

## SAFETY DATA SHEET (SDS)

### 1. IDENTIFICATION OF SUBSTANCE & COMPANY IDENTIFICATION:

Product **LEKSOL<sup>®</sup>**  
 Use A Specialty Cleaning Solvent for General Degreasing and Varied Applications

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Emergency Information:

**TEL NUMBER +44 (0) 1226 770787**

### 2. HAZARDS IDENTIFICATION.

Product is classed as Toxic under Chemicals (Hazard Information and Packaging) Regulations (CHIP3) and EC Directives 67/548 (substances) and/or 1999/45 (preparations) including subsequent amendments up to the issue date of this document. Common sense precautions should be observed in handling and use.

**Risks:** R20 Harmful by inhalation, R36/37/38 Irritating to eyes, respiratory system and skin, R60 Reproductive toxin cat 2 - May impair fertility, R63 Reproductive toxin cat 3 - Possible risk of harm to the unborn child, R67 Vapours may cause drowsiness and dizziness.

**GHS Statements:** H332 Harmful if inhaled, H315 Causes skin irritation, H320 Causes eye irritation, H335 May cause respiratory irritation, H336 May cause drowsiness or dizziness, H360 May damage fertility or the unborn child,

#### **EMERGENCY OVERVIEW:**

Clear colourless liquid. Slight odour. Non-flammable. Spills of these organic liquids on hot fibrous insulations may lead to lowering of the auto-ignition temperatures possible resulting in spontaneous combustion.

### 3. COMPOSITION AND INFORMATION ON INGREDIENTS.

**Major component** n-Propyl Bromide with stabilizers

<b>Hazardous Ingredients</b>	<b>CAS NO</b>	<b>EINECS NO</b>	<b>WEIGHT %</b>	<b>NATURE OF HAZARD</b>
n-Propyl bromide (Note 1)	106-94-5	203-445-0	> 94	Xn, Harmful, R11, R60 Rep Cat 2, R63 Rep Cat 3, R67 R48/20, R36/37/38
Butylene Oxide	106-88-7	203-438-2	< 1	Xn, Harmful, F, Highly Flammable, R11, R36/37/38

Note 1 Also known as 1-bromopropane,

### 4. FIRST AID

#### **Symptoms:**

Effects due to overexposure when:

**In contact with eyes:** May cause irritation to eyes.

**In contact with skin:** Mildly irritating to skin. Prolonged or repeated contact will result in defatting leading to cracking and dermatitis.

**Inhaled:** Vapours and aerosols may irritate the respiratory system. Harmful by inhalation.

**Ingested:** Will cause burning sensation to mouth, throat and digestive tract.  
 Inhalation or ingestion may cause central nervous system effects, irregular pulse and systemic effects

#### **Action:**

**General:** If you feel unwell seek medical advice (show this information or the container label where possible). Do not give anything by mouth to unconscious person.

**Eye:** Irrigate with flowing water immediately and continuously for at least 15 minutes. Consult medical personnel.

**Skin:** Remove contaminated clothing and drench skin with water or wash off in flowing water or shower. Wash affected area with soap and water. Seek medical advice. Launder contaminated clothing before reuse.

**Ingestion:** If swallowed seek medical attention. Do not induce vomiting, unless instructed to do so by medical personnel. Rinse mouth with water but do not swallow.

**Inhalation:** Remove to fresh air. If breathing is difficult, a trained person may administer oxygen. Apply artificial respiration only if the person is not breathing. Seek immediate medical attention.

#### **Note to physician:**

Treat by observation and supportive measures as indicated by the patient's condition. No specific antidote.

**5. FIRE FIGHTING MEASURES.**

**EXTINGUISHING MEDIA:** Water fog or fine spray. Carbon dioxide. Dry chemical. Foam. Alcohol resistant foams (ATC type) are preferred if available. General-purpose synthetic foams (including AFFF) or protein foams may function but much less effectively.

**MEDIA TO BE AVOIDED:** None known.

**FIRE FIGHTING INSTRUCTIONS:** Keep people away. Isolate fire area and deny unnecessary entry. Smoke from fires is toxic; take precautions to protect personnel from exposure, wear positive-pressure self-contained breathing apparatus (SCBA). Vapours are heavier than air and may travel considerable distances. Take care on the use of direct water stream, which may spread fire. In the event of an adjacent fire, cool containers with water spray.

**HAZARDOUS COMBUSTION PRODUCTS:** During a fire, smoke may contain the original material in addition to unidentified toxic and/or irritating compounds. Hazardous combustion products may include and are not limited to: carbon monoxide, carbon dioxide, hydrogen halides.

When tested according to ASTM D56 (TCC), ASTM D92 (COC) or ASTM D93 (TCC) the product does not exhibit a flash point.

**6. ACCIDENTAL RELEASE MEASURES.**

**PROTECT PEOPLE:** Wear suitable protective clothing including eye/face protection and gloves and wear suitable respiratory protection. Evacuate the area and keep personnel upwind.

**PROTECT THE ENVIRONMENT:** Keep out of sewers. If contamination of drainage systems or water courses is unavoidable, immediately inform appropriate authorities

**CLEAN UP:** Absorb with material such as dirt or sand. If available, use foam to smother or suppress. Remove contaminated material to safe location for subsequent disposal.

**7. HANDLING AND STORAGE.**

**HANDLING:** Use only in well ventilated areas and avoid spills. Avoid skin and eye contact. Wear full protective clothing for prolonged exposure, and for high concentrations. Use approved respirator if air contamination is above acceptable levels. Containers, even those that have been emptied, can contain vapours. Do not breathe vapour. When using do not eat drink or smoke.

**STORAGE:** Keep in original container and tightly closed when not in use. Store in a cool well-ventilated place and do not store drums in open sunshine. Keep away from heat sources. Any spillages should be prevented from entering drains or watercourses.

**8. EXPOSURE CONTROL/PERSONAL PROTECTION.**

**ENGINEERING CONTROLS:** Good general ventilation should be sufficient for most conditions. In case of insufficient ventilation, wear suitable respiratory equipment. L.E.V. should be provided which maintain airborne concentrations below the relevant guidelines and to restrict the exposure. Personal protective equipment to be used as a last resort. When using, do not eat, drink, or smoke.

**PERSONAL PROTECTIVE EQUIPMENT:**



**Eye/face protection:** Use chemical goggles or face shield. Eyewash stations should be provisioned.

**Skin protection:** Use neoprene or nitrile gloves, boots, and aprons.

EPA recommended gloves: North - Silver Shield, North Viton F123, Ansell Edmont 4H 87-4000.

**Respiratory protection:** Wear approved respirator if exposure likely to exceed TLV, or OES. In poorly ventilated areas or confined spaces, use an airline respirator or self-contained breathing apparatus.

**EXPOSURE GUIDELINES:** The toxicology of n-Propyl Bromide is still under review by various regulatory authorities. In accordance with the recommendation of the US EPA, Amity would suggest the following as a manufacturers recommended Workplace Exposure Guide (WEG):

n-propyl bromide 25 ppm (131 mg/m<sup>3</sup>) LTEL (8 hour TWA)

**9. PHYSICAL AND CHEMICAL PROPERTIES.**

**APPEARANCE:** clear colourless liquid, volatile, heavier than water.

**ODOUR:** slight sweet smell

**VISCOSITY:** 0.42 centipoises at 25 °C

**VAPOUR PRESSURE:** 110.8 mm Hg at 20 °C

**VAPOUR DENSITY:** (Air=1) 4.3

**MELTING POINT:** -110 °C

**BOILING POINT:** 69 °C

**SOLUBILITY IN WATER:** 2.4 g/L at 25 °C

**DENSITY (g/cm<sup>3</sup> at 20 °C):** 1.32

**VOC CONTENT:** > 800 g/L

**FLASH POINT (Tag Closed Cup, ASTM D56):** None

**AUTOIGNITION TEMPERATURE:** 490 °C

**FLAMMABILITY LIMITS (ASTM E681):** LEL 3.8%; UEL 9.7%

**THERMAL DECOMPOSITION TEMPERATURE:** 204 °C

**10. STABILITY AND REACTIVITY**

**CHEMICAL STABILITY:** Stable under recommended storage conditions. Product acid acceptance test should be carried out periodically to ensure stability of product (Details available on request).

**CONDITIONS TO AVOID:** Avoid high temperatures.

**INCOMPATIBILITY WITH OTHER MATERIALS:** Product is incompatible with strong oxidizing agents. Product is compatible with most metals except Calcium, finely powdered Aluminium, and alkali metals.

**HAZARDOUS DECOMPOSITION:** Does not normally decompose. Decomposition will normally only occur if product is involved in a fire.

**HAZARDOUS POLYMERIZATION:** Will not occur.

**11. TOXICOLOGICAL INFORMATION:**

No significant health hazard when properly used for the application it was designed for.

See section 4 for exposure symptoms

Carcinogenicity: NTP: NO IARC: NO OSHA: NO ACGIC: NO  
Not included in the NTP 11<sup>th</sup> Report on Carcinogens.

Mutagenicity: Ames test results gave a negative indication for mutagenicity.

Sensitization: No known skin or respiratory sensitization effects.

Reproductive: Some evidence based on studies with rats, indicate that reproduction and foetal development may be adversely affected, although there is no corroborative data from human exposure studies.

**Data:**

**LD50 (rats oral):** 4260mg/kg

**LC50 (rats inhalation):** 253,000mg/m<sup>3</sup>/0.5hrs

**12. ECOLOGICAL INFORMATION.****ENVIRONMENTAL FATE:**

Sinks in water. Bio-concentration potential is low.

**DEGRADATION AND PERSISTENCE (ECOTOXICITY):**

Not readily biodegradable. Possesses a low atmospheric lifetime. Large volumes may penetrate soil and contaminate groundwater.

**Data:**

Log Pow = 2.10

**13. DISPOSAL CONSIDERATIONS.**

**DISPOSAL:** Do not discharge into sewers, on the ground or into any body of water. All disposal methods must be in compliance with local laws and regulations. (Regulations may vary in different locations.)

For unused and uncontaminated product, the preferred disposal options include sending to a licensed, permitted recycler or reclaimer. Incineration or other thermal destruction device should be used to dispose of unwanted/contaminated product. As a service to its customers Amity can arrange collection of surplus/used product for recycling.

Packaging containers are recyclable. Rinse out well with water and send for recycling or dispose of in accordance with local authority requirements.

**14. TRANSPORT INFORMATION**

UN No: 2344 – special provision A3(air), 223 (sea) and Section 2.1.2.5 (ADR – road) applies.

Proper Shipping Name: Bromopropanes

Classification: not regulated for transport,

Packing Group: III

Label for Supply: None

**15. REGULATORY INFORMATION.**

This Safety Data Sheet is provided in compliance with the European REACH Directive (1907/2006/EC) and is in agreement with the GHS (Globally Harmonised System) for the classification and labelling of Dangerous Chemicals. This safety data sheet is distributed solely for the purpose of the Health and Safety at Work Act 1974; included under this heading is article 10 of Directive 88/379/EEC.

All components that make up this product are registered, or are not required to be listed, with:

EUROPEAN INVENTORY OF NEW AND EXISTANT CHEMICAL SUBSTANCES (EINECS), and  
TOXIC SUBSTANCES CONTROL ACT (TSCA).

REACH: Regulation 1907/2006/EC – The raw materials used in this preparation have been pre-registered in accord with the requirements of REACH.

**15. REGULATORY INFORMATION. (Continued)**

Label for Supply: :

GHS Symbols



Warning

Harmful if inhaled

Eye Irritation cat2, Skin Irritation cat2  
May cause respiratory irritation Cat 3

Warning

May damage fertility  
or the unborn child

The preparation requires a formal COSHH assessment, which should ensure that employees are aware of hazards/precautions detailed in this data sheet. The COSHH assessment should also ensure that recommended safety equipment is available and, where applicable, the exposure limits detailed in section 8 are not being exceeded.

**Risks:**

- R20 Harmful by inhalation.  
 R36/37/38 Irritating to eyes, respiratory system and skin  
 R60 Reproductive toxin cat 2 - May impair fertility,  
 R63 Reproductive toxin cat 3 - Possible risk of harm to the unborn child,  
 R67 Vapours may cause drowsiness and dizziness.

**Safety phrases:**

- S20/21 When using, do not eat, drink or smoke.  
 S23 Do not breathe vapour;  
 S24/25 Avoid contact with skin and eyes.  
 S37/39 Wear suitable gloves and eye/face protection.  
 S51 Use only in well-ventilated areas.

**U.K Regulatory References:**

C.H.I.P3 The Chemicals (Hazard Information And Packaging Regulations)  
 The Carriage of Dangerous Goods by Road and Rail Regulations.  
 Occupational Exposure Limits Guidance Note EH40

**Other Reference:**

Sax's Dangerous Properties of Industrial Materials, 8<sup>th</sup> edition.

**16. OTHER INFORMATION.**

The data contained in this data sheet is based on Amity's present knowledge of the health and safety properties of the product, and is believed to be accurate and given in good faith.

The physical and chemical properties are typical values only and do not constitute the specification of the product, which will be agreed separately.

The data given here only applies when product is used for proper application(s). The product is not sold as suitable for applications other than those identified at section 1, usage as such may cause risks not mentioned in this sheet.

It is for the customer to satisfy itself on the suitability of the product for its own particular purpose. Amity gives no warranty as to the fitness of the product for any particular purpose and any implied warranty or condition (statutory or otherwise) is excluded, except to the extent that law prevents such exclusion.

Full details of the Risk Phrases used in Section 2. are given below;

- R11 Highly Flammable  
 R48/20 Harmful, danger of serious damage to health by prolonged exposure through inhalation

The following definitions of terms and abbreviations used within this document are used:

- NTP: National Toxicology Programme (US);  
 IARC: International Agency for Research on Cancer;  
 OSHA: Occupational Safety & Health Administration (US);  
 ACGIH: American Conference of Governmental Industrial Hygienists;  
 CAS: Chemical Abstracts Number;  
 OES: Occupational Exposure Standard.  
 TLV: Threshold Limit Value.  
 TWA: Time Weighted Average.  
 LTEL: Long Term Exposure Limit  
 STEL: Short Term Exposure Limit.  
 HSE: Health & Safety Executive (UK)  
 LEV: Local Exhaust Ventilation

It is the responsibility of the user to ensure safe working conditions. The health hazards and general information contained within this Material Safety Data Sheet are given as a guide to the precautions required to maintain a safe working environment.