



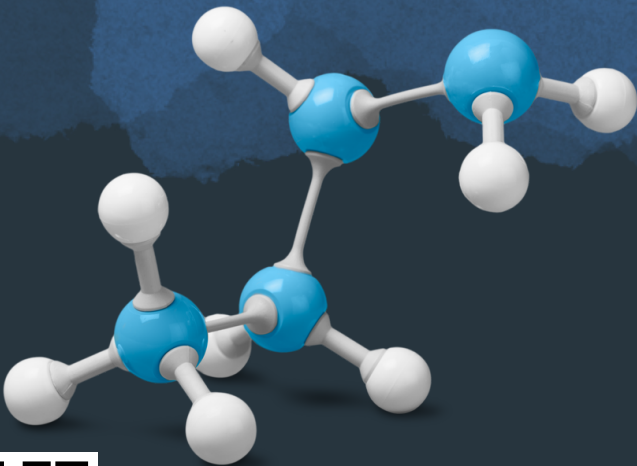
Triazine

H₂S scavenger

Customized high performance products

we continually challenge the status quo to create superior products for our customers

- Triazines in a wide range of concentrations and formulations.
- Blends of triazines with products used in oil and gas applications such as scale inhibitors, methanol and various specialty additives.
- Tailored products to meet customer end-use requirements e.g., winterized formulations.
- Product development for specific applications.
- Toll manufacturing of triazines using customer's raw materials upon request.
- Ability to rapidly manufacture in spec products to ensure just in time delivery by truck and rail.



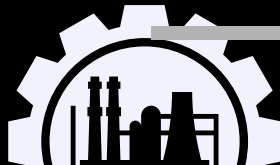
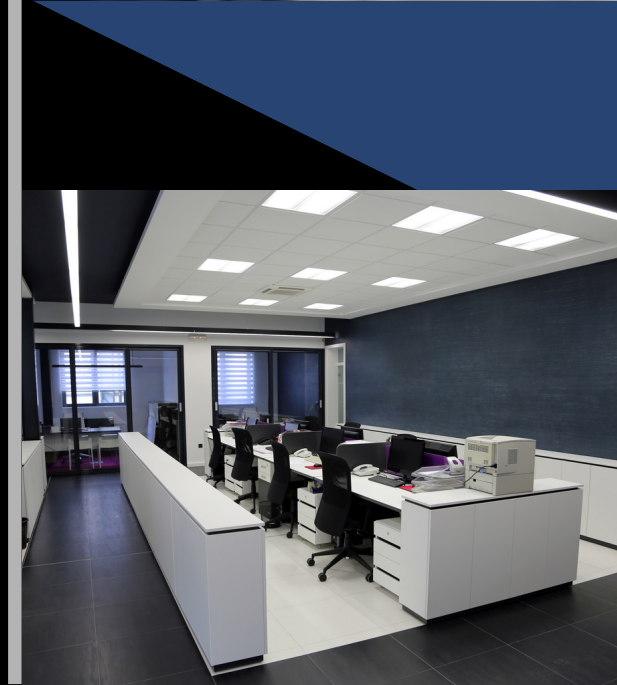


ABOUT US

Selena Company is the only producer of Hydroxyethyltriazine (hexahydro-1,3,5-tris [2-hydroxyethyl]-s-triazine), in the region. With several years of brilliant experience in production and global export, we are proud to offer our high-quality product to our valued customers.

When use as a hydrogen sulfide scavenger , MEA-triazine primarily eliminates the H₂S produced by exploiting oil and gas.

Hydroxyethyltriazine is also a biocide that is widely used as a preservative in various industries such as paint and coating, adhesive, water treatment, herbicide, electroplating, paper making, metal processing. It has excellent antimicrobial and antifungal properties and can effectively prevent the growth of bacteria, fungi, and algae.



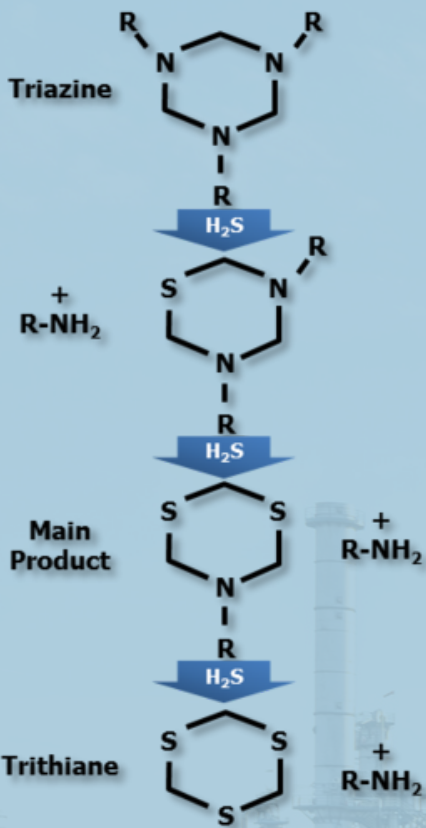
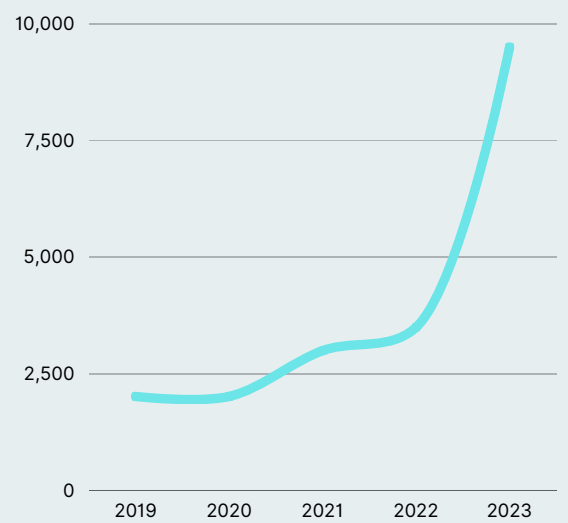


Figure 3: Triazine Reaction with H₂S



We have a state-of-the-art production facility equipped with modern technology and safety systems. Our production capacity is 10,000 tons per year, which can meet the growing demand of our customers. We also have a quality control laboratory that monitors the product quality at every stage of the production process. We follow the international standards and regulations for the production and handling of Hydroxyethyltriazine (hexahydro-1,3,5-tris[2-hydroxyethyl]-s-triazine).



Production growth chart

H₂S is often present in crude oil and natural gas fields and must be removed before making commercial use of such reserves.

This gas causes corrosion to the pipeline as crude oil coming from reservoirs are usually wet with entrained produce water.

The H₂S concentration in these reserves prior to treatment typically varies with location and is usually higher in natural gas than in crude oil reserves as hydrogen sulphide is a gas at NTP. In natural gas reserves, H₂S may vary from less than 100 ppm to 3,00 ppm. Permitted H₂S levels will also vary by location.

Hydrocarbon streams are treated to remove H₂S, mercaptans, or organic sulfides by using chemicals that will react with sulfide contaminants. These chemicals are called scavengers, or sweetening agents.

Hydroxyethyltriazine (hexahydro-1,3,5-tris[2-hydroxyethyl]-s-triazine), commonly called "triazines" are frequently used as H₂S, mercaptan, and organic sulfide scavengers. Most hydrocarbon reserves are treated continuously near the wellhead. Continuous treatment installations near the wellhead inject Scavengers, directly into the hydrocarbon pipeline. The injection system typically includes a chemical injection pump and piping tees or atomization nozzles to introduce the triazine into the pipeline.

Based on the stoichiometry of the scavenging reaction, a molar ratio of triazine to H₂S of 1:2 is considered as ideal. The amount of triazine actually required, however, will vary depending on a variety of factors including the amount of H₂S in the well, permissible H₂S limits, the well flow rate, temperature, etc.

Product	Chemistry	Solubility	Activity	typical pH	Description	Physical Appearance	
H2SCAV-01	MEA-Triazine	Water	>78%	9-12	Concentrated Triazine	Clear Liquid	
Product	Downhole	Wellhead	Process (Liquid)	Process (Gas)	Pipeline	Storage Tank	Bubble Tower
H2SCAV-01	Good	Good	Good	Excellent	Fair	Fair	Excellent

APPLICATIONS

Hydroxyethyltriazine (hexahydro-1,3,5-tris[2-hydroxyethyl]-s-triazine) has a wide range of applications in various industries due to its biocidal and preservative properties.

Some of the main applications are:

PAINT AND COATING

Hydroxyethyltriazine (hexahydro-1,3,5-tris[2-hydroxyethyl]-s-triazine) is used as a preservative in paints and coatings such as latex paints, acrylic paints, water-based paints, wood coatings, metal coatings, and marine coatings. It prevents the growth of fungi and algae that can cause deterioration, staining, or corrosion of the substrates. It also improves the performance and durability of the paints and coatings.



ADHESIVES

Hydroxyethyltriazine (hexahydro-1,3,5-tris[2-hydroxyethyl]-s-triazine) is used as a preservative in adhesives such as epoxy adhesives, polyurethane adhesives, acrylic adhesives, and cyanoacrylate adhesives. It prevents the growth of bacteria and fungi that can cause degradation, loss of adhesion, or odor of the adhesives. It also extends the shelf life and storage stability of the adhesives.



WATER TREATMENT

Hydroxyethyltriazine (hexahydro-1,3,5-tris[2-hydroxyethyl]-s-triazine) is used as a biocide in water-treatment systems such as cooling towers, boilers, heat exchangers, pipelines, and reservoirs. It prevents the growth of bacteria, fungi, and algae that can cause biofouling, scaling, corrosion, or contamination of the water systems. It also reduces the need for frequent cleaning and maintenance of the water systems.

The basic mode of Hydroxyethyltriazine (hexahydro-1,3,5-tris[2-hydroxyethyl]-s-triazine) action centers on its ability to kill selected plants by destroying photo-synthetic. S-triazine herbicides act by inhibiting primary events in photosynthetic in the chloroplast by binding to the D-1 protein in photosynthetic electron transport. This binding stops photosynthesis.

HERBICIDE



PAPERMAKING

It can be used in the mixing tank, the slurry pool, the high overflow box, the thickener and the white pool in front of the pulp machine. It can reduce fiber degradation and increase paper strength. Depending on the process, continuous drip or impact dosing can be used.

METAL PROCESSING

Hydroxyethyltriazine (hexahydro-1,3,5-tris[2-hydroxyethyl]-s-triazine), is the most commonly used and most cost-effective formaldehyde-condensate biocide for metalworking fluids. Water-soluble and stable at moderately alkaline pH levels, it is the cyclic trimer made from formaldehyde and monoethanolamine (MEA). It is usually supplied as a 78% active aqueous solution, and its use can add significant alkalinity to a system. Hydroxyethyltriazine can be added tankside to an in-use fluid or incorporated into an aqueous concentrate. Viewed primarily as an antibacterial agent, its customary dose rate is ~1500 ppm (0.15%) in a use-diluted fluid.

Recommended dosage

Industrial Category Dosage	Papermaking Industry	Oil Industry	Metalworking Industry	Latex Paint and Coating Industry	Electroplating Industry; Washing Industry	Metalworking Fluid Crude Oil Plant
Dosage	0.05-0.1%	0.01-0.05%	0.15-0.3%	0.2%	0.2-0.3%	2-4%

Package

