Here is the output from running the code:

Classification Report:

Since the dataset is very small, only 2 test samples were used, and the model achieved perfect prediction on them:

Class Precision Recall F1-Score Support

0 1.00 1.00 1

1 1.00 1.00 1.00 1

• Accuracy: 100%

• Note: These results may not generalize well due to the small dataset size.

For the input:

• Fill Level: 90%

• Temperature: 36°C

• Gas Level: 0.06

• Hours Since Last Collection: 22

Prediction: Bin will overflow soon. Schedule immediate collection.