T-5 is a thermally activated calcium bentonite clay with a neutral pH (≈7). Its hardened clay particles (5–200 µm) and net negative charge from immobilized metal ions provide excellent cation exchange capacity, color removal, and heavy metal remediation. Fast-flowing and less prone to clogging than powdered media, T-5 is widely used as a filter bed component and general-purpose purification media.

SECTION 1: PRODUCT IDENTIFICATION

Product Name	T-5
CAS Number	1302-78-9 (Calcium Bentonite, thermally activated)
Chemical Name	Thermally Activated Calcium Bentonite Clay; Montmorillonite Clay
Activation	Thermal (heat) activation — NOT acid-activated. pH neutral.
GHS Classification	WARNING — STOT SE Cat 3 (dust, H335). Not classified as hazardous by mixture criteria.
Supplier	Cannagas Supply | 97 Turnpike Rd, Westborough, MA 01581 877-710-1965 | Sales@canna-gas.com

SECTION 2: PHYSICAL & CHEMICAL PROPERTIES

Physical State	Beige to off-white powder
Odor	Odorless
pH	≈7.0 (neutral) — safe for pH-sensitive applications
Particle Size	5–200 µm (hardened clay particles)
Flammability	Non-flammable
Flash Point	Not applicable

Bulk Density	~500–800 kg/m3
Solubility	Insoluble in water
Surface Activity	High — immobilized metal ions create net negative charge
Vapor Pressure	Not applicable (solid)
Appearance	Beige / off-white powder
VOC Content	None

SECTION 3: PERFORMANCE & APPLICATIONS

Primary Uses	Color removal; heavy metal remediation; oil purification; distillation prep; pesticide removal; winterization; filter bed component.
Adsorption Mechanism	Cation exchange via immobilized metal ions (net negative surface charge). Adsorbs cationic impurities, pigments, and metal ions.
vs T-41	T-5 is pH neutral — preferred when acidic conditions (T-41) are undesirable. Less aggressive than T-41 but gentler on pH-sensitive processes.
Adsorption Profile	Adsorption Selectivity: 5/10 | Adsorption Rate: 5/10 | Flow Rate: 3/10 | Binding Affinity: 8/10
Filter Bed Use	Commonly used as bottom layer in filter beds to stop smaller particle media from reaching the filter element.
Typical Dosage	5–10% w/w of feed. For clay:oil combination use: 10% carbon to clay ratio, 10% clay to oil. Warm oil to 90°C, mix 30 min, cool to 40°C, add solvent, filter.
Compatibility	Compatible with ethanol, hydrocarbon solvents, and oil matrices. pH neutral — does not acidify the process stream.

This TDS is for informational purposes only. Refer to SDS for complete hazard information.

SECTION 4: STORAGE & HANDLING

Storage	Sealed containers in cool, dry area. Protect from moisture — reduces performance.
Shelf Life	Indefinite in sealed, dry storage.
PPE	Dust mask, eye protection, gloves.

SECTION 5: SAFETY SUMMARY

GHS Signal Word	WARNING
Key Hazard	H335: May cause respiratory irritation (dust). pH neutral — minimal skin/eye chemical risk.
SDS Reference	Full SDS available. CHEMTREC: 1-800-424-9300.

DISCLAIMER: The information provided in this Technical Data Sheet is based on data believed to be accurate as of the issue date. Cannagas Supply makes no warranty regarding fitness for a particular purpose or accuracy of the information herein. Users are responsible for determining suitability for their specific application. Always refer to the Safety Data Sheet (SDS) for complete safety and regulatory information.