

SAFETY DATA SHEET

1. Product and Company Identification

Product Name: LRB 55 Mold Release
Product Code: LRB 55
Product Use: mold release.

Chemical Type: Solvent Blend

Manufacturer: Plastic Process Equipment Inc.
Address: 8303 Corporate Park Dr.
Macedonia, Ohio 44056

Revision Date: 6/17/2015
Emergency: Chemtrec (800)424-9300
Phone: (800) 362-0693

NOTE: The information contained herein is accurate to the best of our knowledge. We do not suggest or guarantee that any hazards listed herein are the only ones which exist. Plastic Process Equipment Inc provides this information as guidance for providing personal protection to your employees. The user should review the original manufacturer's MSDS and recommendations. The user has the sole responsibility to determine the suitability of the materials for any use and the manner of use contemplated. The user must meet all applicable safety and health standards.

2. Hazards Identification

Emergency Overview

Form: Liquid **Physical state:** Liquid

CAUSES RESPIRATORY TRACT, EYE AND SKIN IRRITATION. MAY BE HARMFUL IF INHALED OR SWALLOWED. ASPIRATION HAZARD. CAN ENTER LUNGS AND CAUSE DAMAGE. PROLONGED OR REPEATED CONTACT MAY DRY SKIN AND CAUSE IRRITATION. MAY CAUSE TARGET ORGAN DAMAGE, BASED ON ANIMAL DATA. CANCER HAZARD - CAN CAUSE CANCER.

Do not ship lightly stabilized grades in aluminum trailers.

Do not ship in containers made of zinc, aluminum, or copper due to product incompatibility.

Do not swallow. Do not breathe vapor or mist. Avoid contact with eyes, skin and clothing. Use only with adequate ventilation. Keep container tightly closed and sealed until ready for use. Wash thoroughly after handling.

GHS Classification

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Skin irritation (Category 2), H315

Eye irritation (Category 2A), H319

Germ cell mutagenicity (Category 2), H341

Carcinogenicity (Category 1B), H350

Specific target organ toxicity - single exposure (Category 2), H371

Acute aquatic toxicity (Category 3), H402

Chronic aquatic toxicity (Category 3), H412

GHS-Labeling

Symbol(s) :



Signal Word: Danger

Hazard statement(s)

H315 Causes skin irritation.
H319 Causes serious eye irritation.
H341 Suspected of causing genetic defects.
H350 May cause cancer.
H371 May cause damage to organs.
H412 Harmful to aquatic life with long lasting effects.

Precautionary statement(s)

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P260 Do not breathe dust/ fume/ gas/ mist/ vapors/ spray.
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P273 Avoid release to the environment.
P280 Wear protective gloves/ eye protection/ face protection.
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313 IF exposed or concerned: Get medical advice/ attention.
P309 + P311 IF exposed or if you feel unwell: Call a POISON CENTER or doctor/physician.
P321 Specific treatment (see supplemental first aid instructions on this label).
P332 + P313 If skin irritation occurs: Get medical advice/ attention.
P337 + P313 If eye irritation persists: Get medical advice/ attention.
P362 Take off contaminated clothing and wash before reuse.
P501 Dispose of contents/ container to an approved waste disposal plant..

Potential acute health effects

May be harmful if inhaled. Irritating to respiratory system. Can irritate eyes, nose, mouth and throat. Can cause central nervous system (CNS) depression. May cause drowsiness and dizziness. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure. May be harmful if swallowed. Can cause central nervous system (CNS) depression. Aspiration hazard if swallowed. Can enter lungs and cause damage. Irritating to mouth, throat and stomach. Causes skin irritation. Defatting to the skin. Causes serious eye irritation.

Over-exposure signs/symptoms

Inhalation:

Adverse symptoms may include the following: irritation, nausea or vomiting, headache, drowsiness/fatigue, dizziness/vertigo, unconsciousness, death

Ingestion:

Adverse symptoms may include the following: irritation, nausea or vomiting, headache, dizziness/vertigo, unconsciousness, Aspiration hazard if swallowed, pulmonary edema, chemical pneumonitis

Skin: Adverse symptoms may include the following: irritation, redness, dryness, cracking

Eyes: Adverse symptoms may include the following: pain or irritation, watering, redness

Medical conditions aggravated by overexposure

Pre-existing disorders involving any target organs mentioned in this MSDS as being at risk may be aggravated by over-exposure to this product.

NOTICE: Reports have associated repeated and prolonged OVEREXPOSURE to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents of this package may be harmful or fatal.

3. Composition / Information on Ingredients

| MATERIAL | CAS# | WT % |
|-------------------|-----------|------|
| Trichloroethylene | 79-01-6 | > 95 |
| Lecithin | 8030-76-0 | 1-5 |

4. First Aid Measures

General advice : Move out of dangerous area. Show this material safety data sheet to the doctor in attendance. Material may produce a serious, potentially fatal pneumonia if swallowed or vomited.

If inhaled : Consult a physician after significant exposure. If unconscious place in recovery position and seek medical advice.

In case of skin contact : If skin irritation persists, call a physician. If on skin, rinse well with water. If on clothes, remove clothes.

In case of eye contact : Flush eyes with water as a precaution. Remove contact lenses. Protect unharmed eye. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist.

If swallowed : Keep respiratory tract clear. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician. Take victim immediately to hospital.

5. Fire Fighting Measures

Flammability of the product

Emits toxic fumes under fire conditions. Vapors are heavier than air and may spread along floors. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Vapor concentration in a confined or poorly ventilated area can be ignited upon contact with a high energy spark, flame, or high intensity source of heat. This can occur at concentrations ranging between the upper and lower explosion limits (by volume). In a fire or if heated, a pressure increase will occur and the container may burst. This material is toxic to aquatic life. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Extinguishing media

Suitable : Use dry chemical, CO₂, water spray (fog) or foam.

Not suitable : Do not use water jet.

Hazardous combustion products

Depending on conditions, decomposition products may include the following materials: carbon oxides, halogenated compounds, carbonyl halides. When this product is involved in fires, it can decompose to hydrogen chloride and possible traces of phosgene.

Special protective equipment for fire-fighters

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. Accidental Release Measures

Spill or Leak Instructions

Personal precautions : Use personal protective equipment. Ensure adequate ventilation.

Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

Environmental precautions : Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.

Methods for cleaning up : Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations

7. Handling and Storage

Handling: FOR INDUSTRIAL USE ONLY. KEEP OUT OF REACH OF CHILDREN

Handling

Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Do not swallow. Do not get in eyes or on skin or clothing. Do not ingest. Do not breathe vapor or mist. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use non-sparking tools. Take precautionary measures against electrostatic discharges. Vapors are heavier than air and may spread along floors. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container. This material or its vapors when in contact with flames, hot glowing surfaces or electric arcs can decompose to form hydrogen chloride gas and possible traces of phosgene. Do not use cutting or welding torches on drums that contained this product unless properly purged and cleaned. Do not ship lightly stabilized grades in aluminum trailers.

Storage

Do not store above the following temperature: 35°C (95°F). Do not store or stack aluminum in contact with this product to prevent possible solvent decomposition (stacking corrosion). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Keep away from incompatible materials. Liquid oxygen or other strong oxidants may form explosive mixtures with this product. Use appropriate containment to avoid environmental contamination.

8. Exposure Controls / Personal Protection

Exposure guidelines:

| Name | Result | ACGIH | OSHA |
|-------------------|------------|------------|----------------------------|
| trichloroethylene | TWA | 10 ppm | 100 ppm Z |
| | STEL | 25 ppm | 200 ppm Z C 300 ppm Z A |
| Lecithin | Not listed | Not listed | Not listed |

PEL= Permissible Exposure Limits
TLV= Threshold Limit Value
EL= Excursion Limit

TWA= Time Weighted Average (8 hr.)
STEL= Short Term Exposure Limit (15 min.)
WEEL= Workplace Environmental Exposure Level

Recommended monitoring procedures: If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

Engineering measures : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Respiratory: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Hands: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Eyes: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts.

Skin: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Environmental exposure controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Other Suggested Equipment: Eye wash station and emergency showers should be available. Spill containment equipment should be available.

Discretion Advised: Plastic Process Equipment Inc. takes no responsibility for determining what measures are required for personal protection in any specific application. The general information should be used with discretion.

9. Physical and Chemical Properties

| | |
|----------------------------------------------------------------|-------------------------------------------|
| Physical state: Liquid | Specific gravity: 1.46 @ 20C |
| Vapor pressure: 7.7 kPa (57.8 mm Hg) [20°C] | Odor: Ethereal. |
| Color: Colorless | Vapor density: 4.54 [Air = 1] |
| Flash point : None (by DOT test method). | Volatility: 100% (v/v), 100% (w/w) |
| Auto-ignition temperature : 420°C (788°F) | |
| Explosion limits : Lower: 7.8% Upper: 52% | |
| Boiling/condensation point: 86 to 90°C (186.8 to 194°F) | |
| Evaporation rate: 0.28 (ether (anhydrous) = 1) | |

10. Stability and Reactivity

Conditions to avoid: Keep away from ignition sources such as heat/sparks/open flame. - No smoking. When exposed to high temperatures may produce hazardous decomposition products. When this product is involved in fires, it can decompose to hydrogen chloride and possible traces of phosgene.

Materials to avoid: Keep away from the following materials to prevent strong exothermic reactions: oxidizing agents, strong alkalis, strong acids. Avoid contamination with caustic soda, caustic potash or oxidizing materials. Shock sensitive compounds may be formed.

Hazardous decomposition products: Depending on conditions, decomposition products may include the following materials: carbon monoxide, carbon dioxide, Hydrogen chloride (HCl). Phosgene gas.

Hazardous reactions: Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous polymerization will not occur.

11. Toxicological Information

COMPONENT INFORMATION

Acute toxicity

LD50 Oral - Rat - 4,920 mg/kg

LC50 Inhalation - Mouse - 4 h - 8450 ppm

LD50 Dermal - Rabbit - > 20,000 mg/kg

Skin corrosion/irritation Skin – Rabbit Result: Severe skin irritation - 24 h

Serious eye damage/eye irritation Eyes – Rabbit Result: Eye irritation - 24 h

Respiratory or skin sensitization No data available

Germ cell mutagenicity Laboratory experiments have shown mutagenic effects.

In vitro tests showed mutagenic effects

Carcinogenicity

This product is or contains a component that has been reported to be probably carcinogenic based on its IARC, OSHA, ACGIH, NTP, or EPA classification.

Possible human carcinogen

IARC: 2A - Group 2A: Probably carcinogenic to humans (Trichloroethylene)

NTP: Reasonably anticipated to be a human carcinogen (Trichloroethylene)

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Conclusion/Summary : May be harmful if swallowed or if inhaled. Aspiration hazard if swallowed. Can enter lungs and cause damage. Can cause central nervous system (CNS) depression

Chronic toxicity

Conclusion/Summary : Prolonged exposure may result in liver and kidney damage as well as immunological effects. One immunological effect that has been reported in several studies linked occupational trichloroethylene exposure to a rare but severe immunological skin disorder and accompanying hepatitis (such as Stevens-Johnson syndrome) especially in people of Asian descent. The clinical features associated with these disorders include generalized severe dermatitis and shedding of the skin, fever, abnormal liver function, jaundice, and sometimes death due to liver failure and infection. The science involved in the understanding of this association between exposure to trichloroethylene and these severe immunological skin disorders is ongoing. Loss of auditory function (hearing loss) has also been observed in laboratory animals at high trichloroethylene exposure concentrations (≥ 2000 ppm). Prudent handling practices should be followed to minimize human exposure.

12. Ecological Information

Environmental effects : This product shows a low bioaccumulation potential. Water polluting material. May be harmful to the environment if released in large quantities.

13. Disposal Considerations

The information in this MSDS pertains only to the product as shipped. Use material for its intended purpose or recycle if possible. This material, if it must be discarded, may meet the criteria of a hazardous waste as defined by US EPA under RCRA (40 CFR 261) or other State and local regulations. Measurement of certain physical properties and analysis for regulated components may be necessary to make a correct determination. If this material is classified as a hazardous waste, federal law requires disposal at a licensed hazardous waste disposal facility.

Product : The product should not be allowed to enter drains, water courses or the soil. Do not contaminate ponds, waterways or ditches with chemical or used container. Send to a licensed waste management company.

Contaminated packaging : Empty remaining contents. Dispose of as unused product. Do not re-use empty containers. Do not burn, or use a cutting torch on, the empty drum.

14. Transport Information

UN 1710, TRICHLOROETHYLENE Solution, 6.1, PG III
Do not ship in containers made of zinc, aluminum, or copper due to product incompatibility

15. Regulatory Information

EPA REGULATION:

Environmental Regulations

Tertiary butyl acetate was excluded from the Federal definition of a VOC (40 C.F.R. § 51.100(s)(5)) by the U.S. Environmental Protection Agency on November 29, 2004 (69 FR 69304). State and local definitions may vary.

SARA 302/304

This material contains a component(s) with known CAS numbers classified as hazardous substances subject to the reporting of CERCLA (40 CFR 302) and/or to the release reporting requirements of SARA (Section 302) based on reportable quantities (RQs).

| Component | RQ |
|----------------------------|---------|
| trichloroethylene 79-01-6. | 100 lbs |

SARA 311:

Acute health: Yes

Fire: No

Reactive: No

Chronic health: Yes

Sudden release of pressure: No

SARA 313: Title III of the 1986 Super fund Amendments and Reauthorization Act (SARA) and 40 CFR PART 372. trichloroethylene 79-01-6, 2-butylene oxide (CAS 106-88-7).

California Prop. 65

WARNING: This product contains a chemical known to the State of California to cause cancer

All the chemicals used in this product are TSCA listed.

Check with your local regulators to be sure all local regulations are met.

16. Other Information

Hazard ratings This information is intended solely for the use of individuals trained in the NFPA and/or HMIS systems.

NFPA: Health: 2 Flammability: 0 Reactivity: 0

HMIS: Health: 2 Flammability: 0 Reactivity: 0

RATING: 4-EXTREME 3-HIGH 2-MODERATE 1-SLIGHT 0-INSIGNIFICANT

Note:

For industrial use only. The information contained herein is accurate to the best of our knowledge. We do not suggest or guarantee that any hazards listed herein are the only ones which exist. Plastic Process Equipment Inc makes no warranty of any kind, express or implied, concerning the safe use of this material in your process or in combination with other substances. Effects can be aggravated by other materials and/or this material may aggravate or add to the effects of other materials. This material may be released from gas, liquid, or solid materials made directly or indirectly from it. User has the sole responsibility to determine the suitability of the materials for any use and the manner of use contemplated. User must meet all applicable safety and health standards. Possession of an MSDS does not indicate that the possessor of the MSDS was a purchaser or user of the subject product.