SAFETY DATA SHEET

Revision Date 21-Nov-2018

1. IDENTIFICATION

Product identifier
Product Name LIQUID METAL FILLER 3.5 FL.OZ

Other means of identification
Product Code 25909

Recommended use of the chemical and restrictions on use
Recommended Use Adhesive Filler
Uses advised against No information available

Details of the supplier of the safety data sheet
Manufacturer Address ITW Permatex
6875 Parkland Blvd.
Solon, Ohio 44139 USA
Telephone: 1-87-Permatex
(866) 732-9502

May Also Be Distributed by:
ITW Permatex Canada
101-2360 Bristol Circle
Oakville, ON Canada L6H 6M5
Telephone: (800) 924-6994

24-hour emergency phone number
Chem-Tel: 800-255-3924
International Emergency:
00+1+ 813-248-0585
Contract Number: MIS0003453

E-mail address: mail@permatex.com

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status
This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Oral Category 4
Acute toxicity - Inhalation (Dusts/Mists) Category 4
Serious eye damage/eye irritation Category 2
Flammable liquids Category 2

Label elements

Emergency Overview
Signal word Danger
Harmful if swallowed
Harmful if inhaled
Causes serious eye irritation
Highly flammable liquid and vapor
Precautionary Statements - Prevention
Avoid breathing dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area
Wear eye/face protection
Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Keep away from heat/sparks/open flames/hot surfaces. - No smoking
Keep container tightly closed
Take precautionary measures against static discharge

Precautionary Statements - Response
IF exposed or concerned: Get medical advice/attention
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
If eye irritation persists: Get medical advice/attention
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
Call a POISON CENTER or doctor/physician if you feel unwell
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
Rinse mouth
In case of fire: Use CO2, dry chemical, or foam to extinguish.

Precautionary Statements - Storage
Store in a well-ventilated place. Keep cool

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)
Not applicable

Other Information
- This product contains titanium dioxide in a non-respirable form. Inhalation of titanium dioxide is unlikely to occur from exposure to this product
- This product contains carbon black in a non-respirable form. Inhalation of carbon black is unlikely to occur from exposure to this product
- This product contains crystalline silica (quartz) in a non-respirable form. Inhalation of crystalline silica is unlikely to occur from exposure to this product

Unknown acute toxicity 32.3858 % of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Substance(s)</th>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>Weight-%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>BARIUM SULFATE</td>
<td>7727-43-7</td>
<td>30 - 60</td>
</tr>
<tr>
<td></td>
<td>ACETONE</td>
<td>67-64-1</td>
<td>10 - 30</td>
</tr>
<tr>
<td></td>
<td>ISOBUTYL ACETATE</td>
<td>110-19-0</td>
<td>3 - 7</td>
</tr>
<tr>
<td></td>
<td>TITANIUM DIOXIDE</td>
<td>13463-67-7</td>
<td>0.1 - 1</td>
</tr>
<tr>
<td></td>
<td>SILICA, QUARTZ</td>
<td>14808-60-7</td>
<td>0.1 - 1</td>
</tr>
</tbody>
</table>
4. FIRST AID MEASURES

Description of first aid measures

General advice
Get medical advice/attention if you feel unwell.

Eye contact
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Skin contact
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash skin with soap and water. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

Inhalation
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If symptoms persist, call a physician.

Ingestion
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth.

Self-protection of the first aider
Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

Most important symptoms and effects, both acute and delayed

Symptoms
See section 2 for more information.

Indication of any immediate medical attention and special treatment needed

Note to physicians
Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media
Carbon dioxide (CO2), Dry chemical, Foam

Unsuitable extinguishing media
Do not use a solid water stream as it may scatter and spread fire

Specific hazards arising from the chemical
Highly flammable. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back.

Explosion data
Sensitivity to Mechanical Impact
None.
Sensitivity to Static Discharge
None.

Protective equipment and precautions for firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions
ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Avoid contact with skin, eyes or clothing. Ensure adequate ventilation, especially in confined areas. Wash thoroughly after handling. Use personal protective equipment as required.
**Other Information**

Water spray may reduce vapor; but may not prevent ignition in closed spaces.

**Environmental precautions**

See Section 12 for additional Ecological Information.

**Methods and material for containment and cleaning up**

Methods for containment

Prevent further leakage or spillage if safe to do so.

Methods for cleaning up

Eliminate all ignition sources if safe to do so. Ensure adequate ventilation. Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal.

Prevention of secondary hazards

Clean contaminated objects and areas thoroughly observing environmental regulations.

### 7. HANDLING AND STORAGE

**Precautions for safe handling**

Advice on safe handling

Handle in accordance with good industrial hygiene and safety practice. Avoid breathing vapors or mists. Avoid contact with skin, eyes or clothing. Wash contaminated clothing before reuse. Use personal protective equipment as required. Remove all sources of ignition. Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

**Conditions for safe storage, including any incompatibilities**

Storage Conditions

Store in a well-ventilated place. Keep cool.

Incompatible materials

Strong oxidizing agents, Acids, Alkalis, Reducing agents

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Control parameters**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>NIOSH IDLH</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BARIUM SULFATE</strong> 7727-43-7</td>
<td>TWA: 5 mg/m³ inhalable fraction, particulate matter containing no asbestos and &lt;1% crystalline silica</td>
<td>TWA: 15 mg/m³ total dust</td>
<td>TWA: 10 mg/m³ total dust</td>
</tr>
<tr>
<td><strong>ACETONE</strong> 67-64-1</td>
<td>STEL: 500 ppm TWA: 250 ppm</td>
<td>TWA: 1000 ppm TWA: 2400 mg/m³ (vacated) TWA: 750 ppm (vacated) TWA: 1800 mg/m³ (vacated) STEL: 2400 mg/m³</td>
<td>IDLH: 2500 ppm TWA: 250 ppm TWA: 590 mg/m³</td>
</tr>
<tr>
<td><strong>ISOBUTYL ACETATE</strong> 110-19-0</td>
<td>STEL: 150 ppm TWA: 50 ppm</td>
<td>TWA: 150 ppm TWA: 700 mg/m³ (vacated) TWA: 150 ppm TWA: 700 mg/m³</td>
<td>IDLH: 1300 ppm TWA: 150 ppm TWA: 700 mg/m³</td>
</tr>
<tr>
<td><strong>TITANIUM DIOXIDE</strong> 13463-67-7</td>
<td>TWA: 10 mg/m³</td>
<td>TWA: 15 mg/m³ total dust (vacated) TWA: 10 mg/m³ total dust</td>
<td>IDLH: 5000 mg/m³</td>
</tr>
<tr>
<td><strong>SILICA, QUARTZ</strong> 14808-60-7</td>
<td>TWA: 0.025 mg/m³ respirable fraction</td>
<td>(vacated) TWA: 0.1 mg/m³ respirable dust : (30)/(%SiO₂ + 2) mg/m³ TWA total dust : (250)/(%SiO₂ + 5) mppcf TWA respirable fraction : (10)/(%SiO₂ + 2) mg/m³ TWA respirable fraction</td>
<td>IDLH: 50 mg/m³ respirable dust TWA: 0.05 mg/m³ respirable dust</td>
</tr>
<tr>
<td><strong>CARBON BLACK</strong></td>
<td>TWA: 3 mg/m³ inhalable fraction</td>
<td>TWA: 3.5 mg/m³</td>
<td>IDLH: 1750 mg/m³</td>
</tr>
</tbody>
</table>
### 9. PHYSICAL AND CHEMICAL PROPERTIES

#### 9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Remarks / Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
<td></td>
</tr>
<tr>
<td>Appearance</td>
<td>Black</td>
<td></td>
</tr>
<tr>
<td>Odor</td>
<td>Solvent</td>
<td></td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td><strong>pH</strong></td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Melting point / freezing point</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Boiling point / boiling range</td>
<td>54-118 °C / 130-245 °F</td>
<td></td>
</tr>
<tr>
<td>Flash point</td>
<td>-18 °C / 0 °F</td>
<td>Tag Closed Cup</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>&lt;1</td>
<td>Butyl acetate = 1</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Flammability Limit in Air</td>
<td><strong>Upper flammability limit:</strong> 12.8%</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Lower flammability limit:</strong> 2.4%</td>
<td></td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>181 mm Hg @ 68°F</td>
<td></td>
</tr>
<tr>
<td>Vapor density</td>
<td>&gt;1</td>
<td>Air = 1</td>
</tr>
<tr>
<td>Relative density</td>
<td>1.8</td>
<td></td>
</tr>
<tr>
<td>Water solubility</td>
<td>Partially soluble</td>
<td></td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Partition coefficient</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Kinematic viscosity</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Dynamic viscosity</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td><strong>Other Information</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Softening point</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Molecular weight</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>VOC Content (%)</td>
<td>7.5%</td>
<td></td>
</tr>
<tr>
<td>Density</td>
<td>No information available</td>
<td></td>
</tr>
</tbody>
</table>
10. STABILITY AND REACTIVITY

Reactivity
No information available

Chemical stability
Stable under normal conditions

Possibility of Hazardous Reactions
None under normal processing.

Conditions to avoid
Heat, flames and sparks.

Incompatible materials
Strong oxidizing agents, Acids, Alkalis, Reducing agents

Hazardous Decomposition Products
Carbon oxides
Hydrogen chloride

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation
May be harmful by inhalation.

Eye contact
Contact with eyes may cause irritation. May cause redness and tearing of the eyes.

Skin contact
May cause skin irritation and/or dermatitis.

Ingestion
Harmful if swallowed.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
<th>Inhalation LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACETONE 67-64-1</td>
<td>5800 mg/kg (Rat)</td>
<td>-</td>
<td>50100 mg/m³ (Rat) 8 h</td>
</tr>
<tr>
<td>ISOBUTYL ACETATE 110-19-0</td>
<td>15400 mg/kg (Rat)</td>
<td>&gt; 17400 mg/kg (Rabbit)</td>
<td>-</td>
</tr>
<tr>
<td>TITANIUM DIOXIDE 13463-67-7</td>
<td>&gt; 10000 mg/kg (Rat)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>SILICA, QUARTZ 14808-60-7</td>
<td>500 mg/kg (Rat)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>CARBON BLACK 1333-86-4</td>
<td>&gt; 15400 mg/kg (Rat)</td>
<td>&gt; 3 g/kg (Rabbit)</td>
<td>-</td>
</tr>
</tbody>
</table>

Information on toxicological effects

Symptoms
No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization
No information available.

Germ cell mutagenicity
No information available.

Carcinogenicity
The table below indicates whether each agency has listed any ingredient as a carcinogen.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH</th>
<th>IARC</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITANIUM DIOXIDE 13463-67-7</td>
<td>-</td>
<td>Group 2B</td>
<td>-</td>
<td>X</td>
</tr>
<tr>
<td>SILICA, QUARTZ 14808-60-7</td>
<td>A2</td>
<td>Group 1</td>
<td>Known</td>
<td>X</td>
</tr>
<tr>
<td>CARBON BLACK 1333-86-4</td>
<td>A3</td>
<td>Group 2B</td>
<td>-</td>
<td>X</td>
</tr>
</tbody>
</table>

ACGIH (American Conference of Governmental Industrial Hygienists)
A2 - Suspected Human Carcinogen  
A3 - Animal Carcinogen  
IARC (International Agency for Research on Cancer)  
Group 1 - Carcinogenic to Humans  
Group 2B - Possibly Carcinogenic to Humans  
Not classifiable as a human carcinogen  
NTP (National Toxicology Program)  
Known - Known Carcinogen  
OSHA (Occupational Safety and Health Administration of the US Department of Labor)  
X - Present  

Target Organ Effects  
Central nervous system, Eyes, Respiratory system, Skin.

The following values are calculated based on chapter 3.1 of the GHS document.

- ATEmix (oral)  
  708

- ATEmix (dermal)  
  168478

- ATEmix (inhalation-dust/mist)  
  2.2

12. ECOLOGICAL INFORMATION

Ecotoxicity
86.4458 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

Persistence and degradability
No information available.

Bioaccumulation
No information available.

Mobility
No information available.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Partition coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACETONE 67-64-1</td>
<td>-0.24</td>
</tr>
<tr>
<td>ISOBUTYL ACETATE 110-19-0</td>
<td>1.72</td>
</tr>
</tbody>
</table>

Other adverse effects
No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes
This material, as supplied, is a hazardous waste according to federal regulations (40 CFR 261).

Contaminated packaging
Do not reuse container.

US EPA Waste Number
D001

This product contains one or more substances that are listed with the State of California as a hazardous waste.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>California Hazardous Waste Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACETONE 67-64-1</td>
<td>Ignitable</td>
</tr>
</tbody>
</table>

14. TRANSPORT INFORMATION
DOT

UN/ID No: 1133
Proper shipping name: Adhesives, Limited Quantity (LQ)
Hazard Class: 3
Packing Group: II
Emergency Response Guide Number: 128

IATA

UN/ID No: ID 8000
Proper shipping name: Consumer commodity
Hazard Class: 9
ERG Code: 9L

IMDG

UN/ID No: 1133
Proper shipping name: Adhesives, Limited Quantity (LQ)
Hazard Class: 3
Packing Group: II
EmS-No: F-E, S-D

15. REGULATORY INFORMATION

International Inventories

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

US Federal Regulations

SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>SARA 313 - Threshold Values %</th>
</tr>
</thead>
<tbody>
<tr>
<td>BARIUM SULFATE - 7727-43-7</td>
<td>1.0</td>
</tr>
</tbody>
</table>

SARA 311/312 Hazard Categories

Acute health hazard: Yes
Chronic Health Hazard: No
Fire hazard: Yes
Sudden release of pressure hazard: No
Reactive Hazard: No

CWA (Clean Water Act)
This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CWA - Reportable</th>
<th>CWA - Toxic Pollutants</th>
<th>CWA - Priority Pollutants</th>
<th>CWA - Hazardous</th>
</tr>
</thead>
</table>
### CERCLA
This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Hazardous Substances RQs</th>
<th>CERCLA/SARA RQ</th>
<th>Reportable Quantity (RQ)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACETONE 67-64-1</td>
<td>5000 lb</td>
<td></td>
<td>RQ 5000 lb final RQ</td>
</tr>
<tr>
<td>ISOBUTYL ACETATE 110-19-0</td>
<td>5000 lb</td>
<td></td>
<td>RQ 2270 kg final RQ</td>
</tr>
</tbody>
</table>

### US State Regulations

#### California Proposition 65
This product contains the following Proposition 65 chemicals:

- **TITANIUM DIOXIDE - 13463-67-7** *(Carcinogen (airborne, unbound particles of respirable size))*
- **SILICA, QUARTZ - 14808-60-7** *(Carcinogen (airborne particles of respirable size only))*
- **CARBON BLACK - 1333-86-4** *(Carcinogen (airborne, unbound particles of respirable size))*

*The asterisked chemical(s) listed are not subject to Proposition 65 because they are not airborne in the finished product*

#### U.S. State Right-to-Know Regulations

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>New Jersey</th>
<th>Massachusetts</th>
<th>Pennsylvania</th>
</tr>
</thead>
<tbody>
<tr>
<td>BARIUM SULFATE 7727-43-7</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>KAOLIN 1332-58-7</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>ACETONE 67-64-1</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>ISOBUTYL ACETATE 110-19-0</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>LIMESTONE 1317-65-3</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>TITANIUM DIOXIDE 13463-67-7</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>SILICA, QUARTZ 14808-60-7</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>CARBON BLACK 1333-86-4</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

#### U.S. EPA Label Information

- **EPA Pesticide Registration Number**: Not applicable

- **WHMIS Hazard Class**: B2 - Flammable liquid, D2B - Toxic materials

### NFPA HMIS

<table>
<thead>
<tr>
<th>NFPA</th>
<th>Health hazards</th>
<th>Flammability</th>
<th>Instability</th>
<th>Physical hazards</th>
<th>Personal protection</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>3</td>
<td>0</td>
<td>-</td>
<td>0</td>
<td>B</td>
</tr>
</tbody>
</table>

NFPA (National Fire Protection Association)
HMIS (Hazardous Material Information System)

**Revision Date**: 21-Nov-2018

**Disclaimer**
The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.
End of Safety Data Sheet