that the steel is subject to during shipping and storing will directly determine the longevity of the shelf life of our oil coating. There are some conditions that can shorten the shelf life of pickle and oiling.

- 1) Material getting wet.
Result: Oil will rinse off of steel leaving bare metal to rust.
- 2) Material exposed to dirt and excessive dust.
Result: Dirt and dust will adhere to oil coating. This will dry out rust preventative leaving steel exposed.
- 3) Oil rubbed off of steel by wet/dirty tarps. (VPP & QCMP offer rolls of plastic to cover clean steel prior to tarping.)
- 4) Processed steel exposed to severe and continuous temperature changes.
Result: Steel can condensate which can eventually rinse off rust preventative exposing bare metal and reducing effectiveness.
- 5) Individual pieces of processed steel being handled for fabrication purposes.
Result: Steel having coating wiped off or being contaminated by dirty gloves or by manufacturing equipment leaving exposed bare metal or contaminate caused rusting.
- 6) Contaminated manufacturing equipment that comes in contact with clean steel. Eg. Power conveyors, saw coolants, bending equipment, etc.
Result: Rust preventative coating is compromised or removed from clean surface, which exposes material to premature rusting.

It must be noted with proper handling and good judgement by all companies involved there should be no problems with shelf life to the end users of our pickled and oiled product. Since 1982 based on the volume of steel that we process, it has been proven that our oil rust preventative does an excellent job. It offers protection with weldability and can easily be rinsed off for painting applications. Our product is designed to offer these qualities. To apply an alternative coating to extend long term shelf life would decrease the ability to maintain the user friendly applications this product offers. Many long term rust preventatives would require a cleaning process prior to manufacturing and painting that would exceed most paint line wash systems capabilities. Excessive fuming would also be a detrimental factor for welding applications. With our consistent turn around times and coordinated scheduling between all companies, the end users of our pickling and oiling product should be able to manufacture a fresh pickled and oiled product without storing it for long periods of time.

In some applications, covering loads with plastic helps keep transportation tarps off of the clean steel. Some material can be shrink wrapped for added protection. Extra oil can be applied to exteriors of bundles on material known to need extra shelf life. In most instances the only area where surface rust problems can occur are on the outside extremities of the bundles. The inside pieces of steel will generally remain rust free.

Vision Pickling & Processing and QC Metal Pickling will always guarantee a top quality pickled product. What we cannot control is the handling and conditions our products are exposed to after leaving our facility. We always try and educate all parties involved of the importance of this steel remaining dry, clean and in the same condition as when it leaves our company.

As always we encourage people to come and see our companies to more easily witness and explain our operation and procedures. If you have any questions, please do not hesitate to call me for more detailed information regarding our pickle and oil process.

Steven F. Whitney
President

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PRODUCT INFORMATION SHEET
SHELF LIFE – SYNTHETIC RUST PREVENTATIVE (SRP)
(Water Based Rust Inhibitor)

After the pickling process, our water-soluble synthetic rust preventative (SRP) is applied by complete submersion in our SRP tank. All surfaces of metal are 100% coated. Each fixture of SRP product is allowed proper time to drain and dry, leaving a coating on all surfaces. When the steel is rebundled after processing our standard procedure is to completely spray an extra coating of the same rust preventative with a higher concentrated mixture to the outside extremities of each bundle. If our SRP product is kept both dry and clean the shelf life of this process should be 4 to 6 months. The care and conditions that the steel is subject to during shipping and storing will directly determine the longevity of the shelf life of our SRP coating. There are some conditions that can shorten the shelf life of the synthetic rust preventative.

- 1) Material getting wet.
Result: SRP will rinse off of steel leaving bare metal to rust.
- 2) Material exposed to dirt and excessive dust.
Result: Dirt and dust will adhere to SRP coating. This will dry out rust preventative leaving steel exposed.
- 3) SRP rubbed off of steel by wet/dirty tarps. (VPP & QCMP offer rolls of plastic to cover clean steel prior to tarping.)
- 4) Processed steel exposed to severe and continuous temperature changes.
Result: Steel can condensate which can eventually rinse off rust preventative exposing bare metal and reducing effectiveness.
- 5) Individual pieces of processed steel being handled for fabrication purposes.
Result: Steel having coating wiped off or being contaminated by dirty gloves or by manufacturing equipment leaving exposed bare metal or contaminate caused rusting.
- 6) Contaminated manufacturing equipment that comes in contact with clean steel. Eg. Power conveyors, saw coolants, bending equipment, etc.
Result: Rust preventative coating is compromised or removed from clean surface, which exposes material to premature rusting.

It must be noted with proper handling and good judgement by all companies involved there should be no problems with shelf life to the end users of our pickled and SRP product. Over the past ten years, based on the volume of steel that we process, it has been proven that our synthetic rust preventative does an excellent job. It offers protection with weldability and can easily be rinsed off for painting applications. Our product is designed to offer these qualities. To apply an alternative coating to extend long term shelf life would decrease the ability to maintain the user friendly applications this product offers. Many long term rust preventatives would require a cleaning process prior to manufacturing and painting that would exceed most paint line wash systems capabilities. Excessive fuming would also be a detrimental factor for welding applications. With our consistent turn around times and coordinated scheduling between all companies, the end users of our pickling and SRP product should be able to manufacture a fresh pickled product without storing it for long periods of time.

In some applications, covering loads with plastic helps keep transportation tarps off of the clean steel. Some material can be shrink wrapped for added protection. To achieve maximum shelf life from the SRP coating it is recommended to keep loads covered with plastic to keep dust and air contaminants from adhering to the rust preventative coating while being stored in a warehouse environment. Extra SRP can be applied to the exteriors of bundles on material known to need extra shelf life. In most instances the only area where surface rust problems can occur are on the outside extremities of the bundles. The inside pieces will remain rust free due to being kept clean from exposure.

Vision Pickling & Processing and QC Metal Pickling will always guarantee a top quality pickled product. What we cannot control is the handling and conditions our products are exposed to after leaving our facility. We always try and educate all parties involved of the importance of this steel remaining dry, clean and in the same condition as when it leaves our company.

As always we encourage people to come and see our companies to more easily witness and explain our operation and procedures. If you have any questions, please do not hesitate to call me for more detailed information regarding our pickle and SRP process.

Steven F. Whitney
President

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Product Data Sheet
Synthetic Rust Preventative “SRP”
(Water Based Rust Inhibitor)

Typical Properties:

Specific Gravity @ 60° F	1.01
Pounds per Gallon	8.41
Color	Lt. Amber
Odor	slight
Flash Point	none
Film Type	Dry to the touch
Freeze Point	25° F

SRP is a unique water based rust inhibitor system to be applied to pickled steel for indoor storage. Storage duration we believe can be up to six months provided parts do not come in direct contact with water. Lab analysis has shown 100% rust protection for thirty days in a 100% humidity cabinet environment. Application of this solution is by complete submersion to insure that all surfaces have complete coverage. Due to the polar nature of SRP, hard to reach threads and machined surfaces are quickly and easily penetrated to form an even coating. This is a synthetic amine complex product, not a petroleum distillate. There is a distinct advantage for welding processes because the solution has no flash point with minuscule fuming given off by thermal decomposition.

After application, parts should then be stored indoors or under shelter where they will be protected from rain or direct water contact. Water contact will resolublize the coating and reduce effectiveness.

Cleaning can easily be accomplished by a warm water wash and rinse. Surfaces should be cleaned prior to application of paint or other coating material to insure good adhesion.

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**Product Test Results
Synthetic Rust Preventative “SRP”
(Water Based Rust Inhibitor)**

Attn: Vision Pickling & Processing Customers

We are pleased to announce a new synthetic rust preventative “SRP” that we believe may be more suited for some of your specific pickling requirements. (See attached Product Data Sheet)

Vision Pickling & Processing has run extensive R & D tests to insure excellent rust preventative qualities and weld-ability while remaining an environmentally friendly product. For example we have run tests which will give insight into the amount of fumes generated upon welding. The quantity of SRP remaining on a metal surface after being dipped in our SRP solution, was weighted before and after dipping. The resultant amount of residue left behind on the surface was 0.00035 grams per cubic inch. This is an extremely small quantity, but adequate to prevent rusting as we have demonstrated by lab tests and field trials.

Upon welding the amine complex residue will burn completely to form carbon monoxide, carbon dioxide, water, and oxides of nitrogen. The amount of fumes generated will be extremely small and should pose no harm to individuals. This product is significantly safer to weld on than any other rust preventatives which leave behind heavy hydrocarbon films, sometimes containing barium, after the evaporation of a solvent.

The SRP solution has been designed to offer excellent short term rust protection for ferrous metals, easy clean-ability, with the environment in mind. There are no hazardous chemicals in this solution. The fumes given off by the thermal decomposition of SRP during welding are extremely small. The fumes should not be dangerous, however a small amount of air movement is recommended.