

```
<?xml version="1.0" encoding="UTF-8"?>
<enderio:recipes xmlns:enderio="http://enderio.com/recipes" xmlns:xsi="http://www.w3.
org/2001/XMLSchema-instance" xsi:schemaLocation="http://enderio.com/recipes recipes.
xsd ">
```

```
<!--
```

These are the built-in recipes. You cannot change this file, it is a reference for you only and will be generated every time the game starts. To make changes to the recipes, copy the recipes you want to change to a file in the 'user' folder. To disable a recipe, add an attribute "disabled" and set it to true, e.g.: <recipe name="Alloy: Manyullyn" disabled="true" /> You can also disable all built-in recipes with the setting "loadCoreRecipes" in the Ender IO config file, so that only your files in the 'user' folder will be loaded. Please be advised that a number of recipes are absolutely needed, so you will have to copy those over into a 'user' file for the game to load. Item specifications can reference an alias, an ore dictionary name, a block or an item. You can force the type by prefixing the value with "oredict:", "block:" or "item:". Recipes that have items that cannot be found in-game are either skipped or an error, depending on their "required" attribute.

More information on the syntax can be found in the recipes.xsd file. An XML editor will display that as tooltips when editing this file.

```
-->
```

```
<recipe name="Alloy: Manyullyn" required="false">
  <alloying energy="10000" exp="0.25">
    <input name="ingotCobalt"/>
    <input name="ingotArdite"/>
    <output name="ingotManyullyn"/>
  </alloying>
</recipe>
```

```
<recipe name="Alloy: Steel" required="false">
  <alloying energy="10000" exp="0">
    <input name="ingotIron"/>
    <input name="dustCoal" amount="4"/>
    <output name="ingotSteel"/>
  </alloying>
</recipe>
```

```
<recipe name="Alloy: Electrum Ingot (Thermal Expansion)" required="false">
  <alloying energy="2000" exp="0.25">
    <input name="ingotGold"/>
    <input name="ingotSilver"/>
    <output name="ingotElectrum" amount="2"/>
  </alloying>
</recipe>
```

```
<recipe name="Alloy: Invar Ingot (Thermal Expansion)" required="false">
  <alloying energy="3000" exp="0.25">
    <input name="ingotNickel"/>
    <input name="ingotIron" amount="2"/>
    <output name="ingotInvar" amount="3"/>
  </alloying>
</recipe>
```

```
<recipe name="Alloy: Bronze (Thermal Expansion)" required="false">
  <alloying energy="4000" exp="0">
    <input name="ingotCopper" amount="3"/>
    <input name="ingotTin"/>
    <output name="ingotBronze" amount="4"/>
  </alloying>
</recipe>
```

```
<recipe name="Alloy: Constantan (Thermal Expansion)" required="false">
  <alloying energy="4000" exp="0">
    <input name="ingotCopper"/>
```

```

        <input name="ingotNickel"/>
        <output name="ingotConstantan" amount="2"/>
    </alloying>
</recipe>

<recipe name="Alloy: Signalum (Thermal Expansion)" required="false">
    <alloying energy="32000" exp="0">
        <input name="ingotCopper" amount="3"/>
        <input name="ingotSilver"/>
        <input name="dustRedstone" amount="10"/>
        <output name="ingotSignalum" amount="4"/>
    </alloying>
</recipe>

<recipe name="Alloy: Lumium from dust (Thermal Expansion)" required="false">
    <alloying energy="32000" exp="0">
        <input name="ingotTin" amount="3"/>
        <input name="ingotSilver"/>
        <input name="dustGlowstone" amount="4"/>
        <output name="ingotLumium" amount="4"/>
    </alloying>
</recipe>

<recipe name="Alloy: Lumium (Thermal Expansion)" required="false">
    <alloying energy="32000" exp="0">
        <input name="ingotTin" amount="3"/>
        <input name="ingotSilver"/>
        <input name="oreDict:glowstone"/>
        <output name="ingotLumium" amount="4"/>
    </alloying>
</recipe>

<recipe name="Alloy: Enderium Base (Thermal Expansion)" required="false">
    <alloying energy="4000" exp="0">
        <input name="ingotLead" amount="3"/>
        <input name="ingotPlatinum"/>
        <input name="oreDict:enderpearl" amount="4"/>
        <output name="ingotEnderiumBase" amount="4"/>
    </alloying>
</recipe>

<recipe name="Alloy: Enderium (Thermal Expansion)" required="false">
    <alloying energy="25000" exp="0">
        <input name="ingotEnderiumBase" amount="2"/>
        <input name="oreDict:sand"/>
        <output name="ingotEnderium" amount="2"/>
    </alloying>
</recipe>

<recipe name="Alloy: Steel (Oredict)" required="false">
    <alloying energy="4000" exp="0">
        <input name="ingotIron"/>
        <input name="fuelCoke"/>
        <output name="ingotSteel"/>
    </alloying>
</recipe>

<recipe name="Alloy: FerroBoron (Nuclearcraft)" required="false">
    <alloying energy="6000" exp="0">
        <input name="ingotSteel"/>
        <input name="ingotBoron"/>
        <output name="ingotFerroboron" amount="2"/>
    </alloying>
</recipe>

<recipe name="Alloy: Tough Alloy (Nuclearcraft)" required="false">
    <alloying energy="9000" exp="0">
        <input name="ingotFerroboron"/>

```

```

        <input name="ingotLithium"/>
        <output name="ingotTough" amount="2"/>
    </alloying>
</recipe>

<recipe name="Alloy: Hard Carbon (Nuclearcraft)" required="false">
    <alloying energy="8000" exp="0">
        <input name="ingotGraphite" amount="2"/>
        <input name="gemDiamond"/>
        <output name="ingotHardCarbon" amount="2"/>
    </alloying>
</recipe>

<recipe name="Alloy: Magnesium Diboride Alloy (Nuclearcraft)" required="false">
    <alloying energy="4000" exp="0">
        <input name="ingotMagnesium"/>
        <input name="ingotBoron" amount="2"/>
        <output name="ingotMagnesiumDiboride" amount="3"/>
    </alloying>
</recipe>

<recipe name="Alloy: Lithium Manganese Alloy (Nuclearcraft)" required="false">
    <alloying energy="6000" exp="0">
        <input name="ingotManganeseDioxide"/>
        <input name="ingotLithium"/>
        <output name="ingotLithiumManganeseDioxide" amount="2"/>
    </alloying>
</recipe>

<recipe name="Alloy: EXTREME Alloy (Nuclearcraft)" required="false">
    <alloying energy="16000" exp="0">
        <input name="ingotTough"/>
        <input name="ingotHardCarbon"/>
        <output name="ingotExtreme"/>
    </alloying>
</recipe>

<recipe name="Alloy: Thermoconducting Alloy (Nuclearcraft)" required="false">
    <alloying energy="9000" exp="0">
        <input name="ingotExtreme"/>
        <input name="gemBoronArsenide"/>
        <output name="ingotThermoconducting" amount="2"/>
    </alloying>
</recipe>

<recipe name="Alloy: Enderium Blend" required="false">
    <alloying energy="2400">
        <input name="dustEnderium"/>
        <input name="ore:sand"/>
        <output name="ingotEnderium"/>
    </alloying>
</recipe>

<recipe name="Alloy: Signalum Blend" required="false">
    <alloying energy="2400">
        <input name="dustSignalum"/>
        <input name="ore:sand"/>
        <output name="ingotSignalum"/>
    </alloying>
</recipe>

<recipe name="Alloy: Lumium Blend" required="false">
    <alloying energy="2400">
        <input name="dustLumium"/>
        <input name="ore:sand"/>
        <output name="ingotLumium"/>
    </alloying>
</recipe>

```

```
<recipe name="Alloy: Invar Blend" required="false">
  <alloying energy="2400">
    <input name="dustInvar"/>
    <input name="ore:sand"/>
    <output name="ingotInvar"/>
  </alloying>
</recipe>

</enderio:recipes>
```