

NuFlo® DeScale 730

Technical Data Sheet

NuFlo® DeScale 730

Descaling solution for Calcium Carbonate and other Calcium, Iron, Copper, Manganese and Zinc metal complexes and scales

Description:

NuFlo® DeScale 730 is a highly concentrated, high strength scale remover. It is effective at removing Calcium, Iron, Copper, Manganese and Zinc metal complexes and scales from oil and gas applications including wells, perfs, pumps, rods, tubing, and flowlines/pipelines. **NuFlo® DeScale 730** is highly effective on Calcium Carbonate (CaCO_3) and other metal complexes. **NuFlo® DeScale 730** operates at a high pH and will not harm steel surfaces and eliminates other descale options that require extremes in low pH to be effective on Calcium Carbonate scale.



NuFlo® DeScale 730 is also used to prevent, via continuous injection, the build-up of carbonate, sulphate and other types of scale from forming due to its unique chelation ability keeping the salts soluble in the water phase.

NuFlo® DeScale 730 has been designed to have an extremely high thermal stability allowing for scale removal at temperatures as high as 550°F, making it an excellent choice for steamflood operations or ultra-high temperature downhole conditions. The addition of pH-boosting components to the formulation allows **NuFlo® DeScale 730** to maintain high pH and effectiveness over long periods when neutral and mildly-acidic conditions tend to develop.

NuFlo® DeScale 730's pH-boosters help to prevent corrosion and bacteria growth.

Product Benefits

- Effective on Calcium, Iron, Copper, Manganese and Zinc metal complexes and scales
- Economical - highly concentrated for low ppm usage
- No corrosion issues on steel tubulars and casings

Physical Properties



NuFlo[®] DeScale 730

BULK DENSITY	11.08 lbs/.gal
SPECIFIC GRAVITY@ 20 C	1.328 g/cm ³
SOLUBILITY IN WATER	100%
FREEZE/THAW STABLE	YES
ODOR	Mild
THERMAL STABILITY in °F	Up to 550 °F
EVAPORATION RATE (n-BuAc=1)	
MELTING POINT / FREEZING POINT	0 °C (32 °F)
BOILING POINT	> 100 °C (212°F)
pH	12.5
APPEARANCE and COLOR	Clear, colorless
VAPOUR PRESSURE, mm Hg	23 hPa

Availability: 5-gallon, 55-gallon containers and 275-gallon tote-bins and bulk tankers.

Shipment: UN3266 Corrosive liquid, basic, inorganic, n.o.s (Sodium Hydroxide), 8, PG III, ERG #154

Storage: Keep out of direct sunlight. Keep from freezing. Store between 40-120°F.

Disposal: Dispose of in accordance with local, state, and federal regulations.

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EMERGENCY OVERVIEW:

This product may cause serious damage to the eyes and is extremely harmful if swallowed.

SAFETY:

Please make sure you have read and understand the product label and MSDS before using this product. Avoid breathing vapours, spray or mists. Use only with adequate ventilation. Wash thoroughly after handling. Observe label precautions.

About NuFlo® DeScale 730

NuFlo® DeScale 730 overcomes prior problems of other Calcium Carbonate scale treatment chemistries by creating a metal carbonate scale treatment solution that is effective at dissolving metal carbonate scales such as Calcium, Iron, Manganese and Zinc metal complexes and scales in a high pH (alkaline) environment.

NuFlo® DeScale 730 works to dissolve inorganic scale, while simultaneously penetrating and dissolving scale that is partially covered by organic deposits such as paraffins and asphaltenes. However, **NuFlo® DeScale 730** works best when used on inorganic scale that has had organic deposits removed from their surfaces by NuGenTec's paraffin and asphaltene remover, **NuFlo® 187**.

By using a proprietary dissolving chemistry with pH-boosting additives, **NuFlo® DeScale 730** helps prevent conditions in which neutral and acidic conditions can perpetuate corrosion issues. **NuFlo® DeScale 730** is alkaline and safe on typical surfaces and metals found in wells, perforations, pumps, rods, tubing and in pipelines where traditional low pH acid treatment methods, such as Hydrochloric Acid, are unsafe. The pH of **NuFlo® DeScale 730** will keep working in downhole conditions where acid-producing bacteria thrive.

NuFlo® DeScale 730 Product Features

- 99% efficiency in dissolving Calcium Carbonate scale
- Built in buffering ability to remain in its effective pH range. Stays effective in a wide pH and temperature range.
- Added corrosion protection.
- Dissolves metal carbonate scales: Calcium, Iron, Manganese, and Zinc

NuFlo® DeScale 730 Material Compatibility

<u>Material</u>	<u>Concentration</u>	<u>Compatibility</u>
Aluminium:	Up to 100%	Incompatible
Brass:	5% to 100%	Incompatible for extended contact (>8 hours)
Brass:	Up to 5%	Acceptable short-term contact (<24 hours)
Bronze:	5% to 100%	Incompatible for extended contact (>8 hours)
Bronze:	Up to 5%	Acceptable short-term contact (<24 hours)
Copper:	10% to 100%	Causes discoloration (<24 hours),
	Incompatible (>24 hours)	
Copper:	Up to 10%	Acceptable short-term contact (<24 hours)
Galvanised Steel:	5% to 100%	Incompatible for extended contact (>8 hours)
Galvanised Steel:	Up to 5%	Acceptable short-term contact (<24 hours)
Zinc:	5% to 100%	Incompatible for extended
		contact (>8 hours)
Zinc:	Up to 5%	Acceptable short-term contact (<24 hours)

NuFlo® DeScale 730 Warnings

- **NuFlo® DeScale 730** has very low environmental toxicity.
- **NuFlo® DeScale 730** contains a hydroxide that will saponify (turn to soap) any fats, including those in skin. **NuFlo® DeScale 730** is dangerous in contact with eyes because of the potential for saponification.
- **NuFlo® DeScale 730** should be used recommended concentrations for optimal effectiveness and requires sufficient contact time to react and fully dissolve scales.
- **NuFlo® DeScale 730** produces no vapours since it is composed of inorganic materials. Good chemical hygiene should be followed since irritation can develop with prolonged contact time.