

Safety Data Sheet

DATE : 01 : 10 : 2002

REVISION (see box 16)


ISSUE NO : 07

NOTE: Access to a copy of this Safety Data Sheet (SDS) via our Website does not constitute the issue of a Controlled Copy under EU legislation. To be issued with such a Copy please contact Rentokil Initial at the address below by telephone, fax or in writing. In order to confirm the latest version of the SDS for this product see web: www.ri-research.com and click on Technical Information / Product Safety.

1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND COMPANY

PRODUCT NAME	: BT 110
DESCRIPTION	: An opaque, dark-brown liquid with a woody odour. For use in boilers as a corrosion inhibitor.
COMPANY	: Rentokil Initial UK Ltd, Hygiene Division, Felcourt, East Grinstead, West Sussex. RH19 2JY. England. Telephone: +44 (0)1342 833022 Facsimile: +44 (0)1342 326229.

2. HAZARDS IDENTIFICATION

CLASSIFICATION OF PRODUCT (SUPPLY - Use)	UK CHIP 3 (The Chemicals (Hazard Information and Packaging for Supply) Regulations, 2002) / EC Directive 1999/45.	DANGER SYMBOL (UK CHIP 3) : (Black on orange background)
X_i - IRRITANT	: R36/38 : Irritating to eyes and skin.	 IRRITANT
ADVERSE PHYSICOCHEMICAL, HUMAN HEALTH AND ENVIRONMENTAL EFFECTS (see also box 11) : In the event of a fire, sulphur dioxide may be liberated. Explosive reactions are possible with many organic chemicals particularly chlorinated hydrocarbons. Hydrogen gas may be evolved on reaction with aluminium, brass, tin and zinc. Irritating to eyes and skin. Prolonged contact may cause burns. Ingestion may cause irritation of the digestive system, nausea and vomiting. Excessive inhalation of the vapours may cause irritation of the respiratory system. Adverse effects on the environment are unlikely, provided that the product is used as intended.		

3. COMPOSITION / INFORMATION ON INGREDIENT(S)

% w/w	COMMON*/CHEMICAL NAME, ELINCS / EINECS AND CAS No OF INGREDIENT(S)	UK CHIP 3 / EC 1999/45 CLASSIFICATION OF INGREDIENT(S)
≤2.5	Sodium hydroxide EINECS: 215-185-5 CAS: 1310-73-2	C - CORROSIVE : R35 : Causes severe burns.

4. FIRST-AID MEASURES (see also "adverse effects" in box 2)

INHALATION (Breathing)	: Remove patient to fresh air, keep warm and at rest. Apply supportive measures if necessary and seek medical attention.
EYE CONTACT	: Rinse affected eye with clean running water, or eyewash solution, for at least 15 minutes holding eyelids well apart. Rinse entire surface and do not allow run-off to contaminate unaffected eye. Seek medical attention.
SKIN CONTACT	: Remove and wash contaminated clothing immediately. Wash affected area thoroughly with soap and water. If the patient feels unwell seek medical advice.
INGESTION (Swallowing)	: Do NOT induce vomiting. If unconscious place in the recovery position and apply supportive measures if necessary. If conscious give patient up to 1 pint of water to drink. Seek medical attention.
EMERGENCY EQUIPMENT SUGGESTED	: Appropriate first-aid equipment should be provided. For the UK this should be in accordance with the Health & Safety (First-Aid) Regulations 1981. See also the Approved Code of Practice "First-aid at Work".
NOTE TO DOCTOR	: For further information contact the National Poisons Information Service in the UK.

5. FIRE-FIGHTING MEASURES

FIRE EXTINGUISHER - TYPES	: Use carbon dioxide, foam, powder or water-spray.
SPECIAL FIRE-FIGHTING PROCEDURES	: Wear self-contained breathing apparatus and full body protective clothing to protect against any toxic fumes.
SPECIAL EXPOSURE HAZARDS	: In the event of a fire, sulphur dioxide may be liberated. Explosive reactions are possible with many organic chemicals particularly chlorinated hydrocarbons. Hydrogen gas may be evolved on reaction with aluminium, brass, tin and zinc.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS (see also box 8)	: Wear suitable personal protective equipment.
PROCEDURE (see also box 13)	: Absorb spill with an inert material such as sand, earth or sawdust. Transfer to a suitable container for subsequent disposal. DO NOT contaminate watercourses or ground with large quantities of undiluted product.

7. HANDLING AND STORAGE (see also box 8)

HANDLING	: Avoid contact with skin. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. After contact with skin, wash immediately with plenty of water. Wear suitable protective clothing, gloves and eye face protection. If swallowed seek medical advice immediately and show this container or label.
STORAGE	: Store in original container in a cool, dry, ventilated place out of reach of children and away from food, drink and animal feeding stuffs. Protect from frost. Store away from acids, many organic chemicals, brass, zinc, aluminium, ammonium salts, phosphorus and sugars.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION (see also box 7)

OCCUPATIONAL EXPOSURE LIMITS	: OES for sodium hydroxide is 2 mg/m ³ short-term exposure (15 minutes Time Weighted Average).
ENGINEERING CONTROLS	: Where prevention of exposure is not reasonably practicable, adequate control of exposure should be achieved by engineering controls rather than the provision of personal protective equipment and clothing. More specific details cannot be given without carrying out a full risk assessment for each and every use scenario. Suitable and approved personal protective equipment and clothing may include the following item(s):
EYE PROTECTION	: Wear suitable eye protection such as goggles or a face shield.
HAND PROTECTION	: Wear suitable hand protection such as chemical-resistant gloves.
SKIN PROTECTION	: Wear suitable skin protection such as coveralls.
BREATHING PROTECTION	: Not required unless natural ventilation is inadequate, then wear suitable respiratory equipment.
ENVIRONMENTAL EXPOSURE CONTROLS	: Product should be used in accordance with instructions given in Hygiene Technical Manual and any spillage should be dealt with as a priority in order that contamination of watercourses or ground is avoided.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOUR	: An opaque, dark-brown liquid with woody odour.		
FLASH POINT	: Not applicable.	SOLUBILITY IN WATER	: Miscible.
FLAMMABILITY	: Non-flammable.	SOLUBILITY IN FAT	: Not determined.
AUTOFLAMMABILITY	: Not determined.	PARTITION COEFFICIENT	: Not applicable.
VAPOUR PRESSURE	: Not determined.	BOILING POINT/RANGE	: Starts at ca. 101.5°C
SPECIFIC GRAVITY	: 1.07 - 1.08	MELTING POINT/RANGE	: Starts at ca. -2°C
OXIDISING PROPERTIES	: None known.	pH	: 9.5 – 10.0
EXPLOSIVE PROPERTIES	: None known.	VAPOUR DENSITY	: Not known.
VISCOSITY	: Not known.	EVAPORATION RATE	: Not known.
OTHER DATA	: None known.		

10. STABILITY AND REACTIVITY

CONDITIONS TO AVOID	: Avoid extremes of temperature, e.g. below 0°C and above 40°C.
MATERIALS TO AVOID	: Avoid contact with acids, ammonium salts, phosphorus, sugars, many organic chemicals, aluminium, brass, tin, zinc and alloys of these metals.
HAZARDOUS BREAKDOWN PRODUCTS	: In the event of a fire, sulphur dioxide may be liberated. Hydrogen gas may be evolved on reaction with aluminium, brass, tin and zinc. Reaction with red/white phosphorus may generate toxic fumes. Contact with ammonium salts liberates irritant fumes of ammonia. Certain sugars (eg. fructose, galactose, arabinose, levulose, lactose, maltose and dry whey powder) react with sodium hydroxide solutions above 1% at temperatures above 85°C and can generate fumes of carbon monoxide.

11. TOXICOLOGICAL INFORMATION (see also box 2)

ACUTE TOXICITY	Oral	: Ingestion may cause irritation of the digestive system, nausea and vomiting. In severe cases ingestion may cause haematemesis, oesophageal and gastric perforation.
	Inhalation	: No data available.
	Dermal	: No data available.
CORROSIVITY / IRRITATION	Skin	: Irritating to skin.
	Eyes	: Irritating to eyes.
	Respiratory tract	: Inhalation of the vapour or mist may cause irritation of the respiratory system.
SENSITISATION	Skin	: Contains no known skin sensitisers.
	Respiratory	: Contains no known respiratory sensitisers.
REPEATED-DOSE TOXICITY		: Product does not contain any components known to have any effects relating to repeated-dose toxicity.
MUTAGENICITY		: Product does not contain any components known to have a mutagenic effect.
CARCINOGENICITY		: Product does not contain any components known to have a carcinogenic effect.
REPRODUCTIVE TOXICITY	Fertility	: Product does not contain any components known to be toxic to the reproductive system, and having effects on fertility.
	Developmental	: Product does not contain any components known to be toxic to the reproductive system, and having effects on development
OTHER INFORMATION		: No specific antidote known.

12. ECOLOGICAL INFORMATION

GENERAL INFORMATION	: The full ecotoxicological profile of this product has not been evaluated. Do not contaminate the environment.
ECOTOXICITY DATA	: Sodium hydroxide is toxic to fish and algae. Concentrations greater than 4mg/l as 100% may be lethal to fish. Increasing pH to 10 or more is lethal to aquatic organisms.
MOBILITY (of appropriate constituents)	: No data available.
PERSISTENCE AND DEGRADABILITY (of appropriate constituents)	: No data available.
BIOACCUMULATIVE POTENTIAL (of appropriate constituents)	: No data available.
ENVIRONMENTAL CONSIDERATIONS	: DO NOT contaminate watercourses or ground. This product does not contain any substances that are classified as dangerous to the environment. Thus, when supplied, used and disposed of as directed this product is not expected to present a danger to the environment.
OTHER ADVERSE EFFECTS	: None known.

13. DISPOSAL CONSIDERATIONS

DISPOSAL OF WASTE	: Waste should be disposed of in accordance with local, State or National requirements.
DISPOSAL OF CONTAINERS	: Empty containers should be disposed of in accordance with local, State or National requirements.
UK SPECIAL WASTE REGULATIONS, 1996	: <u>Hazard Code: H4 - Irritant</u> <u>Components making the waste special and their concentrations</u> : Sodium hydroxide ≤2.5% w/w
NOTE FOR DISPOSAL	: Disposal should be in accordance with local, State or National requirements. For further advice about disposal, in the UK, contact the local office of the Environment Agency (England and Wales) or Scottish Environment Protection Agency. Local rate from anywhere in the UK: 0845 9333111.

14. TRANSPORT INFORMATION (International unless otherwise indicated)

<u>UN NUMBER</u> : UN 1760	<u>UK HAZCHEM EAC</u> : 2X	<u>ADR HIN</u> : 80
<u>UK CDGRoad Transport Category</u> : 2	<u>Tremcard Reference No.</u> :	<u>IMDG EMS</u> : 8-15
	<u>CEFC TEC (R)- 80G20</u>	
<u>UK CDGCPL2 CARRIAGE</u> :		
CLASS :	8	
PROPER SHIPPING NAME :	Corrosive liquid, N.O.S. (contains sodium hydroxide)	
PACKING GROUP :	II	
LIMITED QUANTITY EXEMPTIONS :	Maximum quantity per inner receptacle is 500ml. Maximum quantity per outer package is 30kg.	
SPECIAL REQUIREMENTS :	Not required.	
LABELS :	Corrosive diamond unless supplied under Limited Quantity Exemptions.	
<u>IMDG 2000 (SEA) CARRIAGE</u> :		
CLASS :	8	
PROPER SHIPPING NAME :	Corrosive liquid, N.O.S. (contains sodium hydroxide)	
PACKING GROUP :	II	
LIMITED QUANTITY EXEMPTIONS :	Maximum quantity per inner receptacle is 500ml. Maximum quantity per outer package is 30kg. Combination packs only.	
SPECIAL REQUIREMENTS :	Not required.	
LABELS :	Corrosive diamond unless supplied under Limited Quantity Exemptions.	
<u>ADR 2001 (ROAD) CARRIAGE</u> :		
CLASS :	8	
PROPER SHIPPING NAME :	Corrosive liquid, N.O.S. (contains sodium hydroxide)	
PACKING GROUP :	II	
LIMITED QUANTITY EXEMPTIONS :	Maximum quantity per inner receptacle is 1 litre. Maximum quantity per outer package is 4 litres. Combination packs only.	
SPECIAL REQUIREMENTS :	Not required.	
LABELS :	Corrosive diamond unless supplied under Limited Quantity Exemptions.	

15. REGULATORY INFORMATION

INDICATION OF DANGER	HEALTH AND SAFETY INFORMATION (see also box 2)
Xi - IRRITANT : R36/38 : Irritating to eyes and skin.	
SAFETY PHRASES : S26 : In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.	
S28 : After contact with skin, wash immediately with plenty of water.	
S36/37/39 : Wear suitable protective clothing, gloves and eye/face protection.	
S46 : If swallowed, seek medical advice immediately and show this container or label.	
S60 : This material and its container must be disposed of as hazardous waste.	
LEGISLATION : This product is classified, in the UK, under The Chemicals (Hazard Information and Packaging for Supply) Regulations, 2002 (CHIP 3), as dangerous for supply.	
This product is classified, in the UK, under the Carriage of Dangerous Goods (Classification, Packaging and Labelling) and Use of Transportable Pressure Receptacles CDGCPL2 Regulations 1996, as dangerous for carriage.	

16. OTHER INFORMATION and indication of revisions

The information given on this Safety Data Sheet (SDS) does not constitute an assessment in accordance with the Control of Substances Hazardous to Health (COSHH) Regulations 1999.
This product is to be used in accordance with the label and the Rentokil Hygiene Technical Manual.
Changes have been made to the content of boxes 2, 3, 7, 8, 11, 12, 13, 14, 15 & 16 (as indicated by the thick lines on the left-hand side of the boxes) compared with issue 06.

SDS No. 251

BT 110 – CHIP 3

PAGE: 4 of 4

Before using any product, ensure that you read and understand its label. The information contained in this safety data sheet is, to the best of our knowledge and belief, accurate and reliable at the time of publication. The information relates only to the specific material designated in this safety data sheet and may not be valid for such material if it is used in combination with any other material(s) or any other use than that specified herein. Rentokil Initial UK Ltd is not liable for the use of this product for any other purpose than that described in this safety data sheet. This does not affect your statutory rights. It is the user's responsibility to satisfy him/herself as to the suitability in completeness of such information for his/her own particular use.
--

Copyright © (2002) Rentokil Initial plc, R&D Division, Felcourt, East Grinstead, West Sussex, RH19 2JY, England

Telephone: +44 (0) 1342 833022 Fax: +44 (0) 1342 326229 Web: www.ri-research.com