

# COSHH & LOcHER Trader Board Game

## Description and Rules

**What do COSHH and LOcHER stand for?** Control of Substances Hazardous to Health regulations and Learning Occupational Health by Experiencing Risks [LOcHER \(safetygroupsuk.org.uk\)](http://LOcHER(safetygroupsuk.org.uk))

The business sectors and exposure control problems, indicated on the game board, are commonly encountered issues when the COSHH regulations are enforced by the Health and Safety Executive (HSE).

The **COSHH-LOcHER Trader** game is environmentally friendly. Its playing board and description are made available electronically. If needed, you can print these to play the game.

**Object of the game** is to become a COSHH-LOcHER Trader millionaire by owning more companies/wealth than your competitors. The market value of each company is indicated on the playing board. During the game you start acquiring wealth according to the rules set out in this description and rules. **You make lots of money and at the same time uphold a good standard of COSHH compliance in your companies. You get an introduction to health hazards, health risks caused by the hazards and examples of exposure control measures used. If you fail to maintain COSHH compliance, you will endure sanctions according to the rules of the game.**

**Winner of the game** is the businessperson (player) whose total market value of their business portfolio is greater than that of the competing businesspersons (Players), at the end of the game.

**Players:** Maximum 4, including a Facilities Manager (FM). Alternatively, 4 players, plus one FM. Players involved will select the FM, who will act as the game manager, scorer and arbitrator. FM's decisions are final.

**Starting a game:** Each player in turn throws the dice. The player with the highest total dice score starts the play. Then the play will move clockwise to the next player. When the game starts at the "entrepreneurs adventures" block, the starting player will throw the dice and make the first move according to the score. It will be followed by other three players.

**Playing time:** When a player reaches the COSHH-LOcHER Trader "adventures completed" block or when a maximum of 20 dice rolls per player have been reached (including any missed roll due to being COSHHed). The COSHH-LOcHER Trader adventures stop when one of the said rules is completed. In practice, a round of adventure takes less than 30 minutes to complete.

**Buying companies:** A player buys a company when arriving at a company premises that is not already owned. The landing is adequate, there is no need for cash exchange (to keep the game simple to play).

### **A player cannot buy a company:**

(i) When arriving at a company premises already owned by a competitor. It's only a visit. (ii) When forced by the "back to" command. It's only a visit. It happens when you land on a block where some COSHH related noncompliance (as described on the board) has taken place. This rule applies to already owned or an unsold company.

**"You are COSHHed":** It means that due to one or more serious COSHH regulations related noncompliance issues, you are sent to attend an extensive retraining on COSHH risk management. In addition, **you will miss a dice roll** because you are busy learning about COSHH. Your noncompliance means that your workers are likely to suffer serious ill-health immediately or over a period of time (months or years). **An immediate serious health issue** can be things like (i) hazardous substances causing irritation to eyes, skin and/or respiratory system; (ii) serious burns to skin, eye and/or lungs; (iii) metal fume fever and (iv) fatalities due poisoning.

Illnesses that take time to develop (**over a period of time**) can include, dermatitis, lung cancer, other lung diseases such as silicosis, asthma and other breathing problems like chronic obstruction of lungs disease known as disease COPD.

**What is needed to Play the game (printed board):** (i) the COSHH-LOcHER Trader board, (ii) rules for the game, (iii) the scoring sheet (page 2), (iv) a pen or pencil, (v) a six-faced dice, (vi) a suitable tube for shaking the dice before rolling.

Alternatively, an electronic random dice may be used with the help of a mobile phone (e.g. <https://www.random.org/dice/?num=1>). In this case, each player will show the score of each dice roll to others including the FM.

### **What is needed to play the game (on computer)**

(i) Computer versions of (i) the COSHH-LOcHER Trader board, (ii) rules for the game, (iii) the scoring sheet, (iv) electronic dice (see above)

**The gameboard in context:** **Dust:** fine particles created during activities such as flour handling and dusting; sawing, sanding and cutting wood, stone, bricks and metals; manufacturing bricks; handling, crushing and grinding stone and waste materials, also sweeping dust. **Fume:** vaporised solid in air that has condensed like welding, soldering and vehicle engine fume. **Vapour:** the gaseous phase of a substance which is normally a liquid at room temperature. Solvent vapours are encountered in most workplaces shown on the board. **Mist:** fine liquid particles created during activities like spraying paints, oils and adhesives; using metal working fluids. **Droplets:** small drops of liquid created by a hazardous substance during a work activity like when whirling, shaking, spraying and painting; degreasing and cleaning metal components.

Any **manufactured substances and products** (for supply) which are hazardous to health should be properly labelled with correct **hazard symbols** (blocks 17, 25, 33 and 35). They are designed to help employers and workers (and public) to minimise the likelihood of injury and ill-health. Product labels and safety data sheets should include health hazards symbols, associated hazards and what precautions to be taken during transport, use and waste handling.

**Frequently encountered health risks when workers are exposed to hazardous substances:** **Dusts and fume** - work-related asthma, lung cancer, other respiratory system illnesses and dermatitis. **Solvents, mists and droplets** - work-related asthma, lung cancer, other respiratory system illnesses, nervous system damage and dermatitis. Others include kidney and liver diseases. Each year, nearly 12000 workers die early due to work-related lung cancer.

**Exposure control issues: Respirator/eye wear** (blocks 5 & 6): when wearing a respirator, the face seal of a facemask can be severely weakened by an eye protector (block 6). One way of avoiding is to wear a facemask that covers eyes, nose and mouth (block 5). **Vapour control** (blocks 7 & 8): There can be a misconception that vapours always sink to the floor. That led to the design in block 8. A rim extractor (block 7) is often effective as the extraction is close to the point where vapour is generated. **Respirator face seal and facial hair** (blocks 12 and 13): when wearing a tightfitting face seal respirator, the face seal region should be clean shaven (block 12), otherwise respirator wearers can become exposed to hazardous substance through an ineffective seal. **Extractor hood** (blocks 14 & 15): when using an extractor, work should always be within the extraction zone of the hood to effectively capture dust, fume, droplets and vapours (block 14). **Spray booth** (blocks 19 & 20): sprayers should not stand in between the extraction port of the booth and the workpiece (block 20). The correct approach is explained in block 19. **Hand washing facilities** (blocks 28 & 29): Law requires that the facility provided should be adequate and suitable and maintained in good working order.

## Score Sheet: COSHH & LOCHER Trader Board Game

| Facilities Manager's Name: |  |            |                                    |   | When missing a dice throw due to COSHHed, insert a "-" in Dice score |            |                                    |   |  |            |                                    |   |  |            |                                    |   |
|----------------------------|--|------------|------------------------------------|---|--|------------|------------------------------------|---|--|------------|------------------------------------|---|--|------------|------------------------------------|---|
| Dice<br>Throw<br>No.       | Player 1 - Name:   |            |                                    |   | Player 2 - Name:   |            |                                    |   | Player 3 - Name:   |            |                                    |   | Player 4 - Name:   |            |                                    |   |
|                            | Dice<br>score  | Move<br>to | Any move<br>"Back to",<br>required | Business<br>number on<br>the board<br>& Value | Dice<br>score  | Move<br>to | Any move<br>"Back to",<br>required | Business<br>number on<br>the board<br>& value | Dice<br>score  | Move<br>to | Any move<br>"Back to",<br>required | Business<br>number on<br>the board &<br>Value | Dice<br>score  | Move<br>to | Any move<br>"Back to",<br>required | Business<br>number on<br>the board &<br>Value |
| 1                          |  |            |                                    |   |  |            |                                    |   |  |            |                                    |   |  |            |                                    |   |
| 2                          |  |            |                                    |   |  |            |                                    |   |  |            |                                    |   |  |            |                                    |   |
| 3                          |  |            |                                    |   |  |            |                                    |   |  |            |                                    |   |  |            |                                    |   |
| 4                          |  |            |                                    |   |  |            |                                    |   |  |            |                                    |   |  |            |                                    |   |
| 5                          |  |            |                                    |   |  |            |                                    |   |  |            |                                    |   |  |            |                                    |   |
| 6                          |  |            |                                    |   |  |            |                                    |   |  |            |                                    |   |  |            |                                    |   |
| 7                          |  |            |                                    |   |  |            |                                    |   |  |            |                                    |   |  |            |                                    |   |
| 8                          |  |            |                                    |   |  |            |                                    |   |  |            |                                    |   |  |            |                                    |   |
| 9                          |  |            |                                    |   |  |            |                                    |   |  |            |                                    |   |  |            |                                    |   |
| 10                         |  |            |                                    |   |  |            |                                    |   |  |            |                                    |   |  |            |                                    |   |
| 11                         |  |            |                                    |   |  |            |                                    |   |  |            |                                    |   |  |            |                                    |   |
| 12                         |  |            |                                    |   |  |            |                                    |   |  |            |                                    |   |  |            |                                    |   |
| 13                         |  |            |                                    |   |  |            |                                    |   |  |            |                                    |   |  |            |                                    |   |
| 14                         |  |            |                                    |   |  |            |                                    |   |  |            |                                    |   |  |            |                                    |   |
| 15                         |  |            |                                    |   |  |            |                                    |   |  |            |                                    |   |  |            |                                    |   |
| 16                         |  |            |                                    |   |  |            |                                    |   |  |            |                                    |   |  |            |                                    |   |
| 17                         |  |            |                                    |   |  |            |                                    |   |  |            |                                    |   |  |            |                                    |   |
| 18                         |  |            |                                    |   |  |            |                                    |   |  |            |                                    |   |  |            |                                    |   |
| 19                         |  |            |                                    |   |  |            |                                    |   |  |            |                                    |   |  |            |                                    |   |
| 20                         |  |            |                                    |   |  |            |                                    |   |  |            |                                    |   |  |            |                                    |   |
|                            | <b>Winning Bonus businesses<br/>acquired &amp; value</b> |            |                                    |   | <b>Winning Bonus businesses<br/>acquired &amp; value</b>             |            |                                    |   | <b>Winning Bonus businesses<br/>acquired &amp; value</b> |            |                                    |   | <b>Winning Bonus businesses<br/>acquired &amp; value</b> |            |                                    |   |
|                            | <b>Total market value of<br/>business owned</b>          |            |                                    |   | <b>Total market value of<br/>business owned</b>                      |            |                                    |   | <b>Total market value of<br/>business owned</b>          |            |                                    |   | <b>Total market value of<br/>business owned</b>          |            |                                    |   |
| <b>Winner</b>              |  |            |                                    |   |  |            |                                    |   |  |            |                                    |   |  |            |                                    |   |