

BLACK-IT!

Instructions (Iron & Steel)

IMPORTANT !! Before using this kit please read all of the instructions and the Health and Safety sheets carefully.

The **BLACK-IT** process for Iron and Steel is very easy to carry out. The following describes the simple sequence of operations. To guarantee success it is necessary to follow the instructions in the order given.

All of the solutions in the kit are supplied at the correct strength and no further dilution is necessary. Do not mix any of the solutions together and always return them to their original bottles. Ideally, the solutions should be at room temperature (about 20 degrees Celsius). You can treat many items at the same time providing they are all covered by the solutions.

SAFETY PRECAUTIONS

1. Read the Safety Data section.
2. Full H&S data sheets can be downloaded from the www.Black-it.co.uk website.
3. Always use rubber gloves and avoid contact with skin, eyes and clothing.
4. Eye protection is recommended.
5. Always carry out the process in a well ventilated area.
6. Do not smoke, eat or drink whilst processing.
7. Store in frost free area.
8. **KEEP AWAY FROM CHILDREN**

THE PROCESS

1. You will need five plastic containers which will hold the solutions. Ice cream containers are a good choice. The important thing about the container is that the treated item must be completely immersed in the solution. For very small items you can suspend them directly in the bottles.
2. Fill one of the containers with tap water. This is the wash bath. **NOTE!** If the wash bath water gets cloudy then change it.
3. Empty each of the other **BLACK-IT** solutions into separate plastic containers. It is a good idea to place the bottle behind the container to reduce the chance of getting the solutions mixed up. Ideally the solutions should be lined up in the order of use which is Degreaser, Conditioner, Blacking Solution and Dewatering Oil.
4. The item to be treated should be as bright and rust-free as possible.
5. Place the item in the Alkaline Degreaser for at least 5 minutes. Very clean items will need less time and vice-versa.
6. Remove the item and rinse in the wash bath. A little agitation will ensure that all of the Degreaser has been removed.

7. Place the item in the Conditioner for about 1 minute. This process ensures an even blacking.
NOTE! Do not leave for more than 2 minutes or uneven blacking may result.
8. Remove the item and wash. A little agitation will ensure that all of the Conditioner has been removed.
9. Place the item in the Blacking Solution for 2 to 4 minutes. Gently agitate to make sure that all surfaces of the metal are in contact with the solution. Even better, use a small plastic basket or hang on a tree with other parts.
10. Remove the item and wash. A little agitation will ensure that all of the Blacking Solution has been removed.
11. Place the item in the Dewatering Oil. The longer you leave the item in this oil the longer the corrosion protection. Typically 10 minutes should give 6 months protection. Components with blind holes should be agitated to ensure that all the surfaces are treated.
12. Remove the item and drain and dry. Leave the item to dry naturally and, if possible, do not touch for 45 minutes. The item is now coated and ready for use. If you are in a hurry and do not need high rust resistance, wait a couple of minutes then wipe with a clean rag.

Repeat the process for more items as required. When finished return all solutions to their original containers and store in a safe, frost-free place

Maintaining your **BLACK-IT** kit

The factor which governs the rate at which the solutions are consumed is the surface area treated. The following comments will help you maintain the kit to full effectiveness. All of the solutions are available separately so you need only buy what you need.

1. Degreasing Solution.

This is a mild alkaline solution. Examine the parts as you remove them from this solution. The parts should be wet all over. If there are any dry patches then place in the solution for another 5 minutes. If parts are taking a long time to clean then the solution probably needs replacing.

2. Conditioner.

This is a solution of Phosphates. Providing there has been no contamination from other solutions or debris then the solution will not need replacing until only 50% of the original quantity remains.

3. Blacking Solution.

The Blacking Solution contains Selenium compounds. As it is used up the process time will get longer and the blacking effect will become inconsistent and patchy. When this happens order a replacement.

4. Dewatering Oil.

This solution is designed to replace water with oil on the surface of the metal. The water removed will collect at the bottom of the bottle. **CAREFULLY** decant off the Dewatering Oil from the water and dispose of the water. The solution also has volatile components so return to the bottle and cap as soon as you are finished with it. As this solution degrades you will see streaks on the surface and a discolouring rust film will form quite quickly. Again, replace the solution when it's effectiveness is in question.

BRIEF PRODUCT SAFETY GUIDE

NOTE: These are brief extracts of the major points from the full H&S data sheets which are always available on our website: www.black-it.co.uk We recommend that you download and read the full H&S sheets.

ALKALINE DEGREASER

IRRITANT - AVOID CONTACT WITH SKIN AND EYES. WEAR PVC GLOVES AND EYE PROTECTION

FIRST AID MEASURES:

Skin:	Remove all contaminated clothes and footwear immediately unless stuck to skin. Drench the affected skin with running water for 10 minutes or longer if substance is still on skin.
Eyes:	Bathe the eye with running water for 15 minutes. Transfer to hospital for specialist examination.
Ingestion:	Wash out mouth with water. If conscious, give half a litre of water to drink immediately. Consult a doctor.
Inhalation:	Remove casualty from exposure ensuring one's own safety whilst doing so. Consult a doctor.

SPILLAGE : If small, wash down with large amounts of water. For larger spillages, absorb in dry earth or sand. Transfer to labelled salvage container for disposal.

WASTE DISPOSAL: Transfer to a suitable container and arrange for collection by specialised disposal company.

WASTE CODE NUMBER: 12 03 01

CONDITIONER

IRRITANT - AVOID CONTACT WITH SKIN AND EYES. WEAR PVC GLOVES AND EYE PROTECTION

FIRST AID MEASURES:

Skin:	Rinse skin with water.
Eyes:	May cause irritation to eyes. Rinse eyes with water.
Ingestion:	Wash out mouth with water. If conscious, give half a litre of water to drink immediately. Consult a doctor.
Inhalation:	Remove casualty from exposure ensuring one's own safety whilst doing so. Consult a doctor.

SPILLAGE : If small, wash down with large amounts of water. For larger spillages, absorb in dry earth or sand. Transfer to labelled salvage container for disposal.

WASTE DISPOSAL: Transfer to a suitable container and arrange for collection by specialised disposal company.

WASTE CODE NUMBER: 11 01 08

BLACKING SOLUTION

HARMFUL BY INHALATION AND IF SWALLOWED. WEAR PVC GLOVES

FIRST AID PROCEDURES: Skin: Remove all contaminated clothes and footwear immediately unless stuck to skin. Drench the affected skin with running water for 10 minutes or longer if substance is still on skin.
 Eyes: Bathe the eye with running water for 15 minutes. Transfer to hospital for specialist examination.
 Ingestion: Wash out mouth with water. If conscious, give half a litre of water to drink immediately.
 Inhalation: Remove casualty from exposure ensuring one's own safety whilst doing so.

SPILLAGE: Absorb into dry earth or sand. Transfer to a closable, labelled salvage container for disposal by an appropriate method. Wash the spillage site with large amounts of water.

WASTE DISPOSAL: Transfer to a suitable container and arrange for collection by specialised disposal company.

WASTE CODE NUMBER: 11 01 98

ENVIRONMENTAL PRECAUTIONS: Do not discharge into drains or rivers.

DEWATERING OIL

FLAMMABLE - DO NOT SMOKE. DO NOT USE NEAR SOURCES OF IGNITION.
AVOID CONTACT WITH SKIN. AVOID BREATHING VAPOUR.

FIRST AID PROCEDURES: Skin: Remove all contaminated clothes and footwear immediately unless stuck to skin. Drench the affected skin with running water for 10 minutes or longer if substance is still on skin. Consult a doctor.
 Eyes: Bathe the eye with running water for 15 minutes. Consult a doctor.
 Ingestion: Wash out mouth with water. If conscious, give half a litre of water to drink immediately. Transfer to hospital as soon as possible.
 Inhalation: Remove casualty from exposure ensuring one's own safety whilst doing so.

SPILLAGE: Do not smoke. Absorb into dry earth or sand. Transfer to a closable, labelled salvage container for disposal by an appropriate method.

WASTE DISPOSAL: Transfer to a suitable container and arrange for collection by specialised disposal company.

WASTE CODE NUMBER: 13 08 99

ENVIRONMENTAL PRECAUTIONS: Do not discharge into drains or rivers.

EXTINGUISHING MEDIA: Water. Dry chemical powder. Alcohol resistant foam.

Further information: **Pixel-Plus, Ty Mawr, Bryncroes, Pwllheli, Gwynedd. LL53 8EH.**
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