

Enviro-Syn[®] MSD-30[™] is a high-performance metal sulfide dissolver and descaler designed to efficiently remove extremely high amounts of metal sulfide scales including: iron(II) sulfide (FeS), zinc sulfide (ZnS), and lead(II) sulfide (PbS) without the formation of hazardous, corrosive and toxic hydrogen sulfide (H₂S).

Metal sulfides are an intrinsic source of hydrogen sulfide and cause formation damage reducing production, hosts bacteria, and fouls piping, tanks and process equipment all greatly reducing the efficiency and profitability of operations.

FEATURES & BENEFITS

- ✓ High rate of dissolution
- ✓ High dissolving capacity of FeS
- ✓ Non-damaging to metal surfaces and seals
- ✓ Reduced mechanical remediation operation times
- ✓ Decrease decommissioning timelines and costs
- ✓ Increase production and revenue
- ✓ Non-damaging to formation and cost effective
- ✓ Compatible with typical elastomers (e.g., Viton, Nitrile and EPDM)

APPLICATIONS

DOWNHOLE SCALING:

- ✓ Near wellbore and formation damage
- ✓ Downhole tubing, equipment and pumps
- ✓ Injection wells

SURFACE SCALING:

- ✓ Onshore and offshore topside processing and production treatments
- ✓ Remediation of midstream pipelines and associated equipment
- ✓ Heat exchangers and pipelines
- ✓ Industrial boiler systems and dehydration units
- ✓ Water cooling systems and distribution piping
- ✓ HVAC and fire systems
- ✓ Separators, hydrocyclones, degassers

NOTE: Enviro-Syn MSD-30 is designed for surface and low temperature applications up to 70°C (158°F).

Normal treatment times vary between 4 to 24 hours depending on temperature and agitation.

PHYSICAL PROPERTIES

Appearance:	Clear amber liquid
Specific Gravity:	1.18
Freezing Point:	-6.4°C (20.5°F)
Boiling Point:	> 110°C (230°F)
pH:	8 – 10
Solubility:	Soluble in water
Shelf Life:	6 months

SAFETY, STORAGE & HANDLING

- ✓ Stored in sealed drums or IBC totes
- ✓ Fittings and valves should be HDPE, brass or stainless steel
- ✓ Avoid freezing and store below 30°C (86°F)
- ✓ Recommended shelf life is 6 months
- ✓ Consult SDS for additional information and PPE requirements

Outstanding HSE profile

- No generation of H₂S
- Reduced toxicity compared to THPS biocide
- Non-corrosive to skin
- Low fuming
- Non-oxidizing
- Non-regulated for ground transport (USDOT)

TOTAL SOLUBILITY

Table 1. Total solubility of Enviro-Syn MSD-30 on a variety of scales at 60°C (140°F).

Chemical	Scale	Total Solubility (kg/m ³)	Total Solubility (lb/gal)
75% THPS	FeS	3	0.025
MSD-30	FeS	23.5	0.196
MSD-30	ZnS	28.2	0.235
MSD-30	PbS	39.5	0.330

CORROSION RATES

With ultra-low metal corrosion properties, Enviro-Syn MSD-30 has corrosion rates well below oilfield industry accepted values on typical oilfield alloys.

Table 2. Corrosion rates of Enviro-Syn MSD-30 concentrate.

Temp (°C /°F)	Coupon	Time (hr)	Corrosion (mm/yr)	Corrosion (lb/ft ²)
40 / 104	1018CS	24	1.489	0.007
40 / 104	J-55	24	1.612	0.007
40 / 104	P-110	24	1.230	0.005
40 / 104	QT-900	24	1.755	0.008
60 / 140	1018CS	16	12.155	0.036
60 / 140	J-55	16	11.999	0.035
60 / 140	P-110	16	6.674	0.020
60 / 140	QT-900	16	8.904	0.026
70 / 158	316SS	4	0.051	0.000
70 / 158	L-80	4	14.340	0.010
70 / 158	P-110	4	25.493	0.018
55 / 131	316SS	168	0.000	0.000
55 / 131	A7075	168	0.403	0.004

NOTE: Oilfield industry typically accepts a corrosion rate less than 0.050 lb/ft² at 6 hours. Coiled tubing typically accepts a corrosion rate less than 0.020 lb/ft² at 6 hours.

Talk to us today about our revolutionary products available globally.

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