SafeGuardAI

User Manual

WhatsApp Workplace Safety Assistant & HSE Dashboard

Version 1.0 | 15 Feb 2026

What this manual covers

Asking safety questions by WhatsApp (text or voice note)
Requesting a visual safety guide image (optional)
Using the HSE Dashboard to upload guides, monitor usage, and export reports

Table of Contents

1. Quick Start (Workers)

SafeGuardAI works inside WhatsApp. No app installation is needed.

To use it:

- Open WhatsApp and message your company's SafeGuardAI WhatsApp number.
- Type your safety question (or send a voice note).
- Read the reply and follow the guidance exactly as written in your approved safety guides.

Example questions

Task	Message you can send
Welding	What PPE do I need for welding in our workshop?
Chemical handling	What is the first aid procedure for chemical splash to eyes?
Working at height	What is the step-by-step ladder safety checklist?
Lockout/tagout	How do I perform lockout tagout for the conveyor maintenance?

2. Asking Questions on WhatsApp

Send a clear question. The system answers only using your uploaded company safety guides.

Good question format

- Start with the task: what you are about to do.
- Add the location or equipment type (if relevant).
- Ask for a checklist or procedure if you need steps.

Examples

- I am using an angle grinder. What PPE is required and what checks should I do before starting?
- What is the spill response procedure for diesel in the loading area?
- What are the safe lifting limits and required techniques for manual handling?

Note: If the answer says the topic is not in the safety guides, contact your HSE officer to add the missing procedure.

3. Voice Notes (Audio Messages)

You can send a voice note instead of typing. Voice notes are transcribed before answering.

Best practices for voice notes

- Speak clearly and keep it under 30-45 seconds if possible.
- Say the key words: task name, equipment, hazard, and what you need (procedure / PPE / checklist).
- Avoid background noise when possible.

Example voice note script

"I am about to do welding inside the workshop. What PPE and ventilation steps are required? Please give me a short checklist."

Note: Technical note: Supported audio formats: MP3, M4A, WAV, OGG, WEBM. Voice notes are transcribed using OpenAI Whisper.

4. Requesting a Visual Safety Guide Image

If enabled by your organization, you can request an image to illustrate safe setup or PPE. The reply may include an image along with text.

How to request an image

- Add a phrase like: "show me", "picture", "photo", or "image".
- Be specific about what you want to see (PPE, workstation layout, barrier placement, etc.).

Examples

- Show me a picture of the correct PPE for welding.
- Image of a safe ladder setup near a wall, with the correct angle and footing.
- Photo showing correct eye-wash station usage steps (as per our procedure).

Important: Images are guidance aids generated by AI (DALL-E 3). Always follow the written procedure and your onsite supervisor instructions. Images are illustrative and expire after a period. Generated image links are temporary (typically expire within hours).

5. Getting Better Answers (Tips)

- Use the exact task name used in your site procedures (e.g., 'LOTO', 'confined space entry').
- If you have a safety guide title or section name, mention it.
- Ask for a checklist if you need steps: 'Give me a checklist'.
- If your question involves chemicals, include the material name (or SDS product name).
- If your question involves equipment, mention the model/type (e.g., 'forklift', 'scissor lift').

What the system will not do

- It will not invent procedures that are not in your approved guides.
- It will not override supervisor instructions or site rules.
- It is not a replacement for emergency response - call your emergency line if there is immediate danger.

6. System Limitations & Response Times

Response time expectations

- Simple questions (yes/no, single fact): 5-10 seconds
- Medium questions (short procedures): 10-15 seconds
- Complex questions (multi-step procedures): 15-25 seconds
- Questions with image generation: Add 5-10 seconds

Message limits

- Maximum 20 messages per hour per worker (to prevent system abuse)
- Maximum 500 characters per question
- If you exceed the limit, wait one hour or contact your HSE officer for urgent queries

Language support

Currently supports English only. Your safety documents must be in English (.txt format).

What gets answered from documents only

The system only uses your company's uploaded safety guides. It will NOT:
- Use internet search or external sources
- Remember previous conversations beyond 10 minutes
- Answer questions about topics not in your documents

7. Common Issues & Fixes

Issue	What it means	What to do
No reply on WhatsApp	System may be offline or webhook not reachable.	Wait 1-2 minutes and try again. If still no reply, inform your supervisor/HSE.
Reply says topic is not in guides	The needed procedure was not uploaded or indexed.	Ask HSE to upload the relevant procedure (plain text .txt).
Voice note failed	Audio could not be processed or there was an unsupported format issue.	Try again with a shorter voice note, or send text instead.
Answer is too general	The question did not include enough context.	Add location/equipment/material and ask for a checklist or steps.
"Message limit exceeded"	You have sent 20 messages in the last hour.	Wait one hour, or contact an HSE officer for urgent safety questions.
Image generation failed	DALL-E API error or timeout.	The system will provide text-only guidance. Try requesting the image again later.

8. HSE Dashboard (Officers/Admin)

The dashboard is for HSE officers and admins to manage safety guides and monitor usage.

Open the dashboard

- Open your browser and go to: http://your-server-domain/api/dashboard/
- Log in using your admin credentials.

Note: Dashboard credentials are separate from WhatsApp access. Contact your IT administrator if you don't have login credentials or need a password reset.

What you can do

- Upload safety guides (plain text .txt).
- View recent chats (text and voice).
- See which guides are used most.
- Export a CSV report.

- Monitor system health at /api/webhook/status/

System requirements

For the system to work properly, ensure:
- PostgreSQL database is running
- OpenAI API key is configured in environment variables
- Twilio WhatsApp account is active and webhook is configured
- Server has network connectivity to OpenAI and Twilio APIs

9. Managing Safety Guides (.txt uploads)

SafeGuardAI answers only from uploaded guides. Keep the guide library clean and up to date.

Before uploading

- Use plain text (.txt) only.
- Keep one procedure per document when possible (clear title).
- Use headings and numbered steps (easy to reference).
- Remove scanned-image text or unreadable characters before uploading.

Upload steps

1. In the dashboard, click 'Upload Document'.
2. Enter a clear guide name (this name will show in usage reports).
3. Choose the .txt file and click Upload.
4. Confirm the guide appears in the Safety guides list.
5. Wait for indexing confirmation (chunks added to system).

Tip: Use consistent naming (e.g., "LOTO - Conveyor", "PPE - Welding", "SDS - Acetone").

Updating existing documents

- If you edit a .txt file after uploading, use the "Update in system" button to re-index it.
- Re-indexing replaces the old version in the search system.
- For major revisions, consider uploading as a new document with version number.

Example of good .txt formatting

Welding Safety Procedure## Required PPE- Welding helmet with shade 10-13 lens- Leather gloves and apron- Safety boots## Pre-welding checks1. Inspect equipment for damage2. Ensure adequate ventilation3. Clear combustible materials

10. Reports & Exports

Use exports to track engagement and identify missing procedures.

CSV Export

- From the dashboard, select 'Export Report (CSV)'.
- Use the report to review: worker questions, which guides were referenced, and usage frequency.

Suggested monthly review

- Top 10 questions asked (and whether the answers were complete).
- Any questions that returned 'not in guides' - add the missing procedures.
- Most-used guides - confirm they are the latest revision.
- Voice note usage - confirm workers are comfortable using voice notes.
- Review questions that took longest to answer (may need document improvement).

Data backup: All conversation data is stored in PostgreSQL. Vector embeddings are stored in ChromaDB (data/chroma/ directory). Ensure both are included in your backup strategy.

11. Data, Privacy, and Audit Trails

SafeGuardAI keeps an audit trail of worker questions and the responses provided.

What is stored

- Worker phone number (WhatsApp identifier).
- Message content (text or transcribed voice note).
- System response text and whether an image was included.
- Safety log entry with the guide(s) referenced.
- Timestamp of each interaction.

What is NOT stored

- Voice audio files (deleted after transcription).
- Generated images (only URLs, which expire).
- Data is NOT sent to third parties except OpenAI API for processing.

Good practice

- Avoid including personal medical details in messages. Use the emergency process for incidents.
- Restrict dashboard access to authorized staff only.
- Keep your safety guides current and aligned with site policy.

- Regularly review audit logs to ensure proper system usage.

Privacy note: Conversations are stored for audit and compliance purposes. All data remains on your server. OpenAI processes messages via API but does not retain data per their enterprise agreement (as of 2026).

12. Support Checklist

If something is not working, collect the details below and send them to the system administrator.

- Time of issue (date and approximate time).
- Worker phone number (or last 4 digits).
- What was sent (text vs voice).
- Screenshot of the WhatsApp conversation (if possible).
- If dashboard related: the page you were on and what you clicked.
- If available: server status page at /api/webhook/status/.
- Any error messages received.

Common diagnostic checks

1. Check /api/webhook/status/ for system health
2. Verify Twilio webhook is reachable (check Twilio console logs)
3. Check server logs for error messages
4. Verify OpenAI API key is valid and has credits
5. Confirm PostgreSQL and ChromaDB are running

End of manual.