

Don't forget the law

Be aware that there are specific legal requirements covering the acquiring, keeping and transport of explosives. These requirements will need to be complied with if explosives come into your possession; further guidance should be sought from your local HSE office (find details in your local phone book or call the HSE InfoLine).

For more information

Disposal of explosives waste Guidance Note CS23
HSE Books 1999 ISBN 0 7176 1624 X

A guide to handling and storage of airbags and seatbelt pretensioners at garages and motor vehicle repair shops Leaflet INDG280 HSE Books 1998 (single copy free or priced packs of 10 ISBN 0 7176 1614 2)

Guidance on the handling, storage and transport of airbags and seatbelt pretensioners HSG184 HSE Books 1998
ISBN 0 7176 1598 7

Carriage of dangerous goods explained: Part 4 Guidance for operators, drivers and others involved in the carriage of explosives by road HSG162 (Second edition) HSE Books 1999 ISBN 0 7176 1675 4

A guide to the Control of Explosives Regulations 1991.
Guidance on Regulations L10 HSE Books 1991
ISBN 0 11 885670 7

COSHH a brief guide to the regulations: What you need to know about the Control of Substances Hazardous to Health Regulations 1999 (COSHH) Leaflet INDG136(rev1) HSE Books 1999 (single copy free or priced packs of 10 ISBN 0 7176 2444 7)

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For information about health and safety ring HSE's InfoLine
Tel: 08701 545500 Fax: 02920 859260
E-mail: hseinformationservices@natbrit.com or write to
HSE Information Services, Caerphilly Business Park,
Caerphilly CF83 3GG. You can also visit HSE's website:
www.hse.gov.uk

This leaflet contains notes on good practice which are not compulsory but which you may find helpful in considering what you need to do.

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Is it EXPLOSIVE?



Dangers of explosives in metal recycling



Who should read this?

This leaflet is for people who handle or process metals intended for recycling and which may contain explosive products. It provides information to help you identify if explosives are still present and how to keep the risks of an explosion and injuries to a minimum.

Where do explosives come from?

It is now common for metals and metal components recovered from explosive products or plant used for the manufacture of explosives to enter the metal recycling chain.

Examples of military explosive products are artillery, mortar and small arms ammunition, pyrotechnics, hand grenades and cartridges. Explosive products such as car airbags and distress flares are also used in the commercial sector.

The recovered metals may come from normal manufacturing and testing activities or from more specialist explosives disposal work. Explosives factories, firing ranges and some Ministry of Defence establishments are frequent sources of these metals. Shipments of recovered metals from overseas may also be processed in this country.

What do explosives look like?

Explosive materials can take many forms, but are normally powders, granules or solid lumps. They can also be liquids or look like plastic. Items of plant which have been used for explosives manufacture can contain explosives which are not easily seen because they may have seeped into small cracks or joints.

What's the danger?

Explosives can be set off by heat, friction (rubbing), shock (for example due to an item containing explosives being dropped) or static electricity. Explosives can become easier to set off accidentally as they get older and deteriorate or if they are contaminated with rust, grit or other materials. Some explosives become more dangerous if they are wet - do not apply water to suspect items.

Although this leaflet is primarily aimed at dealing with explosive hazards, you should also be aware that unusual alloys, possibly containing metals such as beryllium or manganese, are often used in explosive products. When these are melted they can produce toxic fumes and special precautions may need to be taken.

How does the metal reach you?

Only after all of the explosive has been removed should the metals that remain be sent for disposal or recycling.

These removal processes can only be carried out safely by people having specialised knowledge, training and experience in the areas of explosives destruction and decontamination. Under no circumstances should you attempt to carry them out.

The explosive parts are often removed from products by:

- ✱ using chemicals or solvents to dissolve the explosive out;
- ✱ breaking the product down and pouring the explosive out or removing the explosive components;
- ✱ heating the product in a specially designed oven or furnace to destroy (burn off) the explosive (sometimes called 'proving' and often used to confirm that all explosive has been removed by one of the methods described above); or
- ✱ firing the explosive product in the normal way.

Check before delivery

You should ask the supplier of the recovered metals for a clear, reliable, written statement or certificate that confirms there are no explosives present. This is sometimes referred to as a free from explosives (FFE) certificate.

Make the supply of such a statement or FFE certificate part of your standard conditions of purchase. You can also ask your supplier which of the above methods were used to remove the explosives and what additional checks, for example chemical analysis and visual examination, if any, have been carried out before the issue of the FFE certificate.

This is an example of a typical *free from explosives* certificate:

THIS ITEM IS CERTIFIED FREE FROM EXPLOSIVES	
DESCRIPTION OF ITEM	Steel mixing vessel and lid
IDENTIFICATION NUMBER	RVI/950
CERTIFICATE SERIAL NUMBER	DC00538
AUTHORISED SIGNATURE	S Smith
NAME	S. Smith
POSITION/ COMPANY	Burning Ground Manager Explosives Factory Ltd
DATE	2 February 2002

Proceed with care

Even a few grammes of explosive can cause serious injury. A very small quantity of explosives trapped within a metal item can, if it is accidentally set off, cause it to disintegrate causing serious injury due to flying fragments of metal.

The breaking down of explosive products should only be carried out at a licensed explosives factory. If components of explosives are received from a place other than a licensed factory, this may be a reason for taking extra care. If any items appear to be unexpectedly clean, undamaged and look to be fully or partly assembled it may be more likely that explosives are present. Items that have been used for demonstration purposes should be clearly identified with the word 'inert' indelibly marked on the outside. Even so the article should also be accompanied by a FFE certificate or similar. Be wary of any metal ammunition boxes which still have explosives warning labels - they may not have been properly checked for freedom from explosives.

Be suspicious be safe

If you cannot get a satisfactory written statement or certificate or are otherwise suspicious that there may be explosives present:

- ✱ Leave the consignment where it is.
- ✱ Do not handle, sort or disturb it in any way.
- ✱ Keep people well away from it.
- ✱ Close your premises to the public.
- ✱ Stop all other metal handling.
- ✱ Evacuate your employees to a safe place.
- ✱ Contact the police (don't dial 999 use the local number).

Write your local police contact number here:

What happens next?

The police may decide to involve the local fire and rescue service or Explosive Ordnance Disposal (EOD) personnel. If they are called, the EOD personnel may deal with some items themselves before they leave. In other cases they will give advice on what action you can safely take. Always follow the advice given by the EOD personnel, and do not hesitate to stop and refer back to them for further advice if you are in any doubt.