

Safety Data Sheet

DATE : 01 : 10 : 2002

REVISION (see box 16)


ISSUE NO : 05

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1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND COMPANY

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| PRODUCT NAME | : BT 120 |
| DESCRIPTION | : A colourless, odourless liquid. An alkalinity builder for use in boiler treatments. |
| 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

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| CLASSIFICATION OF PRODUCT (SUPPLY - Use) UK CHIP 3 (The Chemicals (Hazard Information and Packaging for Supply) Regulations, 2002) / EC Directive 1999/45. C - CORROSIVE : R35 : Causes severe burns. | DANGER SYMBOL (UK CHIP 3) : (Black on orange background)  |
| ADVERSE PHYSICOCHEMICAL, HUMAN HEALTH AND ENVIRONMENTAL EFFECTS (see also box 11) : Hydrogen gas may be evolved on reaction with aluminium, brass, tin and zinc. Carbon dioxide may be produced in closed dairy equipment. Causes severe burns to eyes and skin on contact. If inhaled may cause damage to upper respiratory tract or possibly lung tissue. If ingested may cause severe damage to mucous membranes or deeper tissue of mouth, throat, oesophagus and stomach. In severe cases death may result from subsequent penetration into vital areas. Adverse effects on the environment are unlikely, provided that the product is used as intended. | CORROSIVE |

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) |
|-----------|--|--|
| > 10 ≤ 25 | 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)

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| 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

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| FIRE EXTINGUISHER - TYPES | : Non-combustible. Use extinguishing media appropriate to other materials involved in and/or to the circumstances of the fire. |
| SPECIAL FIRE-FIGHTING PROCEDURES | : Wear self-contained breathing apparatus and suitable personal protective equipment. |
| SPECIAL EXPOSURE HAZARDS | : Hydrogen gas may be evolved on reaction with aluminium, brass, tin and zinc. Carbon dioxide may be produced in closed dairy equipment. |

6. ACCIDENTAL RELEASE MEASURES

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| 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. |

7. HANDLING AND STORAGE (see also box 8)

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| HANDLING | : Avoid contact with skin; wash immediately with plenty of water in the event of accidental exposure. Wear suitable protective clothing, gloves and eye/face protection. |
| 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. If high temperatures are likely to be experienced containers must be stress relieved, but apart from vent and overflow connections, storage containers must be closed vessels. |

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

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| OCCUPATIONAL EXPOSURE LIMITS | : OES for sodium hydroxide is 2 mg/m ³ short-term exposure (15 min 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 close fitting chemical goggles. |
| 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 protection. |
| 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

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| APPEARANCE AND ODOUR | : A clear, colourless liquid. | | |
| 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. 109.5°C |
| SPECIFIC GRAVITY | : 1.202 - 1.222 | MELTING POINT/RANGE | : Starts at ca. -22°C |
| | | pH | : 13 (minimum) |
| OXIDISING PROPERTIES | : Reacts violently with acids and attacks aluminium, brass, tin, zinc and their alloys. | | |
| EXPLOSIVE PROPERTIES | : Can react violently or explosively with many organic chemicals particularly chlorinated hydrocarbons. | | |
| VISCOSITY | : Not determined. | EVAPORATION RATE | : Not determined. |
| OTHER DATA | : None known. | VAPOUR DENSITY | : Not determined. |

10. STABILITY AND REACTIVITY

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| CONDITIONS TO AVOID | : Avoid extremes of temperature, e.g. below 0°C and above 40°C. |
| MATERIALS TO AVOID | : Avoid contact with acids, ammonia, phosphorus, organic chemicals, aluminium, brass, tin, zinc and alloys of these metals. |
| HAZARDOUS BREAKDOWN PRODUCTS | : Hydrogen gas may be evolved on reaction with aluminium, brass, tin and zinc. Carbon dioxide may be produced in closed dairy equipment. |

11. TOXICOLOGICAL INFORMATION (see also box 2)

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| ACUTE TOXICITY | Oral | : Ingestion can cause severe damage to the mucous membranes or deeper tissue of mouth, throat, oesophagus and stomach. In severe cases death may result from subsequent penetration into vital areas. |
| | Inhalation | : Inhalation may cause damage to upper respiratory tract or possibly lung tissue depending on severity of exposure. |
| | Dermal | : No data available. |
| CORROSIVITY / IRRITATION | Skin | : Causes severe burns on contact with skin. |
| | Eyes | : Causes severe burns on contact with eyes. |
| | Respiratory tract | : No data available. |
| 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

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| 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 life. |
| 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

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| 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:</u> H8 – Corrosive <u>Components making the waste special and their concentrations :</u> Sodium hydroxide > 10 ≤ 25% 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)

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| <u>UN NUMBER</u> : UN 1824 | <u>UK HAZCHEM EAC</u> : 2R | <u>ADR HIN</u> : 80 |
| <u>UK CDGRoad Transport Category</u> : 2 | <u>Tremcard Reference No.</u> : CEFIC TEC (R) - 80G12 | <u>IMDG EMS</u> : 8-06 |
| <u>UK CDGCPL2 CARRIAGE</u> : | | |
| CLASS : | 8 | |
| PROPER SHIPPING NAME : | Sodium hydroxide, Solution | |
| PACKING GROUP : | II | |
| LIMITED QUANTITY EXEMPTIONS : | Maximum quantity per inner receptacle is 500 ml. Maximum quantity per outer package is 30 kg. | |
| SPECIAL REQUIREMENTS : | Not required. | |
| LABELS : | Corrosive diamond unless supplied under Limited Quantity Exemptions. | |
| <u>IMDG 2000 (SEA) CARRIAGE</u> : | | |
| CLASS : | 8 | |
| PROPER SHIPPING NAME : | Sodium hydroxide, Solution | |
| PACKING GROUP : | II | |
| LIMITED QUANTITY EXEMPTIONS : | Maximum quantity per inner receptacle is 500 ml. Maximum quantity per outer package is 30 kg. | |
| SPECIAL REQUIREMENTS : | Combination packs only. | |
| LABELS : | Not required. | |
| LABELS : | Corrosive diamond unless supplied under Limited Quantity Exemptions. | |
| <u>ADR 2001 (ROAD) CARRIAGE</u> : | | |
| CLASS : | 8 | |
| PROPER SHIPPING NAME : | Sodium hydroxide, Solution | |
| PACKING GROUP : | II | |
| LIMITED QUANTITY EXEMPTIONS : | Maximum quantity per inner receptacle is 1 litre. Maximum quantity per outer package is 4 litres. | |
| SPECIAL REQUIREMENTS : | Combination packs only. | |
| LABELS : | Not required. | |
| LABELS : | Corrosive diamond unless supplied under Limited Quantity Exemptions. | |

15. REGULATORY INFORMATION

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| INDICATION OF DANGER | HEALTH AND SAFETY INFORMATION (see also box 2) | |
| C –CORROSIVE : | R35 | : Causes severe burns. |
| 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. |
| | S6/37/39 | : Wear suitable protective clothing, gloves and eye/face protection. |
| | S45 | : In case of accident or if you feel unwell seek medical advice immediately (show the label where possible). |
| | 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, 8, 11, 12, 13, 14, 15 & 16 (as indicated by the thick lines on the left-hand side of the boxes) compared with issue 04.

SDS No. 250

BT 120 – CHIP 3

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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.

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