

1. Identification of the substance/preparation and of the company

- Identification of the product:

Trade name: SPUR Liquid Farmer, comprising Part A and Part B

- Use of the substance/preparation: Cleaner, bleacher, reducer for use in analogue photography (cleansing of development vessels and film-tank reels, bleaching of developed monochrome negatives, reducing of developed monochrome negatives).

- Manufacturer/distributor identification

Manufacturer: SPUR Photochemie
Dr. Heidrich und Schain GbR
Schmiedestr. 31, 52379 Langerwehe
Germany
Phone: 0049 (0)2423-6198
Fax: 0049 (0)2423-406980
Email: schain@spur-photo.com

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Fax: 0049 (0)2423-406980
Email: schain@spur-photo.com

- Further information: 0049 (0)2423-6198

- Competent person, responsible for Safety Data Sheet (email):
schain@spur-photo.com (management)

- Emergency telephone (Germany): 0049 (0)30-19240 (Berlin poison control centre for symptoms of intoxication and embryonal toxicology), 0049 (0)6131-19240 Mainz advice centre for poisoning

2. Hazards identification

- Classification of the substance or mixture
- Classification according to Regulation (EC) No 1272/2008

Part A is not classified according to CLP-Regulation

Part B is not classified according to CLP-Regulation

Applicable for both Parts

- Classification according to directive 67/548/EEC or directive 1999/45/EC: none
- Specific information on dangers for humans and the environment: none
- Classification system:
According to the criteria of the directives 67/548/EEC and 1999/45/EC respectively, or according to the Regulation (EC) No 1272/2008, the product is classified as not dangerous.
- Labelling elements
- Labelling according to Regulation (EC) No 1272/2008 not required
- Hazard pictograms not required
- Signal word not required
- Hazard warnings not required
- Safety notes not required
- Other hazards
- Results of the PBT and vPvB assessment
- PBT: not applicable
- vPvB: not applicable

3. Composition/Information on ingredients

- Chemical characterisation: aqueous solution
- Hazardous ingredients:

Part A: Potassium ferricyanide: EINECS: 237-323-3; CAS-RN: 13746-66-2

Percentage: < 20 %

Classification according to Regulation (EC) No 1272/2008: not required

Part B: Ammonium thiosulfate: EINECS:231-982-0; CAS-RN: 7783-18-8

Percentage: < 20 %

Classification according to Regulation (EC) No 1272/2008: not required

4. First-aid measures

- General information: Remove items of clothing contaminated by the product immediately.
- Inhalation: Move affected person to fresh air and keep at rest. In case of persistent complaints seek medical advice.
- Skin contact: Wash off thoroughly with plenty of water.
- Eye contact: Remove contact lenses, open eyelids, flush thoroughly with water and consult a doctor.
- Ingestion: If swallowed, rinse mouth and drink plenty of water. Do not induce vomiting. Seek medical advice.
- Special information for your doctor: None.

5. Fire-fighting-measures

- Suitable extinguishing media: CO₂, extinguishing powder, water spray. Fight larger fires with water spray jets or alcohol-resistant foam.
- Non suitable extinguishing media: None
- Specific Hazards: Hazardous combustion products: sulphur dioxide
- Protective equipment: Do not inhale explosion and combustion gases. Wear breathing apparatus and protective clothing.
- Particular fire and explosion hazards: None

6. Accidental release measures

- Personal precautions: Provide for sufficient ventilation.
- Environmental precautions: Do not empty into drains; prevent the product from contaminating surface or ground water. If waters or sewage are contaminated, report to the competent authorities. Dilute with plenty of water.
- Methods for cleaning up: Absorb with a liquid-binding agent (sand, mountain flour, acid binder, universal binding agent, sawdust). Sweep up and store in suitable container, dispose of contaminated material as waste labelled according to waste law in force.
- Additional information: Flush residues with water.

7. Handling and storage

- Handling:

- Safe handling: Provide for proper ventilation in work area. Avoid long-term and repeated skin contact; no special measures required if used properly.
- Fire and explosion control: No special measures required.

- Storage:

- Storage facilities and containers: No specific requirements.
- Storage with other substances: Do not store with acids, strong oxidants, and food.

- Further information on storage conditions:

- Store in well-sealed containers cool and dry. Store away from heat and direct sunlight. Do not expose to light. Keep locked up and out of reach of children. Recommended storage temperature: 5 to 15°C / 41 to 59°F.

- Storage class:

- Classification according to Ordinance on Industrial Safety and Health: -

8. Exposure controls/personal protection

- Additional information for system design: -

- Components with workplace-specific control parameters:	
13746-66-2 Potassium ferricyanide	
MAC (Germany)	2E mg/m ³ calculated as CN

- Personal protective equipment:
General protection and hygiene measures: Wash hands before breaks and end of work. Do not inhale gases, vapours, or aerosols. Avoid skin and eye contact.
Respiratory protection: Not required.
Hand Protection: Wear protective gloves made from materials impermeable and resistant to the product/substance/preparation. The materials have to be chosen with due regard to penetration times, permeation rates, and degradation.
Glove material: The choice of a suitable glove not only depends on the material, but also on further quality features and may vary from manufacturer to manufacturer. As the product is a preparation composed of a number of substances, the stability of the glove materials is not predictable and, therefore, needs to be tested before use. The liquid tightness of the glove has to be tested before it is used again. Due to a lack of testing, no glove material can be recommended for the product/substance/preparation.
Penetration time of the glove material: The exact breakthrough time can be given by the protective gloves manufacturer and is to be observed.
Eye Protection: Wear safety goggles.
Skin/body protection: Wear protective clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

- General information	Part A	Part B
Form:	liquid	liquid
Colour:	dark red to brown	white
Odour:	specific, slightly pungent	specific, slight smell of ammonia
- Change of state		
Melting point / range	not determined	not determined > 100° C
Boiling point / range	> 100° C	
- Flash point	not applicable	not applicable
- Auto-flammability	no ~	no ~
- Explosion hazard	no ~	no ~
- Vapour pressure at 20° C	not specified	not specified
- Density at 20° C	1.15 g/cm ³	1.15 g/cm ³
- Solubility in/miscibility with water	complete	complete
-pH-value at 20° C	7.6	6,3
- Solvent content		
Organic solvent:	0.0 %	0.0 %
Water:	72.32 %	72.32 %
VOC (EU):	0.0 %	0.0 %
- Solids content:	27.68 %	27.68 %

10. Stability and reactivity

- Thermal decomposition/conditions to avoid:
No decomposition when used properly.

- Materials to avoid: Strong acids and oxidising agents

- Hazardous reactions: No hazardous reactions known.

- Hazardous decomposition products: No hazardous decomposition products known.

11. Toxicological information

Part A:

- Acute toxicity

- Classification relevant LD/LC50 values:		
13746-66-2 Potassium ferricyanide		
Oral:	LD50	2970 mg/kg (mouse)

- Primary irritant effect:
- Skin: slight irritant effect.
- Eye: slight irritant effect.
- Sensitisation: no sensitising effects known.

Part B:

- Acute toxicity

- Classification relevant LD/LC50 values:		
7783-18-8 Ammonium thiosulfate		
Oral:	LD50	2890 mg/kg (rat)
Demal:	LD50	> 2000 mg/kg (rabbit)

- Primary irritant effect:
- Skin: no irritant effect.
- Eye: no irritant effect.
- Sensitisation: no sensitising effects known.

12. Ecological information

- Ecotoxicity

Part A:

- Aquatic toxicity	
7783-18-8 Ammonium thiosulfate	
EC50	48h: 549 mg/l (daphnia magna)
LC50	96h: 69.6 mg/l (Salmo gairdnerii)

- General Information:

Water hazard class 2 (self-assessment according to VwVwS(German administrative regulation regarding water pollutants)): Hazardous to water.

Do not empty into drains; do not let product contaminate ground water, waters or sewage.

Part B:

- Aquatic toxicity	
13746-66-2 Potassium ferricyanide	
LC50	96h : 770 mg/l (freshwater)

- General Information:

Water hazard class 1 (self-assessment according to VwVwS(German administrative regulation regarding water pollutants)): slightly hazardous to water.

Do not empty into drains undiluted or in large quantities; do not let product contaminate ground water, waters or sewage undiluted or in large quantities.

13. Disposal considerations

- Product:
- Recommendation: Do not dispose of the product through household waste. Do not let product contaminate sewage.

- European Waste Directory	
060205	alkaline brine solution, Part A
060106	acidic brine solution, Part B

- Uncleaned packaging:
- Recommendation: Disposal according to official regulations and requirements.
- Recommended cleaning agent: Water, if necessary, with cleaning agent.

14. Transport information

- Land transport ADR/RID and GGVS/GGVE (cross-border/inland):
- ADR/GGVS/E class: No dangerous good, not classified
- Maritime transport IMDG/GGVSea:
- IMDG/GGVSea-class: No dangerous good, not classified
- Marine pollutant: No
- Air transport ICAO-TI and IATA-DGR:
- ICAO/IATA class: No dangerous good, not classified
- UN "Model Regulation" : No dangerous good, not classified

15. Regulatory information

Designation according to EC guidelines:

Both Parts:

- Designation according to CLP-Regulation (EC) No 1272/2008 not required
- Hazard pictograms not required
- Signal word not required
- Hazard warnings not required
- Safety notes not required

Special designation of certain preparations: -

National regulations:

Classification according to Ordinance on Industrial Safety and Health (Betriebssicherheitsverordnung: BetrSichV): -

Water hazard class according to VwVwS (German administrative regulation regarding water pollutants):

Part A: Water hazard class 2 (self-assessment): Hazardous to water.

Part B: Water hazard class 1 (self-assessment): Slightly hazardous to water.

16. Other information

The data given in this safety data sheet is based on our present knowledge. It does not guarantee any specific product features and does not establish a contractual legal relationship.

- Responsible for data sheet: management

- Person of contact: Dipl.-Ing. Heribert Schain

- Abbreviations and Acronyms

ADR: Accord européen sur le transport des marchandises Dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

RID: Règlement internationale concernant le transport des marchandises dangereuses par chemin de fer (Regulations concerning the international Transport of Dangerous Goods by Rail)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

GefStoffV: Gefahrstoffverordnung (Ordinance on Hazardous Substances, Germany)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

LDLo Lethal dose low

EC50 half maximal effective concentration