

A highly concentrated single step cleaner that breaks hydrogen bonds and prevents emulsified materials from re-bonding to the cleaned surface.



RAW's non-toxic, non-flammable Casing Cleaner not only cleans and de-scales, it also reduces opportunities for bacteria to oxidize dissolved ferrous

RAW Biochem Is

Readily Biodegradable
Non-Reactive
Non-Toxic
Non-Corrosive
Non-Hazardous
Not Flammable
Contain No VOC's

RAW Biochem Products Do NOT Contain

Petroleum Distillates
Glycol Ethers
Caustics
Ozone Depleting Agents
Nonylphenols
Endocrine disruptors

www.rawbiochem.com

Casing Cleaner is a revolutionary, non-toxic, bio-based colloidal solution that simplifies removal of residuals from the well bore and is also used for the maintenance of oil, gas and water wells.

Conventional methods of removing oil-based filter-cake include multiple treatments using a variety of enzymes, mineral acids and oxidizers in an effort to rid the well bore of residue.

Casing Cleaner is a single step, highly concentrated, non-flammable, multi-purpose well bore cleaner that de-scales and aids in the removal of:

- Mud
- Pipe Dope
- Oil
- Sand
- Barite
- Paraffin
- Other Solids from Casing & Production Tubing

Casing Cleaner is also used to eliminate iron bacteria. The casing cutter treatment reduces opportunities for bacteria to oxidize the dissolved ferrous iron and with that it also eliminates the resulting biological slimes that plug screens and degrade the well's ability to flow freely

Casing Cleaner is made using proprietary technology to create plant based "micelle" emulsifiers and dispersants that disrupt the carbon bonds of hydrocarbons and other organic materials on contact. Dirt contained in a water-based mud adheres to steel surfaces in part via hydrogen bonding. The surface activity of Casing Cleaner's nano-emulsifiers allow them to penetrate and break these hydrogen bonds, releasing the dirt from the steel. The interaction between these nano-scale micelles and surfactants also prevent the emulsified materials from re-depositing on cleaned surface.

RAW Biochem Casing Cleaner counters the need for multiple-step, conventional, caustic and environmentally hazardous chemicals typically now in use.

TECHNICAL DATA SHEET

Description

RAW Casing Cleaner is ideal for use in well formations, waste water retention lagoons, slurry pits, paraffin removal, surface pipe cleaning, water well maintenance, & for bio-remediation

The active ingredients are safe to use on all substrates and will not damage steel, glass, fiberglass or plastic.

Physical State

Liquid

Colour	Opaque White or Amber
Odour	Soapy
pH	4.1 – 4.4
Base	Plant Extracts
Persistence & Degradability	Readily Biodegradable

Directions for Use

RAW's Casing Cleaner makes quick work of well bore clean-up.

The appropriately diluted product is pumped or poured directly into the well bore and then swabbed or pumped to distribute it to the entire bore diameter.

It should be worked in with an adequate amount of product above the swab (3% - 5% of total solution) to facilitate a thorough saturation of the scale.

Agitation is the key to a successful treatment and can be aided by circulation via pressure pump, air sparging or jetting.

C.H.A.T.

Chemical: Unlike typical petrochemicals, RAW formulations may not perform as well with higher concentrations of product than they would with higher dilution rates. In a new process or application, trials are strongly recommended to achieve the correct chemical concentration.

Heat: The optimum temperature ranges from 43°C – 80°C. Product can be used in steam applications up to 490°C (540°F).

Agitation: Where applicable, agitation aids in dislodging soils from surfaces so they can be rinsed away.

Time: Dwell time is dependant on the application, heat and chemistry but generally speaking, longer dwell times enable more satisfactory results.