

SECTION 1 - Identity

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| Product Name: | SILVER SOLDER | Manufacturer: | The Contenti Company |
| Generic Name: | NONE - MIXTURE | Address: | 515 Narragansett Park Drive Pawtucket, RI 02861 |
| Chemical Family: | NONE - MIXTURE | Manufacturer Phone #: | 401-305-3000 |
| Formula | PROPRIETARY | Spill, Leak, Fire, Exposure, Accident: | Chemtrec 800-424-9300 |

SECTION 2 - Ingredient Information

| Chemical Name | Wt. % | OSHA PEL | ACGIH | Other | CAS No. |
|---------------|-------|------------------------|------------------------|-------|-----------|
| SILVER | | 0.10mg/m ³ | 0.10mg/m ³ | | 7440-22-4 |
| COPPER | | 1.00 mg/m ³ | 1.00 mg/m ³ | | 7440-50-8 |
| ZINC | | 5.00 mg/m ³ | 5.00 mg/m ³ | | 7440-66-6 |
| CADMIUM | | 0.10 mg/m ³ | 0.10 mg/m ³ | | 7440-43-9 |

SECTION 3 – Physical Characteristics

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|---------------------------------|---|
| Boiling Point: | N/A |
| Vapor Pressure: (mm Hg) | N/A |
| Vapor Density: (air = 1) | N/A |
| Specific Gravity: | N/A |
| Melting Point: | N/A |
| Evaporation Rate: | N/A |
| Solubility in Water: | INSOLUBLE |
| Appearance & Odor | SILVER OR YELLOW METALLIC STRIP, CUT PIECES OR DWT PIECES |

SECTION 4 – Fire & Explosive Hazard Data

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| Flash Point: (method used) | N/A |
| Upper Explosion Limit: | N/A |
| Lower Explosion Limit: | N/A |
| Extinguishing Media: | CO2, DRY CHEMICAL, FOAM, WATER |
| Special Firefighting Procedures: | WEAR SELF CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING. |
| Unusual Fire & Explosion Hazards: | NONE |

SECTION 5 – Reactivity Data

| | | | |
|---|-------------------|----------------------------------|----------------|
| Stability: | STABLE | Hazardous Decomposition: | NONE |
| Incompatibility (materials to avoid) | ACIDS AND ALKALIS | Hazardous Polymerization: | WILL NOT OCCUR |

SECTION 6 – Health Hazard Data

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|------------------------|---------|-------------------------|----|------------------------|----|
| CARCINOGENICITY | NPT: NO | IARC MONOGRAPHS: | NO | OSHA REGULATED: | NO |
|------------------------|---------|-------------------------|----|------------------------|----|

EFFECTS OF OVEREXPOSURE

| | |
|----------------|---|
| SILVER: | OVEREXPOSURE TO SILVER DUSTS OR FUMES MAY CAUSE A PERMANENT GRAYISH PIGMENTATION OF THE SKIN AND CAN CAUSE IRRITATION OF THE SKIN AND MUCOUS MEMBRANES. PROLONGED OVEREXPOSURE CAN LEAD TO KIDNEY DAMAGE |
| COPPER: | INDUSTRIAL EXPOSURE TO COPPER FUMES, DUSTS OR MISTS RESULTS IN METAL FUME FEVER WITH ATROPHIC CHANGES IN NASAL MUCOUS MEMBRANES. CHRONIC POISONING RESULTS IN WILSON'S DISEASE, CHARACTERIZED BY HEPATIC CIRRHOSIS, BRAIN DAMAGE, DEMYELINATION, RENAL DISEASE AND COPPER DEPOSITION IN THE CORNEA. |
| ZINC: | EXCESSIVE INHALATION OF FRESHLY FORMED ZINC MAY PRODUCE CHARACTERISTIC SYMPTOMS KNOWN AS METAL FUME FEVER OR ZINC SHAKES. ONSET OF THE SYMPTOMS MAY BE DELAYED 4 TO 12 HOURS SYMPTOMS INCLUDE: IRRITATION OF THE NOSE, MOUTH |

FIRST AID PROCEDURES

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| Skin: | PROMPTLY WASH WITH SOAP AND WATER; THEN FLUSH WITH WATER UNTIL ALL MATERIAL IS REMOVED. REMOVE CONTAMINATED CLOTHING PROMPTLY AND WASH BEFORE REUSE. IF SYMPTOMS PERSIST, GET MEDICAL ATTENTION. |
| Eyes: | FOR DUST OR SOLUTION IN EYES, FLUSH IMMEDIATELY FOR 15-20 MINUTES WITH LARGE AMOUNTS OF WATER. SEEK MEDICAL EVALUATION OF POTENTIAL CORNEAL DAMAGE. |
| Inhalation: | IMMEDIATELY REMOVE TO FRESH AIR. IF BREATHING IS DIFFICULT GIVE OXYGEN IF A QUALIFIED OPERATOR IS AVAILABLE. GET MEDICAL EVALUATION. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION, PREFERABLY MOUTH-TO-MOUTH. CALL A PHYSICIAN AND GIVE |

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| | AND THROAT; COUGHING; STOMACH PAIN; HEADACHE; NAUSEA; VOMITING; METALLIC TASTE; CHILLS; FEVER; MUSCLE AND JOINT PAIN; THIRST; BRONCHITIS OR PNEUMONIA; AND A BLUISH TINT TO THE SKIN. THESE SYMPTOMS GO AWAY IN 24 TO 48 HOURS AND LEAVE NO EFFECT. | | SUPPORTIVE TREATMENT FOR CHILLS AND FEVER. |
| CADMIUM: | ACUTE EXPOSURE TO CADMIUM RESULTS IN NAUSEA, VOMITING, PAIN IN THE BACK AND EXTREMITIES, DIZZINESS AND UNCONSCIOUSNESS. INGESTION OF CADMIUM MAY LEAD TO STOMACH PAIN. CHRONIC EXPOSURE LEADS TO ANEMIA, PULMONARY EMPHYSEMA, PULMONARY FIBROSIS, KIDNEY STONES, LIVER AND KIDNEY DAMAGE, BLEEDING FROM THE LUNGS, ULCERATIVE GASTROENTERITIS, DAMAGE TO BONE MARROW AND DEATH. | Ingestion: | DO NOT INDUCE VOMITING. IF CONSCIOUS, GIVE SOLUBLE CALCIUM OR MAGNESIUM IN ANY FORM; MILK, CALCIUM GLUCONATE OR CALCIUM LACTATE SOLUTIONS, IF AVAILABLE; OR MILK OF MAGNESIA; OTHERWISE GIVE LARGE QUANTITIES OF WATER. CALL A PHYSICIAN. DO NOT GIVE CARBONATES OR BICARBONATES. |

SECTION 7 – Precautions for Safe Handling & Use

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| In Case of Release or Spill: | MATERIAL CAN BE PICKED UP BY HAND OR SWEEPED UP. MOLTEN MATERIAL SHOULD BE ALLOWED TO COOL BELOW 100° F BEFORE HANDLING. |
| Waste Disposal Method: | DISPOSAL OF WASTE MAY BE SUBJECT TO FEDERAL, STATE AND LOCAL REGULATIONS. USERS SHOULD CHECK WITH THE PROPER AGENCIES PRIOR TO DISPOSAL. BECAUSE OF THE PRECIOUS METAL CONTENT OF MOST BRAZING PASTES, WASTE SHOULD BE REFINED. |
| Handling & Storage: | MAINTAIN AT NORMAL ROOM TEMPERATURE. KEEP COVERED AND STORE IN A DRY AREA. WORKERS SHOULD WEAR GLOVES AND SAFETY GOGGLES WHEN HANDLING. |
| Other Precautions: | REFER TO AMSI Z49.1 “SAFETY IN CUTTING AND WELDING” |

SECTION 8 – Control Measures

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| Respiratory Protection: | IN CONFINED SPACES OR AREAS OF INSUFFICIENT VENTILATION, USE A NIOSH APPROVED AIRLINE RESPIRATOR, HOSE MASK OR SELF-CONTAINED BREATHING APPARATUS. | Eye Protection: | SAFETY GOGGLES OR FULL FACE SHIELD ARE RECOMMENDED DURING USE. AVOID FLAMMABLE FABRICS. |
| Ventilation Requirements: | LOCAL EXHAUST SHOULD PRODUCE AN AIR FLOW OF 100 LINEAL FT./MIN. | Other Protections: | AN EYE BATH AND SAFETY SHOWER SHOULD BE LOCATED IN THE WORK AREA. WASH HANDS BEFORE EATING, DRINKING OR SMOKING. THESE ACTIVITIES SHOULD NOT BE PERMITTED IN THE WORKPLACE OR WHILE HANDLING PRODUCT. |
| Protective Gloves: | HEAT PROTECTIVE GLOVES | | |

SECTION 9 – Additional Information

This company cannot anticipate all conditions of handling and use of this product. Therefore, this company accepts no responsibility for results obtained by the application of this information, or the safety and suitability of our products either alone or in combination with other products. It is the responsibility of the user to provide a safe workplace, using the health and safety information contained herein as a guide. This company will accept no liability for damages or loss incurred from the improper handling and use of this product.

SECTION 1 - Identity

| | | | |
|------------------|---------------------------|--|--|
| Product Name: | SILVER SOLDER - 70 | Manufacturer: | The Contenti Company |
| Generic Name: | BRAZING ALLOY | Address: | 515 Narragansett Park Drive Pawtucket, RI 02861 |
| Chemical Family: | BRAZING COMPOUNDS | Manufacturer Phone #: | 401-305-3000 |
| Formula | PROPRIETARY | Spill, Leak, Fire, Exposure, Accident: | Chemtrec 800-424-9300 |

SECTION 2 - Ingredient Information

| Chemical Name | Wt. % | OSHA PEL | ACGIH | Other | CAS No. |
|---------------|-------|----------|-----------------------------|-------|-----------|
| SILVER | 70 | | 0.01 mg/m ³ | | 7440-22-4 |
| COPPER | | | 1.00 mg/m ³ dust | | 7440-50-8 |
| | | | 0.1 mg/m ³ fume | | |
| ZINC | | | 5.0 mg/m | | 7440-66-6 |

SECTION 3 – Physical Characteristics

| | |
|---------------------------------|---------|
| Boiling Point: | 1290° f |
| Vapor Pressure: (mm Hg) | N/A |
| Vapor Density: (air = 1) | N/A |
| Specific Gravity: | N/A |
| Melting Point: | N/A |
| Evaporation Rate: | N/A |
| Solubility in Water: | ZERO |
| Appearance & Odor | N/A |

SECTION 4 – Fire & Explosive Hazard Data

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| Flash Point: (method used) | N/A |
| Upper Explosion Limit: | N/A |
| Lower Explosion Limit: | N/A |
| Extinguishing Media: | N/A |
| Special Firefighting Procedures: | N/A |
| Unusual Fire & Explosion Hazards: | N/A |

SECTION 5 – Reactivity Data

| | | | |
|---|--------------------|----------------------------------|----------------|
| Stability: | STABLE | Hazardous Decomposition: | N/A |
| Incompatibility (materials to avoid) | ACIDS AND ALKALIES | Hazardous Polymerization: | WILL NOT OCCUR |

SECTION 6 – Health Hazard Data

| | | | | | |
|------------------------|---------|-------------------------|----|------------------------|----|
| CARCINOGENICITY | NPT: NO | IARC MONOGRAPHS: | NO | OSHA REGULATED: | NO |
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| EFFECTS OF OVEREXPOSURE | FIRST AID PROCEDURES |
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| SILVER: | OVEREXPOSURE TO SILVER DUSTS OR FUMES MAY CAUSE A PERMANENT GRAYISH PIGMENTATION OF THE SKIN AND CAN CAUSE IRRITATION OF THE SKIN AND MUCOUS MEMBRANES. PROLONGED OVEREXPOSURE CAN LEAD TO KIDNEY DAMAGE. | OVEREXPOSURE TO FUME: | IMMEDIATELY REMOVE TO FRESH AIR. IF BREATHING IS DIFFICULT, GIVE OXYGEN IF QUALIFIED OPERATOR IS AVAILABLE. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. CALL A PHYSICIAN AND GIVE SUPPORTIVE TREATMENT. |
| COPPER: | INDUSTRIAL EXPOSURE TO COPPER FUMES, DUSTS OR MISTS RESULTS IN METAL FUME FEVER WITH ATROPHIC CHANGES IN NASAL MUCOUS MEMBRANES. CHRONIC POISONING RESULTS IN WILSON'S DISEASE, CHARACTERIZED BY A HEPATIC CIRRHOSIS, BRAIN DAMAGE, DEMYELINATION, RENAL DISEASE AND COPPER DEPOSITION IN THE CORNEA. | | |
| ZINC: | EXCESSIVE INHALATION OF FRESHLY FORMED ZINC MAY PRODUCE CHARACTERISTIC SYMPTOMS KNOWN AS METAL FUME FEVER OR ZINC SHAKES. ONSET OF SYMPTOMS MAY BE DELAYED 4 TO 12 HOURS. SYMPTOMS INCLUDE IRRITATION OF THE NOSE, MOUTH AND THROAT. COUGH, STOMACH PAIN, HEADACHE, NAUSEA, VOMITING, METALLIC | | |

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| TASTE, CHILLS, FEVER, PAINS IN THE MUSCLES AND JOINTS. THIRST, BRONCHITIS OR PNEUMONIA AND A BLUISH TINT TO THE SKIN. THESE SYMPTOMS GO AWAY IN 24 TO 48 HOURS AND LEAVE NO EFFECT. | |
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SECTION 7 – Precautions for Safe Handling & Use

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| In Case of Release or Spill: | IN NORMAL CONDITIONS NOTHING SHOULD HAPPEN, HOWEVER IF SPILLED AND CAME INTO CONTACT WITH ACID THEN DILUTE WITH LOTS OF WATER. WEAR MASK AND PROTECTIVE GLOVES. |
| Waste Disposal Method: | DISOSAL OF WASTE PRODUCT MAY BE SUBJECT TO FEDERAL, STATE AND LOCAL REGULATIONS. USERS SHOULD REVIEW THEIR OWN OPERATIONS IN TERMS OF APPLICABLE FEDERAL, STATE AND LOCAL LAWS AND REGULATIONS, THEN CONSULT WITH APPROPRIATE REGULATORY AGENCIES BEFORE DISCHARGE OF DISPOSING OF THE WASTE MATERIAL. |
| Handling & Storage: | REFER TO ANSI Z49.1 "SAFETY IN CUTTING AND WELDING |
| Other Precautions: | N/A |

SECTION 8 – Control Measures

| | | | |
|----------------------------------|---|---------------------------|--|
| Respiratory Protection: | IN CONFINED SPACE, USE AN AIRLINE RESPIRATOR OR HOSE MASK NIOSH APPROVED OR SELF CONTAINED | Eye Protection: | SAFETY GOGGLES OR FULL FACE SHIELD. |
| Ventilation Requirements: | LOCAL: AIR FLOW TO PRODUCE VELOCITY OF 100 LINEAL FT/MIN IN BRAZING ZONE. MECHANICAL: REFER TO ANSI Z49.1 "SAFETY IN CUTTING AND WELDING" PUBLISHED BY: THE AWS PO BOX 351040 MIAMI, FL 33135. | Other Protections: | NORMAL CLOTHING FOR TORCH BRAZING (AVOID FLAMMABLE FABRICS); EYE BATH AND SAFETY SHOWER. WASH HANDS BEFORE EATING, DRINKING AND SMOKING. THE DRINKING WATER SUPPLY IS PROHIBITED UNDER FEDERAL LAW IN WORKING AREA. DO NOT PERMIT EATING, DRINKING, OR USING TOBACCO PRODUCTS WHILE HANDLING. |
| Protective Gloves: | HEAT PROTECTIVE RUBBER | | |

SECTION 9 – Additional Information

This company cannot anticipate all conditions of handling and use of this product. Therefore, this company accepts no responsibility for results obtained by the application of this information, or the safety and suitability of our products either alone or in combination with other products. It is the responsibility of the user to provide a safe workplace, using the health and safety information contained herein as a guide. This company will accept no liability for damages or loss incurred from the improper handling and use of this product.

SECTION 1 - Identity

| | | | |
|------------------|---------------------------|--|--|
| Product Name: | SILVER SOLDER - 75 | Manufacturer: | The Contenti Company |
| Generic Name: | BRAZING ALLOY | Address: | 515 Narragansett Park Drive Pawtucket, RI 02861 |
| Chemical Family: | BRAZING COMPOUNDS | Manufacturer Phone #: | 401-305-3000 |
| Formula | PROPRIETARY | Spill, Leak, Fire, Exposure, Accident: | Chemtrec 800-424-9300 |

SECTION 2 - Ingredient Information

| Chemical Name | Wt. % | OSHA PEL | ACGIH | Other | CAS No. |
|---------------|-------|----------|-----------------------------|-------|-----------|
| SILVER | 75 | | 0.01 mg/m ³ | | 7440-22-4 |
| COPPER | | | 1.00 mg/m ³ dust | | 7440-50-8 |
| ZINC | | | 0.1 mg/m ³ fume | | |
| | | | 5.0 mg/m | | 7440-66-6 |

SECTION 3 – Physical Characteristics

| | |
|---------------------------------|---------|
| Boiling Point: | 1290° F |
| Vapor Pressure: (mm Hg) | N/A |
| Vapor Density: (air = 1) | N/A |
| Specific Gravity: | N/A |
| Melting Point: | N/A |
| Evaporation Rate: | N/A |
| Solubility in Water: | ZERO |
| Appearance & Odor | N/A |

SECTION 4 – Fire & Explosive Hazard Data

| | |
|--|-----|
| Flash Point: (method used) | N/A |
| Upper Explosion Limit: | N/A |
| Lower Explosion Limit: | N/A |
| Extinguishing Media: | N/A |
| Special Firefighting Procedures: | N/A |
| Unusual Fire & Explosion Hazards: | N/A |

SECTION 5 – Reactivity Data

| | | | |
|---|--------------------|----------------------------------|----------------|
| Stability: | STABLE | Hazardous Decomposition: | N/A |
| Incompatibility (materials to avoid) | ACIDS AND ALKALIES | Hazardous Polymerization: | WILL NOT OCCUR |

SECTION 6 – Health Hazard Data

| | | | | | |
|------------------------|---------|-------------------------|----|------------------------|----|
| CARCINOGENICITY | NPT: NO | IARC MONOGRAPHS: | NO | OSHA REGULATED: | NO |
|------------------------|---------|-------------------------|----|------------------------|----|

EFFECTS OF OVEREXPOSURE

| | |
|----------------|---|
| SILVER: | OVEREXPOSURE TO SILVER DUSTS OR FUMES MAY CAUSE A PERMANENT GRAYISH PIGMENTATION OF THE SKIN AND CAN CAUSE IRRITATION OF THE SKIN AND MUCOUS MEMBRANES. PROLONGED OVEREXPOSURE CAN LEAD TO KIDNEY DAMAGE. |
| COPPER: | INDUSTRIAL EXPOSURE TO COPPER FUMES, DUSTS OR MISTS RESULTS IN METAL FUME FEVER WITH ATROPHIC CHANGES IN NASAL MUCOUS MEMBRANES. CHRONIC POISONING RESULTS IN WILSON'S DISEASE, CHARACTERIZED BY A HEPATIC CIRRHOSIS, BRAIN DAMAGE, DEMYELINATION, RENAL DISEASE AND COPPER DEPOSITION IN THE CORNEA. |
| ZINC: | EXCESSIVE INHALATION OF FRESHLY FORMED ZINC MAY PRODUCE CHARACTERISTIC SYMPTOMS KNOWN AS METAL FUME FEVER OR ZINC SHAKES. ONSET OF SYMPTOMS MAY BE DELAYED 4 TO 12 HOURS. SYMPTOMS INCLUDE IRRITATION OF THE NOSE, MOUTH AND THROAT. COUGH, STOMACH PAIN, HEADACHE, NAUSEA, VOMITING, METALLIC |

FIRST AID PROCEDURES

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| OVEREXPOSURE TO FUME: | IMMEDIATELY REMOVE TO FRESH AIR. IF BREATHING IS DIFFICULT, GIVE OXYGEN IF QUALIFIED OPERATOR IS AVAILABLE. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. CALL A PHYSICIAN AND GIVE SUPPORTIVE TREATMENT. |
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| TASTE, CHILLS, FEVER, PAINS IN THE MUSCLES AND JOINTS. THIRST, BRONCHITIS OR PNEUMONIA AND A BLUISH TINT TO THE SKIN. THESE SYMPTOMS GO AWAY IN 24 TO 48 HOURS AND LEAVE NO EFFECT. | |
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SECTION 7 – Precautions for Safe Handling & Use

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|-------------------------------------|---|
| In Case of Release or Spill: | IN NORMAL CONDITIONS NOTHING SHOULD HAPPEN, HOWEVER IF SPILLED AND CAME INTO CONTACT WITH ACID THEN DILUTE WITH LOTS OF WATER. WEAR MASK AND PROTECTIVE GLOVES. |
| Waste Disposal Method: | DISPOSAL OF WASTE PRODUCT MAY BE SUBJECT TO FEDERAL, STATE AND LOCAL REGULATIONS. USERS SHOULD REVIEW THEIR OWN OPERATIONS IN TERMS OF APPLICABLE FEDERAL, STATE AND LOCAL LAWS AND REGULATIONS, THEN CONSULT WITH APPROPRIATE REGULATORY AGENCIES BEFORE DISCHARGE OF DISPOSING OF THE WASTE MATERIAL. |
| Handling & Storage: | REFER TO ANSI Z49.1 "SAFETY IN CUTTING AND WELDING |
| Other Precautions: | N/A |

SECTION 8 – Control Measures

| | | | |
|----------------------------------|---|---------------------------|--|
| Respiratory Protection: | IN CONFINED SPACE, USE AN AIRLINE RESPIRATOR OR HOSE MASK NIOSH APPROVED OR SELF CONTAINED | Eye Protection: | SAFETY GOGGLES OR FULL FACE SHIELD. |
| Ventilation Requirements: | LOCAL: AIR FLOW TO PRODUCE VELOCITY OF 100 LINEAL FT/MIN IN BRAZING ZONE. MECHANICAL: REFER TO ANSI Z49.1 "SAFETY IN CUTTING AND WELDING" PUBLISHED BY: THE AWS PO BOX 351040 MIAMI, FL 33135. | Other Protections: | NORMAL CLOTHING FOR TORCH BRAZING (AVOID FLAMMABLE FABRICS); EYE BATH AND SAFETY SHOWER. WASH HANDS BEFORE EATING, DRINKING AND SMOKING. THE DRINKING WATER SUPPLY IS PROHIBITED UNDER FEDERAL LAW IN WORKING AREA. DO NOT PERMIT EATING, DRINKING, OR USING TOBACCO PRODUCTS WHILE HANDLING. |
| Protective Gloves: | HEAT PROTECTIVE RUBBER | | |

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