

SAFETY DATA SHEET according to Regulation 1907/2006

Product name: **Test ink blue 60 to 70**

Creation date: **1.2.2018** · Version: 1

SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING



chemius.net/hUgb6

1.1. Product identifier

Product name

Test ink blue 60 to 70

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use

Test ink

Uses advised against

No information

1.3. Details of the supplier of the safety data sheet

Supplier

Fischer Test Tinten

Address: Rheinstraße 25 A, D-76479 Steinmauern, Germany

Tel.: +(49) 7222 - 901844

Fax: +(49) 7222 - 901845

1.4. Emergency telephone number

Emergency

112

Supplier

+(49) 7222 - 901844

SECTION 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Reg. 1272/2008

Carc. 2; H351 Suspected of causing cancer.

Repr. 1B; H360FD May damage fertility. May damage the unborn child.

STOT RE 2; H373 May cause damage to organs (blood, cardiovascular system) through prolonged or repeated exposure.

2.2 Label elements

2.2.1. Labelling according to Regulation (EC) No 1272/2008 [CLP]



Signal word: **Danger**

H351 Suspected of causing cancer.

H360FD May damage fertility. May damage the unborn child.

H373 May cause damage to organs (blood, cardiovascular system) through prolonged or repeated exposure.

P201 Obtain special instructions before use.

P260 Do not breathe the mist/vapours/spray.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P308 + P313 IF exposed or concerned: Get medical advice/attention.

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2.2.2. Contains:

formamide (CAS: 75-12-7, EC: 200-842-0, Index: 616-052-00-8)

2.2.3. Special provisions

Restricted to professional users.

2.3. Other hazards

No information

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Product description

Aqueous solution.

3.1. Substances

For mixtures see 3.2.

3.2. Mixtures

Chemical name	CAS EC Index	%	Classification according to Regulation (EC) No 1272/2008 [CLP]	REACH reg. number
formamide [SVHC]	75-12-7 200-842-0 616-052-00-8	20 - 100	Carc. 2; H351 Repr. 1B; H360FD STOT RE 2; H373	01-2119496064-35

Notes for substances:

SVHC Substance of very high concern.

SECTION 4. FIRST AID MEASURES

4.1. Description of first aid measures

General measures

Take off all contaminated clothing immediately.

Inhalation

Remove patient to fresh air-move out of dangerous area. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Seek medical help immediately.

Skin contact

Take off all contaminated clothing. Areas of the body that have come into contact with the product must be rinsed with water. If feeling unwell seek medical help.

Eye contact

Immediately flush eyes with running water, keeping eyelids open. If irritation does not stop, seek professional medical treatment!

Ingestion

Do not induce vomiting. Drink plenty of water. Rinse mouth with water. Immediately consult a doctor. Show the physician the Safety Data Sheet or label.

4.2. Most important symptoms and effects, both acute and delayed

Inhalation

Excessive exposure to spray mist, fog, or vapour may cause respiratory irritation.
Coughing, sneezing, nasal discharge, labored breathing.

Skin contact

Contact with skin may cause irritation (redness, itching).

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Eye contact

Contact with eyes can cause irritation (redness, tearing, pain).

Ingestion

May cause abdominal discomfort.

May cause nausea/vomiting and diarrhea.

Loss of righting reflex and ataxia (impaired locomotor coordination).

4.3. Indication of any immediate medical attention and special treatment needed

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SECTION 5. FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Carbon dioxide. Dry chemical powder. Water spray. Alcohol resistant foam.

Unsuitable extinguishing media

Full water jet.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products

Flammable. In case of heating harmful vapours/gases can be generated. In event of fire carbon oxides (COx) are generated.

Nitrogen oxides (NOx).

Hydrogen cyanide (HCN).

5.3. Advice for firefighters

Protective actions

Attention: Danger of explosion! Extinguish from a safe distance! Prolonged heating can cause explosion. Vapours are heavier than air and spread along floor. Vapours may form explosive mixtures with the air. In case of fire or heating do not breathe fumes/vapours. Cool containers at risk with water spray jet. If possible remove containers from endangered area. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters

Fire-fighters should wear appropriate protective clothing for fire-fighters (including helmets, protective boots and gloves) (EN 469) and self-contained breathing apparatus (SCBA) with a full face-piece (EN 137) .

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment

Use personal protective equipment (Section 8).

Emergency procedures

Ensure adequate ventilation. Keep away from sources of ignition; No smoking! Evacuate the danger zone. Prevent access to unprotected personnel. Do not breathe vapour or mist. Avoid contact with skin, eyes and clothing. No action shall be taken involving any personal risk or without suitable training.

6.1.2. For emergency responders

During intervention, use personal protective equipment (Section 8).

6.2. Environmental precautions

Do not allow product to reach water/drains/sewage systems or permeable soil. If accidental entry into water or ground occurs, inform responsible authorities.

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6.3. Methods and material for containment and cleaning up

6.3.1. For containment

Stem the spill if this does not pose risks.

6.3.2. For cleaning up

Prevent release into the sewer, water, basements or confined areas. Absorb product (with inert material), collect it in special container and dispose it according to valid regulations on handling with waste. Wear appropriate personal protective equipment. Ventilate the premises. Dispose in accordance with applicable regulations (see section 13).

6.3.3. Other information

See Section 5 for firefighting measures. See Section 10: stability and reactivity.

6.4. Reference to other sections

See also sections 8 and 13.

SECTION 7. HANDLING AND STORAGE

7.1. Precautions for safe handling

7.1.1. Protective measures

Measures to prevent fire

Ensure adequate ventilation. Keep away from sources of ignition - No smoking.

Measures to prevent aerosol and dust generation

Use general or local exhaust ventilation to prevent inhaling vapours and aerosols.

Measures to protect the environment

Do not discharge into drains, surface water and soil. After use immediately close container tightly.

7.1.2. Advice on general occupational hygiene

Use good personal hygiene practices-wash hands at breaks and when done working with material. Do not eat, drink or smoke while working. Do not breathe vapours/mist. Avoid contact with skin, eyes and clothes. Remove contaminated clothes and wash before re-use. Wear suitable protective equipment; see chapter 8.

7.2. Conditions for safe storage, including any incompatibilities

7.2.1. Technical measures and storage conditions

Store in accordance with local regulations. Keep in tightly closed container. Keep in a cool, dry and well ventilated place. Keep in locked place. Store between +15°C to 25°C.

7.2.2. Packaging materials

Store in original container.

7.2.3. Requirements for storage rooms and vessels

Close open containers after use. Put the container upright to prevent from leaking.

7.2.4. Storage class

Storage class: 6.1 C

7.2.5. Further information on storage conditions

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7.3. Specific end use(s)

Recommendations

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Industrial sector specific solutions

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SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

8.1.1. Occupational Exposure limit values

Chemical name (CAS)	Limit values		Short-term exposure limit		Remarks	Biological Tolerance Values
	ml/m ³ (ppm)	mg/m ³	ml/m ³ (ppm)	mg/m ³		
Formamide (75-12-7)	20	37	30	56		

8.1.2. Information on monitoring procedures

BS EN 14042:2003 Title Identifier: Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents.

8.1.3. DNEL values

For components

Chemical name	Type	exp. route	exp. frequency	value	Remark
formamide (75-12-7)	Worker	inhalation	long term (systemic effects)	6,6 mg/m ³	
formamide (75-12-7)	Worker	dermal	long term (systemic effects)	0,952 mg/kg bw/day	

8.1.4. PNEC values

For components

Chemical name	exp. route	value	Remark
formamide (75-12-7)	fresh water	0,5 mg/L	
formamide (75-12-7)	water, intermittent release	5 mg/L	fresh water
formamide (75-12-7)	marine water	0,5 mg/L	
formamide (75-12-7)	water treatment plant	100 mg/L	
formamide (75-12-7)	fresh water sediment	1,26 mg/kg	dry weight
formamide (75-12-7)	soil	0,151 mg/kg	dry weight

8.2. Exposure controls

8.2.1. Appropriate engineering control

Substance/mixture related measures to prevent exposure during identified uses

Use good personal hygiene practices-wash hands at breaks and when done working with material. Handle in accordance with good industrial hygiene and safety practice. Do not breathe vapours/aerosols. Do not eat, drink or smoke while working. Avoid contact with skin, eyes and clothes.

Organisational measures to prevent exposure

Remove all contaminated clothes immediately and wash them before reuse.

Technical measures to prevent exposure

Provide good ventilation and local exhaust in the area with increased concentration.

8.2.2. Personal protective equipment

Eye and face protection

Safety glasses with side protection (EN 166).

Hand protection

Use chemical resistant gloves classified according to standard 374. Follow the manufacturer's instructions about permeability and penetration times and specific workplace conditions (mechanic load, exposure duration). Plan out resting phases for skin recuperation. It is recommended to use preventative skin protection (skin cream).

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Appropriate materials

Material	Thickness	Penetration Time	Remark
Natural rubber	0,65 mm	> 480 min	long term use; protective index 6; EN 374-6
Latex	0,65 mm	> 480 min	long term use; protective index 6; EN 374-6

Skin protection

Cotton protective clothing (EN ISO 13688) and shoes that cover the entire foot (EN ISO 20345).

Respiratory protection

In case of insufficient ventilation wear suitable respiratory protection. Always follow respirator manufacturer's instructions regarding wearing and maintenance. Use the mask with filter A (color: brown) for organic fumes and vapors (boiling point > 65 ° C) according to EN 14387 standard. If the substance threshold is higher than the relative exposure limit or the concentration of oxygen in the workplace is less than 17% volume wear self-contained air breathing apparatus (EN 137, EN 138).

Thermal hazards

-

8.2.3. Environmental exposure controls

Technical measures to prevent exposure

Do not allow product to reach drains, sewage systems or ground water.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

- Physical state:	liquid
- Colour:	blue
- Odour:	like ammonia

Important health, safety and environmental information

- pH	8 – 10 at 20 °C, conc. 200 g/l (formamide)
- Melting point/Freezing point	2,6 °C (formamide)
- Initial boiling point/boiling range	ca. 218,3 °C (1013 hPa)
- Flashpoint	ca. 152 °C (1013 hPa)
- Evaporation rate	No information
- Ignition temperature	No information
- Explosion limits (vol%)	2,7 – 19 vol % (formamide)
- Vapour pressure	0,081 hPa at 25 °C (formamide)
- Vapour density	1,56 (air=1)
- Density	Density: ca. 1,13 g/cm ³ at 20 °C
- Solubility	Water: miscible
- Partition coefficient	No information
- Auto-ignition temperature	> 500 °C (formamid, ECHA)
- Decomposition temperature	> 140 °C (formamid, ECHA)
- Viscosity	dynamic: 3,75 mPas at 20 °C (Formamide)
- Explosive properties	Product is not explosive.
- Oxidising properties	No oxidizing properties.

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9.2. Other information

- Weight organic solvents	ca. 70 % (VOC)
- Remarks:	

SECTION 10. STABILITY AND REACTIVITY

10.1. Reactivity

When heated can give off ignitable vapours. Vapours may form explosive mixture with air.

10.2. Chemical stability

Product is stable under normal conditions according to handling and storage.

10.3. Possibility of hazardous reactions

Exothermic reaction with alkalis and oxidizing agents. Explosion hazard: Phosphorus oxides, hydrogen peroxide.

10.4. Conditions to avoid

Protect from heat, direct sunlight, open fire, free sparks. Autodecomposition (> 140°C) if strongly heated.

10.5. Incompatible materials

No data.

10.6. Hazardous decomposition products

Under normal use conditions no hazardous decomposition products expected. In case of fire/explosion vapours dangerous for health are spread. See subsection 5.2.

SECTION 11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

11.1.1. Acute toxicity

For components

Chemical name	exp. route	Type	species	Time	value	Method	Remark
formamide (75-12-7)	oral	LD ₅₀	rat		5325 mg/kg		ECHA
formamide (75-12-7)	dermal	LD ₅₀	rat		> 3000 mg/kg		ECHA
formamide (75-12-7)	inhalation	LC ₅₀	rat	4 h	> 21 mg/l		vapour

11.1.2. Skin corrosion/irritation, serious eye damage/irritation

Additional information

The product is not classified as irritating to skin and eyes.

11.1.3. Respiratory or skin sensitisation

Additional information

Not classified as sensitizing.

11.1.4. Carcinogenicity, Mutagenicity, Reproductive toxicity

Carcinogenicity

- For components

Chemical name	exp. route	Type	species	Time	value	result	Method	Remark
formamide (75-12-7)						Can cause cancer.		

(Germ cell) mutagenicity

No information

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Reproductive toxicity

- For components

Chemical name	Reproductive toxicity type	Type species	Time	value	result	Method	Remark
formamide (75-12-7)	Reproductive toxicity	-			May impair fertility or damage the unborn child.		

Summary of evaluation of the CMR properties

May impair fertility. May cause harm to the unborn child. Suspected of causing cancer.

11.1.5. STOT - single and repeated exposure

For components

Chemical name	exp. route	Type species	Time	organ	value	result	Method	Exposure	Remark
formamide (75-12-7)	-	-				May cause damage to organs (blood, cardiovascular system) through prolonged or repeated exposure.		Repeated exposure	

Additional information

STOT SE (single exposure): not classified. May cause damage to organs through prolonged or repeated exposure.

11.1.6. Aspiration hazard

Additional information

Aspiration hazard: Not Classified.

SECTION 12. ECOLOGICAL INFORMATION

12.1. Toxicity

12.1.1. Acute (short-term) toxicity

For components

Substance (CAS Nr.)	Type	Value	Exposure time	Species	Organism	Method	Remark
formamide (75-12-7)	LC50	6569 mg/L	96 h	fish			ECHA
	EC ₅₀	> 500 mg/L	48 h	aquatic invertebrates			ECHA
	EC ₅₀	> 1000 mg/L	30 min	Microorganisms			ECHA
	NOEC	1000 mg/L	30 min	microorganisms			ECHA

12.1.2. Chronic (long-term) toxicity

No information

12.2. Persistence and degradability

12.2.1. Abiotic degradation, physical- and photo-chemical elimination

For components

Substance (CAS Nr.)	Environment	Type / Method	Half Time	Evaluation	Method	Remark
formamide (75-12-7)	Air		28 days	90 - 100 %		biotic/abiotic

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12.2.2. Biodegradation

For components

Substance (CAS Nr.)	Organism	Rate	Time	Evaluation	Method	Remark
formamide (75-12-7)	-			readily biodegradable		
formamide (75-12-7)	ThOD	1,777 mg/mg				nitrification
formamide (75-12-7)	ThOD	0,3554 mg/mg				
formamide (75-12-7)	ThCO ₂	0,9775 mg/mg				

12.3. Bioaccumulative potential

12.3.1. Partition coefficient

For components

Substance (CAS Nr.)	Media	value	Temperature	pH	Concentration	Method
formamide (75-12-7)	Octanol-water (log Kow)	-0,82	25 °C			ECHA

12.3.2. Bioconcentration factor (BCF)

No information

12.4. Mobility in soil

12.4.1. Known or predicted distribution to environmental compartments

No information

12.4.2. Surface tension

No information

12.4.3. Adsorption/Desorption

For components

Substance (CAS Nr.)	Organism	Criterion	value	Evaluation	Method	Remark
formamide (75-12-7)	Soil		0,177	Adsorption coefficient	ECHA	Organic Carbon

12.5. Results of PBT and vPvB assessment

No evaluation.

12.6. Other adverse effects

No information

12.7. Additional information

For product

Do not allow to enter ground water, water course or sewage system.

Water hazard class 1 (Self-assessment): slightly hazardous for water

SECTION 13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

13.1.1. Product / Packaging disposal

Waste chemical

Waste is classified as hazardous waste. Do not allow to enter sewers. Do not dispose together with household garbage. Disposal must be made according to official regulations: to leave it to authorized collector/remover/transformer of hazardous waste.

Packaging

Unclean containers are classified as hazardous waste - should be handled the same as waste disposal. Empty containers represent a fire hazard as they may contain flammable product residues and vapour. Completely emptied containers leave to approved waste disposal authorities in charge.

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13.1.2. Waste treatment-relevant information

Disposal in accordance with the Rules on the management of waste.

13.1.3. Sewage disposal-relevant information

-

13.1.4. Other disposal recommendations

-

SECTION 14. TRANSPORT INFORMATION

14.1. UN number

not applicable

14.2. UN proper shipping name

ADR, RID, IMDG, ADN, IATA: Not dangerous according to transport regulations.

14.3. Transport hazard class(es)

not applicable

14.4. Packing group

not applicable

14.5. Environmental hazards

NO

14.6. Special precautions for user

not applicable

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

not applicable

SECTION 15. REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

- Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (including last amendment Commission Regulation (EU) 2015/830)

- Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures

15.1.1. Information according 2004/42/EC about limitation of emissions of volatile organic compounds (VOC-guideline)

not applicable

15.1.2. Special instructions

Water hazard class 1 (Self-assessment): slightly hazardous for water.

Technical instructions air: class: I; content: 100%; mass flow: 0,1 kg/h; mass concentration: 20 mg/m³.

NOTE: Formamide is listed on the candidate list for inclusion in Annex XIV, article 4 (REACH).

The employment limitations under the regulations to the protection from hazardous materials of pregnant women and young mothers guideline and the protection of young persons act are to be observed.

Ensure all national/local regulations are observed.

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15.2. Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

SECTION 16. OTHER INFORMATION

Indication of changes

-

Key literature references and sources for data

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List of relevant H phrases

H351 Suspected of causing cancer.

H360FD May damage fertility. May damage the unborn child.

H373 May cause damage to organs (blood, cardiovascular system) through prolonged or repeated exposure.



- Provided correct labelling of the product
- Compliance with the local legislation
- Provided correct classification of the product
- Provided adequate transport data

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The information of this SDS is based on the present state of our knowledge and meets the requirements of EU and national laws. The user's working conditions however, are beyond our knowledge and control. The product is not to be used for purposes other than those specified under section 1 without a written permission. It remains the responsibility of the user to ensure that the necessary steps are taken to meet the laws and regulations. Handling of the product may only be done by people above 18 years of age, who are satisfactorily informed of how to do the work, the hazardous properties and necessary safety precautions. The information given in this SDS is to describe the product only in terms of health and safety requirements and should not, therefore, be construed as guaranteeing specific properties.