

### PRODUCT OVERVIEW

Cert-Solv 400NS is a high-performance, non-chlorinated solvent treatment designed to remove paraffin wax, asphaltenes, bitumen, and other heavy hydrocarbon deposits from oilfield and industrial systems. These deposits commonly restrict flow, reduce heat transfer efficiency, and complicate maintenance across production, processing, and oilsands operations.

Cert-Solv 400NS utilizes a balanced solvent, surfactant, and dispersant system to rapidly wet, penetrate, and mobilize hydrocarbon deposits while keeping loosened material dispersed to help reduce re-deposition and downstream fouling during cleaning operations. The formulation is low-foaming and dispersible in water, allowing it to remain effective in both neat solvent applications and aqueous or thermal circulation cleaning programs.

With a high flash point (>49°C) and low freeze point (<20°C), Cert-Solv 400NS offers improved handling characteristics compared to conventional light hydrocarbon solvents, supporting safer use and year-round field deployment. Cert-Solv 400NS is suitable for use in wells, vessels, separators, tanks, piping, heat exchangers, and other equipment affected by heavy hydrocarbon buildup.

### DIRECTIONS

Cert-Solv 400NS may be applied neat or diluted with water depending on deposit severity, system configuration, and cleaning method. The product remains active when dispersed in water, making it suitable for aqueous and heated circulation cleaning applications.

#### Batch / Clean-Out Applications

For heavy or tenacious hydrocarbon deposits, apply Cert-Solv 400NS as a concentrate to achieve maximum solvency and rapid deposit softening and removal. Contact time and concentration will vary depending on deposit composition, thickness, and operating temperature.

#### Circulation Cleaning

For circulation applications, dilute Cert-Solv 400NS at **3–10% by volume** in water, based on system volume and deposit severity. Heated circulation is recommended where possible to improve penetration and cleaning efficiency. Typical operating temperatures range from **40–95°C (105–200°F)**.

For more information – Contact your A.C.E. sales rep today!

### KEY BENEFITS

- Removes paraffin, asphaltenes, bitumen, and heavy hydrocarbon deposits
- Effective on adhesives, tar, grease, and heavy oils
- Water soluble for aqueous circulation cleaning
- Low-foaming formulation suitable for circulation systems
- High flash point for improved handling safety
- Helps reduce re-deposition during cleaning operations
- Supports efficient equipment turnaround and flow restoration

### HOW CERT-SOLV 400NS WORKS

Cert-Solv 400NS attacks hydrocarbon deposits through a combined solvency and dispersion mechanism. The solvent system penetrates and softens waxy and asphaltic deposits, while surfactants promote wetting and break adhesion to metal surfaces. Dispersants help keep mobilized material suspended in the cleaning fluid, reducing the likelihood of re-attachment or downstream fouling during circulation or flushing.

This controlled mobilization allows heavy hydrocarbon deposits to be removed more efficiently than mechanical or heat-only methods, while minimizing operational disruption.

### HEAVY HYDROCARBON DEPOSITS

Paraffin, asphaltenes, and related heavy hydrocarbons can precipitate due to temperature changes, pressure drops, blending effects, or fluid incompatibility. Over time, these deposits can:

- Restrict or block flow paths
- Reduce heat transfer and equipment efficiency
- Increase pressure drop and energy consumption
- Complicate maintenance and turnaround operations

Cert-Solv 400NS is engineered to address these challenges through effective chemical cleaning, supporting faster restoration of flow and improved operational reliability.

**SEE REVERSE SIDE**

### PHYSICAL PROPERTIES

APPEARANCE	Clear to slightly hazy, colorless liquid
ODOR	Odor of hydrocarbons
SPECIFIC GRAVITY @ 20°C	0.80 – 0.95
pH	N/A
FLASH POINT (TCC)	49°C
FREEZE POINT	Under -20°C
FOAMING TENDENCY	Low
WATER SOLUBILITY	Complete

### FIRST AID MEASURES

**IF SWALLOWED:**

Rinse mouth. Do NOT induce vomiting. Immediately call a poison center or doctor.

**IF ON SKIN (OR HAIR):**

Wash with plenty of soap and water. Remove contaminated clothing and wash before reuse. If skin irritation persists, get medical advice.

**IF INHALED:**

Remove person to fresh air and keep at rest in a position comfortable for breathing. Immediately call a poison center or doctor.

**IF IN EYES:**

Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. If eye irritation occurs, get medical advice.

**IN CASE OF FIRE:**

Use carbon dioxide, dry chemical powder, foam, water spray, or fog.

### WHMIS

