COSHH Risk Assessment

General information

Substance/product name: Sulphuric Acid | **Ref no: CH066**

Description of task, activity or work process and location of use:
Sulphuric Acid is used for Trade Effluent Treatment Plant which manages the pH level of trade effluent discharged to Severn Trend. IBC with Sulphuric Acid is located in old motorbike parking area and connected directly to the plant.

Identify the persons at risk: Employees (Hygiene/Engineering Team high risk), contractors, visitors.
Sulphuric Acid is used in a controlled operation. Risk of exposure exists to the operator who change the IBC, other hygiene operatives, semi skilled and skilled engineers, Hygiene Team Leaders and members of the management team working in the area.

Hazardous information

CHIP Classification

 ☐ Toxic	 ☐ Long Term Health Hazard	 ☐ Explosive
 ☐ Corrosive	 ☐ Gases under pressure	 ☐ Flammable
 ☐ Warning	 ☐ Oxidising	 ☐ Environmental

Hazard type

Gas	Vapour	Mist	Fume	Dust	Liquid	Solid	Other (State)
☐	☐	☐	☐	☐	x	☐	☐

Route of exposure

Inhalation	Skin	Eyes	Ingestion	Other (State)
x	x	x	x	☐

Workplace Exposure Limits (WELs) ***please indicate n/a where not applicable***

Substance:	Long-term exposure level (8hrTWA):	Short-term exposure level (15 mins):
Sulphuric acid (mist)	0.05mg/m3	n/a

State the risks to health from identified hazards

Inhalation Severe irritant, may cause respiratory tract irritation. May cause bronchospasm in chlorine sensitive individuals
Skin contact Causes burns.
Eye contact Causes severe or permanent damage.
Ingestion Causes burns. Ingestion will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

Control measures

Personal Protective Equipment ***(state type and standard)***

 Face mask ☐		 Visor ☐	
 Respirator ☐		 Goggles	x Safety glasses or goggles (EN 166).
 Gloves x	Chemical-resistant protective gloves (EN 374)	 Overalls	x Wear chemical-resistant clothing
 Footwear x	Wear chemical-resistant boots	 Other	x Wear impervious bib or apron

Personal Protected Clothing Provided.

Details of PPE	Is PPE adequate?	Properly used?
Chemical resistant gloves.	Yes.	Yes.
Chemical resistant boots.	Yes.	Yes.
Full face visor.	Yes.	Yes.
Chemical resistant bib and brace.	Yes.	Yes.

Operator training/information - Existing control measures		
Description of control measures	**Are controls effective?**	**Are Training records kept?**
All operatives are chemically inducted and trained on the use of chemicals.	Yes.	Yes.
All PPE to be inspected by hygiene team leaders for signs of damage and replaced if required.	Yes.	Yes.
Staff are trained to report any damaged to their PPE to their team leader for replacement.	Yes.	Yes.

Storage requirements

n a closed vessel in a bunded area, away from reactive chemicals (Ambient temperatures above 0 oC.)

Disposal requirements

Environmentally hazardous: **Yes**
Marine pollutant :**Yes**
General information
When handling waste, the safety precautions applying to handling of the product should be considered. Do not mix with other chemicals.
Disposal methods
Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. | Consideration should be given to water authority effluent permits.
Dispose in compliance with The Hazardous Waste Regulations 2005.
European Waste Catalogue: 20 01 15* - alkaline.

Operator training/information

All operatives trained and certified for use of this product

Health surveillance

Is health surveillance or monitoring required?	Yes	☐	No	☑
If yes is it carried out?	Yes	☐	No	☐

Emergencies

First aid

General information

Inhalation Remove from exposure. Keep warm and at rest. If there is respiratory distress, give oxygen. If respiration stops or shows signs of failing, apply artificial respiration. Obtain medical advice urgently.
Skin contact Immediately swab the area with dry pulp or textile then wash with water, referably under a shower, removing contaminated clothing while washing proceeds. Obtain medical attention if blistering occurs or if irritation persists. Contaminated clothing should be washed or dry cleaned before reuse.
Eye contact Immediately flush with copious quantities of water for at least 15 minutes, holding the eye open if necessary. Obtain medical attention urgently.
Ingestion Wash out mouth with water; give plenty of water or other fluids to drink. Do not induce vomiting. Obtain medical attention urgently. Treatment may be needed for pain and shock.

Most important symptoms and effects, both acute and delayed

General information
Neat product may cause chemical burns and permanent eye damage. Dilute product may cause irritation to the skin and eyes.
Inhalation
If mixed with acid products Chlorine Gas may be evolved, this can result in irritation to eyes and difficulty in breathing. If inhaled this may result in irritation to the mouth nose and respiratory tract.
Ingestion
Unlikely route of exposure without deliberate abuse. If neat chemical is ingested, chemical burning of mouth, throat and GI tract will occur. If dilute chemical is ingested, soreness of mouth, throat and GI tract may occur together with redness and blistering.
Skin contact
May cause serious chemical burns to the skin.
Eye contact
May result in permanent eye damage.

Fire

Product is non-flammable.
Suitable extinguishing media
Normal extinguishing media should be used - foam, carbon dioxide (CO2), dry Powder, water. Cool any containers exposed to fire by spraying with water.
Hazardous combustion products Sulphur oxides.
Protective equipment for firefighters
elf-contained breathing apparatus and full protective clothing must be worn in case of fire

Spillage

See spillage cleaning instruction No GEN35.
The Hygiene Manager is responsible for the management of a chemical spillage and should be informed of any occurrence.
Any person finding or creating a spillage must take the following actions immediately:
Where possible stop or reduce the spillage – without placing themselves in danger
Alert all necessary personnel of the spillage
Take all steps to reduce and / or eliminate environmental and safety risks.
Report all leaks and spillages of chemical to your Team Leader or an Area Manager straight away. Do not expose yourself to the chemical until you are aware of all hazards associated with it.
Get a copy of the Safety Data Sheet for the chemical. This provides information about the risks associated with the chemical. Copies are available in the high care hygiene office, area manager's office and first aid room.
Follow instructions for handling and use of the chemical and wearing appropriate Personal Protective Equipment (PPE) such as rubber boots, chemical suite, gloves, goggles etc. PPE is available from the Hygiene Manager or Hygiene Team Leaders.
Once all measures have been taken to prevent harm assess the spillage. Where can the spillage go? – Can it go down drains?
Use the Spill Kit to control the spillage, trying to keep the spillage to as small an area as possible. The Spill Kit is available from the Hygiene Manager.

Emergency plans

Are emergency plans required? Yes ☐ No ☑ if yes attach emergency plans to this form

Additional control measures

Is exposure adequately controlled? Yes ☑ No ☐ If no complete below with additional control measures.

Additional controls required	Action by whom?	Action by?	Date completed

Assessment authorisation and review

Assessed by	Approved by	Date	Review date
Jakub Cholewa	Alex Arthur	09/04/21	08/04/2024