

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

13497 RB black

Version number: V 2.0
Replaces version of: 22.08.2014 (Version 1.0)

Date of compilation: 2015-09-02

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name **13497 RB black**
Registration number (REACH) not relevant (mixture)

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

Relevant identified uses: writing fluid
roller ball ink
Uses advised against: At present no such uses are identified

1.3 Details of the supplier of the safety data sheet

Yafa A Pen Company
21306 Gault Street, Canoga Park, California, 91303, USA
email: kattyuganva@yafa.com
phone: +1 818 704 8888

1.4 Emergency telephone number

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP)

Section	Hazard class	Cat-egory	Hazard class and category	Hazard state-ment
3.9	specific target organ toxicity - repeated exposure	Cat. 2	(STOT RE 2)	H373

Remarks

For full text of H-phrases: see SECTION 16.

The most important adverse physicochemical, human health and environmental effects

Delayed or immediate effects can be expected after short or long-term exposure.

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2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 (CLP)

Signal word

Warning

Pictograms

GHS08



Hazard statements

H373 May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

Precautionary statements - prevention

P260 Do not breathe vapours/spray.
P270 Do not eat, drink or smoke when using this product.
P280 Wear protective gloves/eye protection.

Precautionary statements - response

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P314 Get medical advice/attention if you feel unwell.
P332+P313 If skin irritation occurs: Get medical advice/attention.
P337+P313 If eye irritation persists: Get medical advice/attention.
P391 Collect spillage.

Precautionary statements - disposal

P501 Dispose of contents/container to recovery or disposal facilities.

2.3 Other hazards

There is no additional information.

SECTION 3: Composition/information on ingredients





3.1 Substances

not relevant (mixture)

3.2 Mixtures

Description of the mixture:

Aqueous dye solution of polyhdric alcohols, surfacctants, polymeres, corrosion inhibitors and preservatives

Hazardous ingredients acc. to EU regulation				
Name of substance	Identifier	wt%	Classification acc. to 1272/2008/EC	Pictograms
2,2'-oxydiethanol	CAS No 111-46-6 EC No 203-872-2	5 - 15	Acute Tox. 4 / H302 Acute Tox. 4 / H332 STOT RE 2 / H373	 
ethane-1,2-diol	CAS No 107-21-1 EC No 203-473-3	5 - 15	Acute Tox. 4 / H302 STOT RE 2 / H373	 

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For full text of abbreviations: see SECTION 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General notes

Do not leave affected person unattended. Remove victim out of the danger area. Keep affected person warm, still and covered. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness place person in the recovery position. Never give anything by mouth.

Following inhalation

If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. Provide fresh air.

Following skin contact

Wash with plenty of soap and water.

Following eye contact

Remove contact lenses, if present and easy to do. Continue rinsing. Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.

Following ingestion

Rinse mouth with water (only if the person is conscious). Do NOT induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms and effects are not known to date.

4.3 Indication of any immediate medical attention and special treatment needed

none

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

water spray, alcohol resistant foam, BC-powder, carbon dioxide (CO₂)

Unsuitable extinguishing media

water jet

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products

nitrogen oxides (NO_x), carbon monoxide (CO), carbon dioxide (CO₂)

5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Co-ordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.

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SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Remove persons to safety.

For emergency responders

Wear breathing apparatus if exposed to vapours/dust/spray/gases.

6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose it.

6.3 Methods and material for containment and cleaning up

Advices on how to contain a spill

Covering of drains.

Advices on how to clean up a spill

Wipe up with absorbent material (e.g. cloth, fleece). Collect spillage (sawdust. , kieselgur (diatomite), sand, universal binder).

Appropriate containment techniques

Use of adsorbent materials.

Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Recommendations

• Measures to prevent fire as well as aerosol and dust generation

Use local and general ventilation. Use only in well-ventilated areas.

Advice on general occupational hygiene

Wash hands after use. Do not to eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feedingstuffs.

7.2 Conditions for safe storage, including any incompatibilities

Managing of associated risks

Incompatible substances or mixtures

Observe hints for combined storage.

7.3 Specific end use(s)

See section 16 for a general overview.

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SECTION 8: Exposure controls/personal protection

8.1 Control parameters

National limit values

Occupational exposure limit values (Workplace Exposure Limits)

Country	Name of agent	CAS No	Identifier	TWA [ppm]	TWA [mg/m ³]	STEL [ppm]	STEL [mg/m ³]	Source
DE	2,2'-oxybisethanol	111-46-6	AGW	10	44	40	176	TRGS 900
DE	ethanediol	107-21-1	AGW	10	26	20	52	TRGS 900

Notation

STEL Short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period unless otherwise specified

TWA Time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average

Relevant DNELs/DMELs/PNECs and other threshold levels

• relevant DNELs of components of the mixture

Name of substance	CAS No	Endpoint	Threshold level	Protection goal, route of exposure	Used in	Exposure time
2,2'-oxydiethanol	111-46-6	DNEL	60 mg/m ³	human, inhalatory	worker (industry)	chronic - local effects
2,2'-oxydiethanol	111-46-6	DNEL	106 mg/kg	human, dermal	worker (industry)	chronic - systemic effects
2,2'-oxydiethanol	111-46-6	DNEL	60 mg/m ³	human, inhalatory	worker (industry)	chronic - systemic effects
ethane-1,2-diol	107-21-1	DNEL	35 mg/m ³	human, inhalatory	worker (industry)	chronic - local effects
ethane-1,2-diol	107-21-1	DNEL	106 mg/kg	human, dermal	worker (industry)	chronic - systemic effects

• relevant PNECs of components of the mixture

Name of substance	CAS No	Endpoint	Threshold level	Organism	Environmental compartment	Exposure time
2,2'-oxydiethanol	111-46-6	PNEC	10 mg/l	aquatic organisms	freshwater	short-term (single instance)
2,2'-oxydiethanol	111-46-6	PNEC	1 mg/l	aquatic organisms	marine water	short-term (single instance)
2,2'-oxydiethanol	111-46-6	PNEC	199.5 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
2,2'-oxydiethanol	111-46-6	PNEC	20.9 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
2,2'-oxydiethanol	111-46-6	PNEC	2.09 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
2,2'-oxydiethanol	111-46-6	PNEC	1.53 mg/kg	terrestrial organisms	soil	short-term (single instance)
2,2'-oxydiethanol	111-46-6	PNEC	10 mg/l	aquatic organisms	water	continuous
ethane-1,2-diol	107-21-1	PNEC	10 mg/l	aquatic organisms	freshwater	short-term (single instance)

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Name of substance	CAS No	End-point	Threshold level	Organism	Environmental compartment	Exposure time
ethane-1,2-diol	107-21-1	PNEC	1 mg/l	aquatic organisms	marine water	short-term (single instance)
ethane-1,2-diol	107-21-1	PNEC	199.5 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
ethane-1,2-diol	107-21-1	PNEC	37 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
ethane-1,2-diol	107-21-1	PNEC	3.7 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
ethane-1,2-diol	107-21-1	PNEC	1.53 mg/kg	terrestrial organisms	soil	short-term (single instance)
ethane-1,2-diol	107-21-1	PNEC	10 mg/l	aquatic organisms	water	continuous

8.2 Exposure controls

Appropriate engineering controls

General ventilation.

Individual protection measures (personal protective equipment)

Eye/face protection

Wear eye/face protection.

Skin protection

• hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. Check leak-tightness/impermeability prior to use. In the case of wanting to use the gloves again, clean them before taking off and air them well. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

• other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling.

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

Environmental exposure controls

Use appropriate container to avoid environmental contamination. Keep away from drains, surface and ground water.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state liquid
Colour black
Odour faintly perceptible

Other physical and chemical parameters

pH (value) 6.9 - 7.9 (25 °C)
Melting point/freezing point <-5 °C
Initial boiling point and boiling range >100 °C
Flash point not determined
Evaporation rate not determined
Flammability (solid, gas) not relevant (fluid)
Explosive limits not determined
Vapour pressure not determined

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Density	1.078 - 1.088 g/cm ³ at 25 °C
Solubility(ies)	
Water solubility	miscible in any proportion
Partition coefficient	
n-octanol/water (log KOW)	This information is not available.
Auto-ignition temperature	not determined
Viscosity	
• dynamic viscosity	3.3 - 3.7 mPa s
Explosive properties	none
Oxidising properties	none
Surface tension	32 - 35 N/m

SECTION 10: Stability and reactivity

10.1 Reactivity

Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials".

10.2 Chemical stability

See below "Conditions to avoid".

10.3 Possibility of hazardous reactions

No known hazardous reactions.

10.4 Conditions to avoid

There are no specific conditions known which have to be avoided.

Physical stresses which might result in a hazardous situation and have to be avoided

high temperatures

10.5 Incompatible materials

There is no additional information.

10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. Hazardous combustion products: see section 5.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Test data are not available for the complete mixture.

Classification procedure

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

Classification according to GHS (1272/2008/EC, CLP)

Acute toxicity

Shall not be classified as acutely toxic.

• Acute toxicity of components of the mixture

Name of substance	CAS No	Exposure route	ATE
2,2'-oxydiethanol	111-46-6	oral	500
2,2'-oxydiethanol	111-46-6	inhalation: vapour	11
2,2'-oxydiethanol	111-46-6	inhalation: dust/mist	>4.6
ethane-1,2-diol	107-21-1	oral	500

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Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

Serious eye damage/eye irritation

Shall not be classified as seriously damaging to the eye or eye irritant.

Respiratory or skin sensitisation

Shall not be classified as a respiratory or skin sensitiser.

Summary of evaluation of the CMR properties

Shall not be classified as germ cell mutagenic, carcinogenic nor as a reproductive toxicant.

Specific target organ toxicity (STOT)

• Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure).

• Specific target organ toxicity - repeated exposure

May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

SECTION 12: Ecological information

12.1 Toxicity

acc. to 1272/2008/EC: Shall not be classified as hazardous to the aquatic environment.

Water hazard class - WHC (Wassergefährdungsklasse) (WGK; Germany): 2 (hazardous to water)

Aquatic toxicity (acute)

Aquatic toxicity (acute) of components of the mixture

Name of substance	CAS No	Endpoint	Value	Species	Exposure time
2,2'-oxydiethanol	111-46-6	LC50	75,200 mg/l	fish	96 hours
2,2'-oxydiethanol	111-46-6	EC50	9,362 mg/l	algae	96 hours
ethane-1,2-diol	107-21-1	LC50	72,860 mg/l	fish	96 hours
ethane-1,2-diol	107-21-1	EC50	>100 mg/l	daphnia magna	48 hours

Aquatic toxicity (chronic)

Aquatic toxicity (chronic) of components of the mixture

Name of substance	CAS No	Endpoint	Value	Species	Exposure time
2,2'-oxydiethanol	111-46-6	EC50	>10,000 mg/l	aquatic invertebrates	24 h

12.2 Persistence and degradability

Data are not available.

Degradability of components of the mixture

Name of substance	CAS No	Process	Degradation rate	Time
ethane-1,2-diol	107-21-1	DOC removal	90 - 100 %	10 d

12.3 Bioaccumulative potential

Data are not available.

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Bioaccumulative potential of components of the mixture

Name of substance	CAS No	BCF	Log KOW	BOD5/COD
2,2'-oxydiethanol	111-46-6	100		
ethane-1,2-diol	107-21-1		-1.36	

12.4 Mobility in soil

Data are not available.

12.5 Results of PBT and vPvB assessment

Data are not available.

12.6 Other adverse effects

Data are not available.

Endocrine disrupting potential

None of the ingredients are listed.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

Waste treatment of containers/packagings

It is a dangerous waste; only packagings which are approved (e.g. acc. to ADR) may be used. Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

Relevant provisions relating to waste

List of wastes

waste code (EU): 08 01 11x waste paint and varnish containing organic solvents or other dangerous substances

Remarks

Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

SECTION 14: Transport information

- 14.1** UN number (not subject to transport regulations)
- 14.2** UN proper shipping name not relevant
- 14.3** Transport hazard class(es)
Class -
- 14.4** Packing group not relevant
- 14.5** Environmental hazards none (non-environmentally hazardous acc. to the dangerous goods regulations)
- 14.6** Special precautions for user
There is no additional information.
- 14.7** Transport in bulk according to Annex II of MARPOL and the IBC Code
The cargo is not intended to be carried in bulk.

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SECTION 15: Regulatory information

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

Relevant provisions of the European Union (EU)

- **Restrictions according to REACH, Annex XVII**

None of the ingredients are listed.

- **List of substances subject to authorisation (REACH, Annex XIV)**

None of the ingredients are listed.

- **Limitation of emissions of volatile organic compounds due to the use of organic solvents in certain paints and varnishes and vehicle refinishing products (2004/42/EC, Deco-Paint Directive)**

VOC content Not determined

- **Directive on industrial emissions (VOCs, 2010/75/EU)**

VOC content Not determined

- **Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS) - Annex II**

None of the ingredients are listed.

- **Regulation 166/2006/EC concerning the establishment of a European Pollutant Release and Transfer Register (PRTR)**

None of the ingredients are listed.

- **Directive 2000/60/EC establishing a framework for Community action in the field of water policy (WFD)**

None of the ingredients are listed.

National regulations (Germany)

- **Administrative Regulation on Substances Hazardous to Water (VwVwS)**

Wassergefährdungsklasse (WGK): 2 (hazardous to water) - classification acc. to annex 3 (VwVwS)

- **Technical instructions on air quality control (Germany)**

Number	Group of substances	Class	Conc.	Mass flow	Mass concentration	Notation
5.2.5	organic substances		≥ 25 Gew.- %	0.5 kg/h	50 mg/m ³	3)

Notation

3) A total mass flow of 0.50 kg/h or a total mass concentration of 50 mg/m³, each of which to be indicated as total carbon, shall not be exceeded (except organic particulate matter)

- **Storage of hazardous substances in non-stationary containers (TRGS 510) (Germany)**

Storage class (LGK): 12 (non-combustible liquids)

National regulations (Switzerland)

- **Ordinance on the incentive tax on volatile organic compounds (VOCV)**

VOC content (object of taxation):

15.2 Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

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SECTION 16: Other information

16.1 Changes compared to the previous version

- Complete revision of the SDS with respect to the RL (EG) No. 1972/2008 (CLP).

16.2 Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
Acute Tox.	acute toxicity
ADR	Accord européen relatif au transport international des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
ATE	Acute Toxicity Estimate
BCF	BioConcentration Factor
BOD	Biochemical Oxygen Demand
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
CMR	Carcinogenic, Mutagenic or toxic for Reproduction
COD	chemical oxygen demand
DMEL	Derived Minimal Effect Level
DNEL	Derived No-Effect Level
EC No	The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union)
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
LGK	Lagerklasse (storage class according to TRGS 510, Germany)
log KOW	n-octanol/water
MARPOL	International Convention for the Prevention of Pollution from Ships (abbr. of "Marine Pollutant")
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration
ppm	parts per million
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
STOT RE	specific target organ toxicity - repeated exposure
TRGS	Technische Regeln für Gefahrstoffe (technical rules for hazardous substances, Germany)
TRGS 900	Arbeitsplatzgrenzwerte (TRGS 900)
VOC	Volatile Organic Compounds
vPvB	very Persistent and very Bioaccumulative

16.3 Key literature references and sources for data

- Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU
- Regulation (EC) No. 1272/2008 (CLP, EU GHS)

16.4 Classification procedure

Physical and chemical properties: The classification is based on tested mixture.

Health hazards/environmental hazards: The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

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16.5

List of relevant phrases (code and full text as stated in chapter 2 and 3)

Code	Text
H302	harmful if swallowed
H332	harmful if inhaled
H373	may cause damage to organs through prolonged or repeated exposure

16.6

Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.