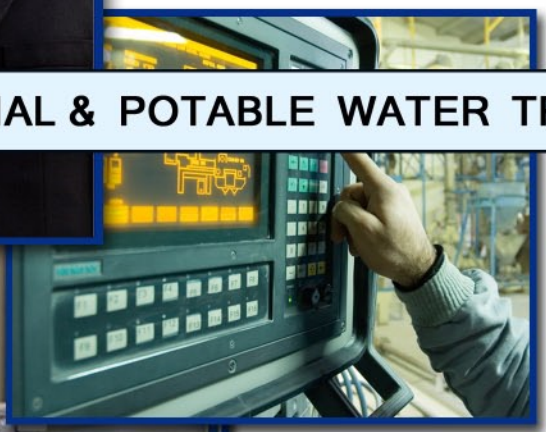
Turbidex™

HYPER-FILTRATION MEDIA



FOR INDUSTRIAL & POTABLE WATER TREATMENT SYSTEMS

Certified Standard 61 NSF The Public Health & Safety Company™

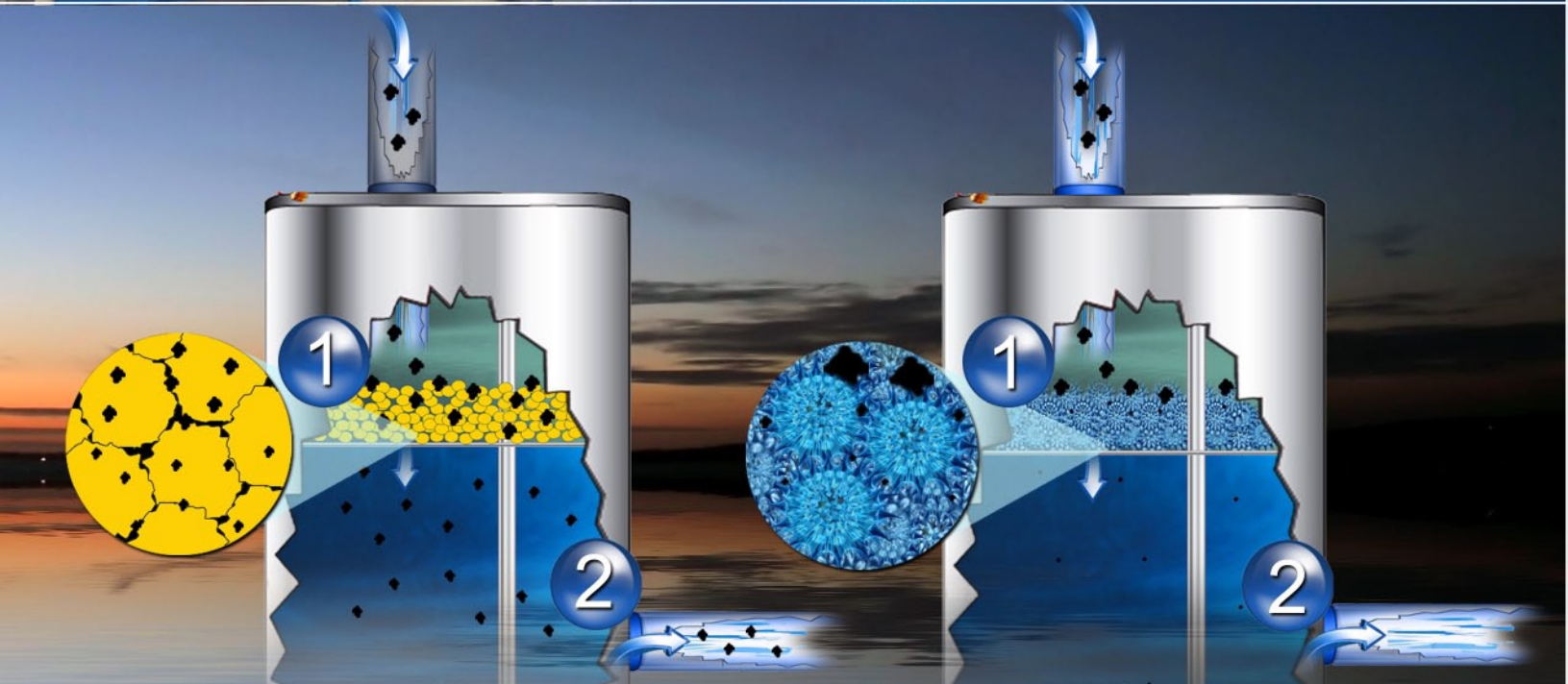
When you need Excellent Water

Turbidex™

HYPER–FILTRATION MEDIA

"When you need excellent water"

for INDUSTRIAL & POTABLE Water Treatment *systems*



SAND/MULTIMEDIA

1st & 2nd Generation Filtration

1. Suspended solids are mechanically strained with sedimentation and flocculation to 12-30 microns.
2. Filtrate often requires additional stages of filtration before it is suitable for use.

Turbidex™

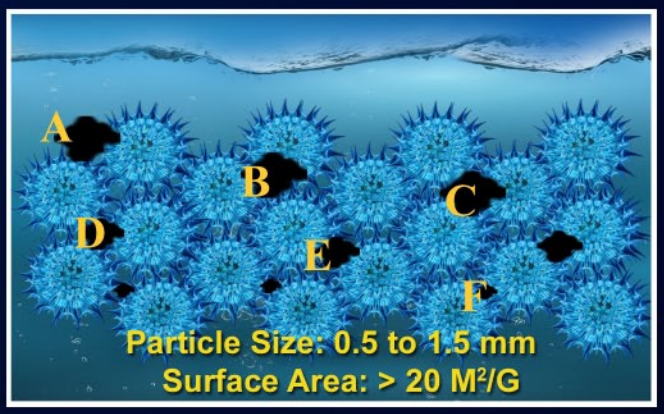
3rd Generation Filtration

1. Suspended solids are mechanically strained with Sedimentation, Flocculation, Physical Absorption, Electrostatic Absorption and ion-exchange down to 3-5 microns.
2. Quality of filtrate often reduces the need for additional down stream filtration.

The Science

Turbidex™

Vs. The Competition



PROCESS	TURBIDEX™	COMPETITION
A. Mechanical Straining	✓	✓
B. Sedimentation	✓	✓
C. Flocculation	✓	✓
D. Physical Absorption	✓	
E. Electrostatic Absorption	✓	
F. Ion-Exchange	✓	

	TURBIDEX™	MULTIMEDIA	SAND
Pressure Filters *	15-20	12-15	8-12
Gravity Filters *	4-5	4	2-3
Micron Efficiency	3-5µ	12-15µ	25-30µ
Loading Factor	2.8X	1.5X	X

* FLOW RATE gpm/ft²

OPERATING PARAMETERS

Bed depth: 30 – 48 inches
Freeboard: 50% of bed depth
Flow rate: 12 – 20 gpm/ ft²
Backwash rate: 14 – 18 gpm/ ft²
Replacement media ratio : 1:1

PHYSICAL CHARACTERISTICS

Color: off-White
Bulk Density: 50 lbs./ft³
Surface area: 14 to 25 m²/g
Mesh Size: 14 x 30
Uniformity Coefficient: 1.64

Turbidex™ is Certified with NSF The Public Health & Safety Company™ Standard 61

The Benefits

Hyper Filtration Efficiency

With filtration efficiency in the 3 to 5 micron range, Tubidex's enhanced performance results in down stream cost savings for chemicals, filter cartridges, membrane cleaning, membrane life, etc.

Higher Flow Rates

With nominal service flow rates up to 15 gpm/ft² in pressure filters, Turbidex™ allows significant savings in initial equipment costs when compared to traditional medias. Turbidex™ allows for peak flow rates up to 20 gpm/FT² Turbidex

Superior Water Clarity

Traditional sediment filtration media rely on mechanical straining to remove suspended solids for turbidity reduction. Turbidex™ filtration media incorporates straining as well as ion exchange, sedimentation and flocculation to produce crystal clear water down to <0.1 NTU of turbidity.

Water Savings

The loading capacity of Turbidex™ media is up to 1.5 times greater than multi-media and up to 2.8 times greater than sand filters. This results in longer run times with less frequent backwashing, resulting in significant water savings.

Lightweight Media

Weighing 50-70% less than traditional medias, using Turbidex™ will result in substantial freight savings.

Easier to Inventory and Install

A single media versus multiple medias simplifies ordering, shipping and warehousing. Loading one media allows for a quick and easy installation.

Industries Using Turbidex™

Industrial
Municipal
Commercial
Food & Beverage
Water Recycle
Aquaculture
Agriculture
Pharmaceutical
Manufacturing
Car wash

Turbidex™

MATERIAL SAFETY DATA SHEET

Issue Date: March 1994	Revised: 08/020/04	Revision No. 1

Section I. Product Identification

Product Name: ***TURBIDEX™ Filter Granules***

Chemical Name: Clinoptilolite Zeolite / Potassium, Calcium, Sodium Aluminosilicate, Hydrated

Formula: $(K_2, Ca2, Na_2)\ O\text{-}Al_2O_3\text{-}10SiO_2\text{-}8H_2O$

CAS Registry: 12173-10-3

Section II. Product Ingredients

NAME	PERCENT	OSHA PEL and/or ACGIH TLV
Natural zeolite mineral GRANULES	100	0.5 mg/m^3

Section III. Physical and Chemical Properties

BOILING RANGE	Not applicable
specific gravity	2.2 – 2.4
Evaporation Rate	Not applicable
Vapor Density (Air=1)	Not applicable
% Volatile weight	Not Applicable
physical Appearance	Off-white/green granules

Section IV. Fire and Explosion Data

flammability classification	Not Applicable
Flash Point	Not Applicable
Extinguishing Media	Not Applicable
Unusual fire and Explosion Hazards	None

Section V. Health Hazard Data

Summary: This product contains crystalline silica. Long-term inhalation of crystalline silica dusts may cause lung disease (silicosis). IARC, a unit of the World Health Organization, has stated, "there is limited evidence for the carcinogenicity of crystalline silica to humans." NTP and/or OSHA have not classified this product as a carcinogen. Crystalline silica is present in quantities of less than 0.01%.

Medical conditions that may be aggravated	Pre-existing upper respiratory irritation and lung disease
Target organs	Lungs
Primary entry route	Inhalation
Acute health effects	Transitory upper respiratory irritant.
Chronic health Effects	Long-term inhalation of dust levels in excess of the PEL may cause lung disease (silicosis).
Eye Contact	Temporary irritation and/or inflammation
Skin contact/absorption	Not applicable
Inhalation	Coughing and/or irritation of nose and throat.
Ingestion	Not hazardous

Section VI. Reactivity Data

Stability	Stable
Incompatibility	None known
Hazardous Decomposition or By-products	None known
Conditions to Avoid	None known

Section VII. Spill or Leak Procedures

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED	Sweep up; avoid making dust, place in suitable waste container.
Waste Disposal	Disposal of material in accordance with local, state and federal regulations
Environmental Hazards	None known
Handling/Storage	Store in a dry place, maintain good housekeeping practices.

Section VIII. Safe Handling and Use Information

RESPIRATORY PROTECTION	Use NIOSH approved respirators for protection from silicosis producing dusts.
PROTECTIVE GLOVES	Not required
EYE PROTECTION	Avoid eye contact, safety glasses may be necessary.
VENTILATION	Use adequate ventilation and/or dust collection to keep dust levels below PEL.
OTHER PROTECTIVE CLOTHING AND EQUIPMENT	Not required.

Section IX. Emergency First Aid Procedures

INHALATION	Remove from dusty area, drink water to clear
INGESTION	Not applicable
SKIN CONTACT/ABSORPTION	Not applicable
EYES	Flush with water.

"When you need Excellent Water"

www.turbidex.com

956.425.1110

Turbidex™

Marketed Exclusively by

HYDRO SOURCE, LLC.

1501 N 28th St. Harlingen, Tx 78550