BIOSAFE™ solutions

HYDROBREAK

HYDROBREAK is manufactured to ISO9000 quality standards. It is completely safe and environmentally acceptable, both in use and disposal. Classified as non-hazardous, HYDROBREAK is classified totally safe under the CHIP regulations. It is non-toxic, non-corrosive, and has no toxic by-products – **If it's safe to use water, it's safe to use HYDROBREAK.**

It's also non-volatile and non-flammable, which can bring massive savings on ventilation equipment, fire precautions and insurance premiums, and, when used in effluent treatment plant, can reduce power consumption by up to 50% and greatly reduce oxygen demands.

HOW IT WORKS

As well as releasing contaminants from polluted surfaces, HYDROBREAK breaks down their long hydrocarbon molecules into shorter and more accessible chains. Its unique formulation then stimulates an 'explosion' of naturally occurring bacteria which feed off the residue and convert it into water and carbon dioxide. Then, with their food source gone, the bacteria simply die off. Unlike conventional detergents, solvents, oil dispersants or hydrocarbon-based degreasers, HYDROBREAK doesn't merely move the pollutants elsewhere, it destroys them. And since it is itself non-tainting and completely biodegradable, even when mixed with contaminants, there are no residual traces left after rinsing.

VERSATILITY

Because it can be applied safely in many ways – by hand or in floor scrubbers, steam cleaners, aqueous spray washing systems and ultrasonic units – and on a wide range of substrates, HYDROBREAK can reduce the number of cleaning products required on site, simplifying ordering, storage and stock control.

HYDROBREAK does not affect paints, rubbers or plastics and is compatible with most metals, including aluminium, brass, bronze, copper, iron, lead, steel and zinc. Correctly used, it can replace solvent degreasers and has none of the hazards of solvent or alkaline detergents.

Applied to oils, greases and fats, it prevents their re-forming to block drains or make floors unsafe. It can also be used in conjunction with selected bacteria strains to treat specific effluents, or on hydrocarbon spills on land or road surfaces. It won't damage the asphalt and it renders hydrocarbons non-flammable on application. For finely tuned applications in effluent digestion of fats, certain hydrocarbons and free oils and greases or the bioremediation of contaminated land, HYDROBREAK can be combined with specific bacterial cultures for maximum targeted effectiveness.

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MARKET PLACE: For use anywhere that storage is at a premium or the use of a concentrate is acceptable for dealing with hydrocarbon or aromatic pollution. Industry effluent, treatment systems, spillage control kits, marine applications, export markets.

PRODUCT DESCRIPTION: An ultra concentrated non-toxic product capable of dealing with the cleaning of any oil, grease, fat or hydrocarbon problem. HYDROBREAK also has the ability to stimulate bacterial activity to breakdown the resultant effluent into harmless by-products, ie water and carbon dioxide.

TYPICAL USES: HYDROBREAK is an excellent product for use through dosing units in effluent treatment plants for the breakdown of hydrocarbons. Anywhere that the storage of, or transportation of, bulk chemicals can present a problem. With HYDROBREAK being an ultra concentrate, it allows users to store or transport smaller quantities of product that can subsequently be diluted to the desired strength using either fresh or sea water.

BENEFITS: Totally safe in use. Renders hydrocarbons non-flammable on application. Prevents grease and oil build-up. Aids biodegradation. Excellent cleaning and degreasing properties. Ultra concentrate allows for effective economical treatment of hydrocarbon and aromatic waste.

DILUTION RATES: Effective use up to 500:1 General minimum use 25:1

HYDROBREAK

FEATURES

- NON TOXIC AND NO TOXIC BY-PRODUCTS
- NON CORROSIVE
- NON FLAMMABLE AND NON VOLATILE
- NON TAINTING
- COMPLETELY BIODEGRADABLE
- COMPLETE AEROBIC BREAKDOWN OF ALL KINDS OF MINERAL, ANIMAL, VEGETABLE AND SYNTHETIC OILS AND FATS
- DOES NOT AFFECT RUBBER, PLASTICS, PAINTS, RESINS OR METALS
- LEAVES NO RESIDUE AFTER RINSING
- NO SPECIAL STORAGE REQUIREMENTS

BENEFITS

- NO SPECIAL SAFETY REQUIREMENTS THUS NO NEED FOR AIR EXTRACTION SYSTEMS, SPECIAL PROTECTIVE CLOTHING OR BREATHING APPARATUS
- SUITABLE FOR MANY APPLICATIONS WHERE SOLVENT CLEANING WAS PREVIOUSLY THE ONLY OPTION
- CAN REPLACE SOLVENTS IN CERTAIN INDUSTRIAL APPLICATIONS
- REDUCED NEED FOR GREASE TRAPS OR INTERCEPTOR TANKS
- REDUCES GREATLY ANY POSSIBILITY OF BLOCKED DRAINS DUE TO OIL OR FAT BUILD UP
- REDUCES NEED FOR ENZYME ADDITION TO WASTE WATER SYSTEMS AND EFFLUENT TREATMENT PLANTS
- COMPLETELY SAFE TO USE IN AREAS WHERE FOOD IS PREPARED OR PROCESSED
- USED FOR THE REMOVAL OF ANIMAL FATS
- CAN BE USED ANYWHERE THE USE OF WATER IS ACCEPTABLE
- DOES NOT ALLOW BUILD UP OF GREASE AND OIL NORMALLY FOUND IN CLEANING BAYS
- EXTREMELY EFFECTIVE AT REMOVING OIL, GREASE, FAT ETC FROM FLOORS AND WALK-WAYS THUS MAKING SURE OF A SAFER WORKING ENVIRONMENT
- RENDERS HYDROCARBONS INERT UPON APPLICATION WHEN APPLIED BY PRESSURE SPRAYING EQUIPMENT THUS REDUCING FIRE RISK
- ENHANCES THE PERFORMANCE OF BIOLOGICAL EFFLUENT PLANTS, BY REDUCING FREE OILS AND GREASES, HYDROCARBONS AND SUSPENDED SOLIDS

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YOUR QUESTIONS ABOUT HYDROBREAK ANSWERED

- Can I clean anything using Hydrobreak?
  - ✓ Hydrobreak has been designed to clean most materials without causing any damage.

- What will Hydrobreak clean?
  - ✓ Hydrobreak is primarily a degreaser and as such will give the best results when dealing with oils, greases and hydrocarbons.

- How do I know that Hydrobreak won't cause any damage to the surface I wish to clean?
  - ✓ If you are concerned that Hydrobreak might have an effect on what you wish to clean, try cleaning a small section first of all.

- Does that mean that all the other dirt will be left behind?
  - ✓ No, most other dirt will have been held in place by the oil and grease and when Hydrobreak is applied then the dirt will be washed away.

- Will baked or burnt on carbon be removed by Hydrobreak?
  - ✓ Hydrobreak has been designed to be safe to use and there are limitations as to what the product can actually clean. In the case of burnt on carbon it is recommended to use a more aggressive product.

- Does that mean that Hydrobreak is not powerful?
  - ✓ Hydrobreak is actually a very powerful and effective degreaser, giving outstanding cleaning results.

- Is one application enough?
  - ✓ Normally one application is sufficient to remove all contamination, in the case of heavy or aged contamination it may be better to allow the Hydrobreak to soak for a period before washing away.

- What's the best way to apply it?
  - ✓ Hydrobreak can be applied in many ways using different equipment, it is always best to use the most powerful means of application in order to achieve maximum effectiveness and efficiency.

- What do you mean by that?
  - ✓ To achieve the best results, the use of heat, agitation and pressure is recommended.

- How do I get all of those?
  - ✓ The simplest way is to use a steam cleaning machine, floor scrubbing machine, ultrasonic bath, aqueous spray washing machine or a spray washing system, using whichever apparatus that is best suited to your specific application.

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- I haven't got any of those what should I use?
  - ✓ Don't worry Hydrobreak will give impressive results by hand application.

- What do you mean by hand applications?
  - ✓ Hand applications are when you use Hydrobreak without a machine ie with a brush or mop and bucket, rag or cloth or perhaps by a hand or back-pack sprayer.

- How do I mix the Hydrobreak?
  - ✓ Always add the water to the Hydrobreak in order to achieve a good mix.

- Do I just use fresh water?
  - ✓ Where possible use hot water, this can be fresh or seawater.

- When I'm cleaning using Hydrobreak where do I start?
  - ✓ It is always best to start cleaning at the furthest point from the drain, or if it is a vertical surface to be cleaning always start at the top and work your way down.

- When I'm finished what do I do?
  - ✓ The first thing to do is rinse away all waste waters to a suitable foul drain, interceptor, effluent treatment plant or holding tank.

    All waste waters must be disposed of in accordance with local regulations

- You state that Hydrobreak is environmentally friendly and that it will not cause any damage to the environment?
  - ✓ That is true, but like any product it must not be allowed directly into surface water.

- What do you mean by that?
  - ✓ This simply means that any product entering surface water will have an impact, with Hydrobreak however it is possible to reduce this impact by passing the Hydrobreak and contaminants through a system allowing time for breakdown.

- What do you mean by breakdown?
  - ✓ By breakdown we mean the breakdown of the resultant waste into acceptable components.

- How can I achieve this?
  - ✓ To achieve breakdown of the contamination, Hydrobreak requires the presence of oxygen and bacteria.

- Where do I get these from?

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- ✓ Firstly the bacteria required are found everywhere in the environment so they are already present, and secondly oxygen is also present in the environment so it is also available.

- What if there are not enough bacteria?
  - ✓ This is a good point and one which is very important. One of the main properties of Hydrobreak is its ability to stimulate the rapid growth of available bacteria in order for the bacteria to degrade the contaminants. Hydrobreak provides an initial food source for the bacteria, and in doing so the bacteria will consume the Hydrobreak before turning their attention to the contamination.

- OK you also said that oxygen is required, what if there is not enough?
  - ✓ Again this is an important point, as without oxygen we will get very little if any, breakdown. Oxygen is available in the air and also in water, but what we need is a constant supply in order for the bacteria to perform.

- How can I ensure a constant supply?
  - ✓ The easiest way is to aerate the water into which the contamination passes.

- How do I do this?
  - ✓ A very simple way is to feed a compressed airline into any holding tanks or interceptors, this will provide enough aeration for breakdown to occur.

- How long does it take for breakdown to take place?
  - ✓ This is a very difficult question to answer as it is dependent on several factors ie ambient temperature, available oxygen, available bacteria, quantity of contamination and time. We suggest that once all the wastewaters reach a suitable holding tank, give as much time as possible prior to discharge.

- You have only dealt with cleaning and degreasing applications, I want to use Hydrobreak in my effluent treatment plant to help reduce my free oil and grease levels. How do I do this?
  - ✓ You are right, we now need to focus on some specific applications such as effluent treatment plants. The first thing to note is that the use of Hydrobreak at the source of contamination will have a positive effect on reducing the free oils and greases passing through the system **especially in effluent traps and interceptors.**

- What does this mean?
  - ✓ Well if we use Hydrobreak as the cleaner/degreaser in the factory the waste waters arriving at the effluent plant will have already been pre-treated, with the hydrocarbons in a much better state for degradation as they pass through the effluent plant.

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- So all I have to do is change my degreasing products in the plant?
  - ✓ To gain the best results we would also recommend the addition of Hydrobreak into the effluent plant.

- How would I do this?
  - ✓ The best way to do this is by using a dosing pump at the inlet point to the effluent plant.

- Will this lead to an immediate reduction on my free oil and greases discharges?
  - ✓ Initially it should be expected to see a rise in these levels, this is quite normal as the introduction of Hydrobreak will clean out the system.

- How long will this rise continue?
  - ✓ The rise should only occur for a short period of time as the system is cleaned.

- What sort of reduction should I look for?
  - ✓ A free oil and grease reduction of 50% is possible, this is providing everything else in the system is functioning efficiently.

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HYDROBREAK IS MANUFACTURED FROM SAFE NON-SOLVENT BASED PRODUCTS, REFLECTING THE DRIVE TO REPLACE HAZARDOUS LIQUIDS IN THE WORKPLACE

WHAT MAKES HYDROBREAK UNIQUE?

1) HYDROBREAK has the ability to break down animal, mineral and synthetic oils, greases, fats and many aromatic substances into smaller environmentally acceptable components.

2) HYDROBREAK then has the ability to stimulate naturally occurring parasitic bacterium to further break down these components into harmless waste material (eg water and carbon dioxide), thus reducing the environmental impact normally associated with cleaning/degreasing in industry.

3) HYDROBREAK therefore, has the ability to solve the problems associated with cleaning/degreasing as opposed to simply moving the problem from one location to another.

4) HYDROBREAK is totally safe to use in any situation where the use of water is acceptable.

5) HYDROBREAK has no health hazards associated with use of the product.

6) Unlike most conventional cleaners/degreasers, HYDROBREAK is classified as non-hazardous.

7) HYDROBREAK can be used in conjunction with particular bacterial strains for the treatment of specific effluent problems or with spill kits for the treatment of hydrocarbon spills or contamination on land or road surfaces.

8) HYDROBREAK has the ability to render hydrocarbons non-flammable on application.

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COMPARISONS WITH OTHER PRODUCTS IN THE MARKET

PRODUCT PROFILE	HYDROBREAK	OIL DISPERSANTS	CAUSTIC ALKALINE DETERGENTS	CHLORINATED SOLVENTS	PARAFFIN HYDRO-CARBON DEGREASERS
NON-FLAMMABLE	YES	YES	YES	NO	NO
NON-TOXIC	YES	YES	YES	NO	NO
COMPLETELY BIODEGRADABLE	YES	YES	NO	NO	NO
CLASSIFIED NON HAZARDOUS	YES	NO	NO	NO	NO
NO TOXIC BY-PRODUCT	YES	YES	NO	NO	NO
CONCENTRATED	YES	NO	YES	NO	NO
WATER SOLUBLE	YES	YES	YES	NO	NO
WILL NOT AFFECT SUBSTRATES (PAINTS, RUBBERS, PLASTICS, METALS)	YES	YES	NO	NO	NO
AID DEGRADATION OF VARIOUS CONTAMINATION	YES	NO	NO	NO	NO
PREVENT GREASE, OIL AND FAT BUILD UP	YES	NO	NO	YES	NO
NO VENTILATION REQUIRED	YES	NO	NO	NO	NO
SEWAGE OR EFFUENT SYSTEM ENHANCER	YES	NO	NO	NO	NO
POSITIVE EFFECT ON ANY EXISTING EFFLUENT/SEWAGE TREATMENT SYSTEM	YES	NO	NO	NO	NO
SAFE ON TARMAC AND ASPHALT	YES	NO	NO	NO	NO
TOTALLY SAFE FOR USE	YES	NO	NO	NO	NO

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TECHNICAL INFORMATION DATA – HYDROBREAK

PHYSICAL FORM:	LIQUID
COMPOSITION OF PRODUCT:	AN AQUEOUS BLEND OF FULLY BIODEGRADABLE SURFACTANTS, ORGANIC ACIDS AND PLANT EXTRACTS
APPEARANCE:	COLOURLESS WITH A PALE YELLOW TINGE
ODOUR:	SLIGHT
MISCIBILITY WITH WATER:	COMPLETE
SPECIFIC GRAVITY @ 20 DEG C:	1.042 – 1.046
PH:	5.5+/-0.5
BOILING POINT:	100 DEG C
FREEZING POINT:	0 DEG C
FLASH POINT:	>65 DEG C NON-FLAMMABLE
FLASH POINT METHOD:	TCC (TAG CLOSED CUP)
DEGRADABILITY:	>97% GERMAN LAW
TRANSPORT INFORMATION:	THIS PRODUCT IS NOT CONSIDERED HAZARDOUS FOR TRANSPORT
STORAGE REQUIREMENTS:	STORE IN PLASTIC CONTAINERS ABOVE 0 DEG C
SAFETY REQUIREMENTS:	THIS PRODUCT IS CLASSIFIED AS NON-HARMFUL

PROTECTIVE GOGGLES AND GLOVES SHOULD BE WORN WHEN HANDLING HYDROBREAK