

Safety Data Sheet

Efka® FA 4644 AN

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(30631603/SDS_GEN_US/EN)

1. Identification

Product identifier used on the label

Efka® FA 4644 AN

Recommended use of the chemical and restriction on use

Recommended use*: wetting agent, Coating raw material for industrial applications, additives for inks, varnishes or coatings

Recommended use*: Chemical; industrial chemicals

Unsuitable for use: Uses other than recommended

* The "Recommended use" identified for this product is provided solely to comply with a Federal requirement and is not part of the seller's published specification. The terms of this Safety Data Sheet (SDS) do not create or infer any warranty, express or implied, including by incorporation into or reference in the seller's sales agreement.

Details of the supplier of the safety data sheet

Company:

BASF CORPORATION
100 Park Avenue
Florham Park, NJ 07932, USA

Telephone: +1 973 245-6000

Emergency telephone number

24 Hour Emergency Response Information

CHEMTREC: 1-800-424-9300

BASF HOTLINE: 1-800-832-HELP (4357)

Other means of identification

Chemical family: additives, organic solvent

2. Hazards Identification

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Classification of the product

Asp. Tox.	1	Aspiration hazard
Flam. Liq.	3	Flammable liquids
Acute Tox.	4 (oral)	Acute toxicity
Skin Corr./Irrit.	2	Skin corrosion/irritation

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Eye Dam./Irrit.	2A	Serious eye damage/eye irritation
Resp. Sens.	1	Respiratory sensitization
Skin Sens.	1A	Skin sensitization
STOT SE	3 (irritating to respiratory system)	Specific target organ toxicity — single exposure
STOT RE	2	Specific target organ toxicity — repeated exposure
Aquatic Acute	1	Hazardous to the aquatic environment - acute
Aquatic Chronic	1	Hazardous to the aquatic environment - chronic

Label elements

Pictogram:



Signal Word:

Danger

Hazard Statement:

H226	Flammable liquid and vapour.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H302	Harmful if swallowed.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317	May cause an allergic skin reaction.
H304	May be fatal if swallowed and enters airways.
H335	May cause respiratory irritation.
H373	May cause damage to organs (Digestive organs, Thymus gland, Liver, Kidney) through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

Precautionary Statements (Prevention):

P280	Wear protective gloves and eye protection or face protection.
P273	Avoid release to the environment.
P260	Do not breathe dust/gas/mist/vapours.
P271	Use only outdoors or in a well-ventilated area.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280	Wear eye protection.
P243	Take action to prevent static discharges.
P284	In case of inadequate ventilation wear respiratory protection.
P241	Use explosion-proof electrical, ventilating and lighting equipment.
P272	Contaminated work clothing should not be allowed out of the workplace.
P264	Wash contaminated body parts thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P242	Use only non-sparking tools.
P240	Ground and bond container and receiving equipment.

Precautionary Statements (Response):

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P312	Call a POISON CENTER or physician if you feel unwell.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P314	Get medical advice/attention if you feel unwell.
P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER or physician.
P303 + P361 + P353	IF ON SKIN (or hair): Remove or Take off immediately all contaminated clothing. Rinse skin with water or shower.
P330	Rinse mouth
P391	Collect spillage.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P332 + P313	If skin irritation occurs: Get medical attention.
P331	Do NOT induce vomiting.
P370 + P378	In case of fire: Use foam or dry powder for extinction.

Precautionary Statements (Storage):

P403 + P235	Store in a well-ventilated place. Keep cool.
P233	Keep container tightly closed.
P405	Store locked up.

Precautionary Statements (Disposal):

P501	Dispose of contents/container in accordance with local regulations.
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Hazards not otherwise classified

No specific dangers known, if the regulations/notes for storage and handling are considered.

3. Composition / Information on Ingredients

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Fatty acids, tall-oil, esters with polyethylene glycol mono(hydrogen maleate), compds. with amides from diethylenetriamine and tall-oil fatty acids

CAS Number: 222716-38-3

Content (W/W): ≥ 45.0 - $< 55.0\%$

Synonym: No data available.

Xylene

CAS Number: 1330-20-7

Content (W/W): ≥ 30.0 - $\leq 50.0\%$

Synonym: No data available.

n-butanol

CAS Number: 71-36-3

Content (W/W): ≥ 3.0 - $< 5.0\%$

Synonym: 1-Butanol; n-Butanol

maleic acid

CAS Number: 110-16-7

Content (W/W): ≥ 0.1 - $< 0.5\%$

Synonym: 1,2-Ethylenedicarboxylic acid; Maleic acid

2,2'-iminodi(ethylamine)

CAS Number: 111-40-0

Content (W/W): ≥ 0.2 - $< 0.3\%$

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Synonym: Diethylenetriamine

4. First-Aid Measures

Description of first aid measures

General advice:

Immediately remove contaminated clothing.

If inhaled:

If difficulties occur after vapour/aerosol has been inhaled, remove to fresh air and seek medical attention.

If on skin:

Wash affected areas thoroughly with soap and water. Seek medical attention.

If in eyes:

Wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist. Remove contact lenses, if present. If symptoms persist, seek medical advice.

If swallowed:

Immediately rinse mouth and then drink 200 - 300 ml water, do not induce vomiting, seek medical attention. Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions.

Most important symptoms and effects, both acute and delayed

Symptoms: Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11.

Information on: Fatty acids, tall-oil, esters with polyethylene glycol mono(hydrogen maleate), compds. with amides from diethylenetriamine and tall-oil fatty acids

Information on: Xylene

Symptoms: Overexposure may cause:, coma, weakness, lethargy, confusion, dyspnea, nausea, headache, dizziness

Information on: n-butanol

Symptoms: Overexposure may cause:, headache, dizziness, coordination disorder, coma, lacrimation, loss of hearing

Information on: maleic acid

Symptoms: Overexposure may cause:, dyspnea, coughing, dizziness

Information on: 2,2'-iminodi(ethylamine)

Symptoms: Overexposure may cause:, vomiting, dyspnea, nausea, coughing

Indication of any immediate medical attention and special treatment needed

Note to physician

Treatment:

Treat according to symptoms (decontamination, vital functions), no known specific antidote, administer corticosteroid dose aerosol to prevent pulmonary edema.

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5. Fire-Fighting Measures

Extinguishing media

Suitable extinguishing media:
dry powder, foam

Unsuitable extinguishing media for safety reasons:
No data available.

Special hazards arising from the substance or mixture

Hazards during fire-fighting:
harmful vapours

Evolution of fumes/fog. The substances/groups of substances mentioned can be released in case of fire.

Advice for fire-fighters

Protective equipment for fire-fighting:
Wear a self-contained breathing apparatus.

Further information:

The degree of risk is governed by the burning substance and the fire conditions. Contaminated extinguishing water must be disposed of in accordance with official regulations.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Use personal protective clothing. Breathing protection required.

Can release flammable vapours. Wind direction should be noted. Avoid all sources of ignition: heat, sparks, open flame. Use antistatic tools.

Environmental precautions

Contain contaminated water/firefighting water. Do not discharge into drains/surface waters/groundwater.

Methods and material for containment and cleaning up

For large amounts: Pump off product.

For residues: Pick up with suitable absorbent material. Dispose of absorbed material in accordance with regulations.

7. Handling and Storage

Precautions for safe handling

Ensure thorough ventilation of stores and work areas.

Protection against fire and explosion:

Sources of ignition should be kept well clear. Take precautionary measures against static discharges. If delivered in plastic packing, highest permissible emptying temperature is 5 Kelvin below the flash point.

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Conditions for safe storage, including any incompatibilities

Further information on storage conditions: Keep container tightly closed and in a cool place.

8. Exposure Controls/Personal Protection

Components with occupational exposure limits

n-butanol	ACGIH, US: OSHA Z1:	TWA value 20 ppm ; PEL 100 ppm 300 mg/m3 ;
2,2'-iminodi(ethylamine)	ACGIH, US: ACGIH, US: ACGIH, US:	TWA value 1 ppm ; Skin Designation ; Danger of cutaneous absorption Skin Designation ; Danger of cutaneous absorption
Xylene	ACGIH, US: ACGIH, US: OSHA Z1:	TWA value 100 ppm ; STEL value 150 ppm ; PEL 100 ppm 435 mg/m3 ;

Advice on system design:

Provide local exhaust ventilation to control vapours/mists.

Personal protective equipment

Respiratory protection:

Wear a NIOSH-certified (or equivalent) organic vapour/particulate respirator.

Hand protection:

Chemical resistant protective gloves

Eye protection:

Tightly fitting safety goggles (chemical goggles). Wear face shield if splashing hazard exists.

Body protection:

Impermeable protective clothing

General safety and hygiene measures:

Handle in accordance with good industrial hygiene and safety practice.

9. Physical and Chemical Properties

Form:	liquid
Odour:	No data available.
Odour threshold:	not determined
Colour:	yellowish
pH value:	not applicable
Freezing point:	not determined
Melting point:	not determined

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onset of boiling:	approx. 115 °C The statements are based on the properties of the individual components.	
Flash point:	31 °C	(ISO 2719, closed cup)
Flammability:	Flammable.	
Lower explosion limit:	1.1 %(V)	
Upper explosion limit:	7.0 %(V)	
Autoignition:	not determined	
Vapour pressure:	6.7 hPa (20 °C)	
Density:	0.940 g/cm ³ (20 °C)	
Relative density:	0.940 (20 °C)	
Vapour density:	not determined	
Partitioning coefficient n-octanol/water (log Pow):	Study does not need to be conducted.	
Self-ignition temperature:	not self-igniting 371 °C	
Thermal decomposition:	140 - 190 °C, 17 kJ/kg (DSC (DIN 51007))	
Viscosity, dynamic:	22.5 mPa.s (20 °C)	
Particle size:	The substance / product is marketed or used in a non solid or granular form.	
Solubility in water:	slightly soluble	
Evaporation rate:	not determined	

10. Stability and Reactivity

Reactivity

No hazardous reactions if stored and handled as prescribed/indicated.

Oxidizing properties:
not fire-propagating

Chemical stability

The product is chemically stable.

Possibility of hazardous reactions

No hazardous reactions when stored and handled according to instructions.
The product is chemically stable.

Conditions to avoid

Avoid excessive temperatures.

Incompatible materials

strong oxidizing agents, strong bases, strong acids

Hazardous decomposition products

Decomposition products:

Hazardous decomposition products: No hazardous decomposition products if stored and handled as prescribed/indicated.

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Thermal decomposition:
140 - 190 °C (DSC (DIN 51007))

11. Toxicological information

Primary routes of exposure

Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

Acute Toxicity/Effects

Acute toxicity

Assessment of acute toxicity: Harmful if swallowed. Of low toxicity after short-term skin contact. Of low toxicity after short-term inhalation. The product has not been tested. The statement has been derived from the properties of the individual components.

Oral

Type of value: LD50

Species: rat

Value: 1,000 - 2,000 mg/kg (OECD Guideline 423)

The product has not been tested. The statement has been derived from the properties of the individual components.

Inhalation

Type of value: LC50

Species: rat

Value: > 20 mg/l (OECD Guideline 403)

Exposure time: 4 h

Determined for vapor The product has not been tested. The statement has been derived from the properties of the individual components.

Dermal

Type of value: LD50

Species: rabbit

Value: > 5,000 mg/kg (OECD Guideline 402)

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Irritation / corrosion

Assessment of irritating effects: Skin contact causes irritation. Contact may result in eye irritation. The product has not been tested. The statement has been derived from the properties of the individual components.

Skin

Species: In vitro assay

Result: Irritant.

Method: OECD Guideline 439

Eye

Species: In vitro assay

Result: Irritant.

Method: OECD Guideline 492

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Sensitization

Assessment of sensitization: May cause allergic respiratory reaction. May cause allergic skin reaction. The product has not been tested. The statement has been derived from the properties of the individual components.

Aspiration Hazard

Aspiration hazard

Chronic Toxicity/Effects

Repeated dose toxicity

Assessment of repeated dose toxicity: Repeated oral exposure may affect certain organs. The product has not been tested. The statement has been derived from the properties of the individual components.

Genetic toxicity

Assessment of mutagenicity: Most of the results from the available studies show no evidence of a mutagenic effect. The product has not been tested. The statement has been derived from the properties of the individual components.

Carcinogenicity

Assessment of carcinogenicity: The whole of the information assessable provides no indication of a carcinogenic effect. The product has not been tested. The statement has been derived from the properties of the individual components.

Reproductive toxicity

Assessment of reproduction toxicity: The results of animal studies gave no indication of a fertility impairing effect. The product has not been tested. The statement has been derived from the properties of the individual components.

Teratogenicity

Assessment of teratogenicity: No data available.

12. Ecological Information

Toxicity

Aquatic toxicity

Assessment of aquatic toxicity:

Acutely toxic for aquatic organisms. The product has not been tested. The statement has been derived from the properties of the individual components.

Toxicity to fish

LC50 (96 h) > 0.1 - 1 mg/l, Fish (OECD Guideline 203)

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Aquatic invertebrates

EC50 (48 h) > 0.1 - 1 mg/l, daphnia (OECD Guideline 202, part 1)

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Aquatic plants

EC50 (72 h) > 0.1 - 1 mg/l (growth rate), Chlorella fusca (OECD Guideline 201)

The product has not been tested. The statement has been derived from the structure of the product.

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Chronic toxicity to fish

No data available.

Chronic toxicity to aquatic invertebrates

No data available.

Microorganisms/Effect on activated sludge

Toxicity to microorganisms

OECD Guideline 209 activated sludge/EC20 (3 h): > 0.1 - 1 mg/l

Depending on local conditions and existing concentrations, disturbances in the biodegradation process of activated sludge are possible. The product has not been tested. The statement has been derived from the structure of the product.

Persistence and degradability

Assessment biodegradation and elimination (H₂O)

Not readily biodegradable (by OECD criteria).

Additional information

Other ecotoxicological advice:

Do not discharge product into the environment without control.

13. Disposal considerations

Waste disposal of substance:

Dispose of in accordance with national, state and local regulations.

Container disposal:

Uncontaminated packaging can be re-used. Packs that cannot be cleaned should be disposed of in the same manner as the contents.

WARNING: Empty containers may still contain hazardous residue.

RCRA:

This product may meet the Criteria for a D001 Waste (Characteristic of ignitability). Test prior to disposal.

14. Transport Information

Land transport

USDOT

Hazard class:	3
Packing group:	III
ID number:	UN 1866
Hazard label:	3, EHSM
Proper shipping name:	RESIN SOLUTION

Sea transport

IMDG

Hazard class:	3
Packing group:	III
ID number:	UN 1866
Hazard label:	3, EHSM
Marine pollutant:	YES

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Proper shipping name: RESIN SOLUTION (contains XYLENE, TALLOIL FATTY ACIDS, DERIVATIVE)

Air transport

IATA/ICAO

Hazard class: 3
Packing group: III
ID number: UN 1866
Hazard label: 3
Proper shipping name: RESIN SOLUTION

15. Regulatory Information

Federal Regulations

Registration status:

Chemical TSCA, US released / listed

EPCRA 311/312 (Hazard categories): Refer to SDS section 2 for GHS hazard classes applicable for this product.

EPCRA 313:

<u>CAS Number</u>	<u>Chemical name</u>
71-36-3	n-butanol
1330-20-7	Xylene
100-41-4	ethylbenzene

<u>CERCLA RQ</u>	<u>CAS Number</u>	<u>Chemical name</u>
100 LBS	1330-20-7	Xylene

State regulations

<u>State RTK</u>	<u>CAS Number</u>	<u>Chemical name</u>
PA	Trade Secret	Proprietary Solvent
	71-36-3	n-butanol
	100-41-4	ethylbenzene
	1330-20-7	Xylene
NJ	Trade Secret	Proprietary Solvent
	71-36-3	n-butanol
	100-41-4	ethylbenzene
	1330-20-7	Xylene
	108-88-3	Toluene

Safe Drinking Water & Toxic Enforcement Act, CA Prop. 65:

WARNING: This product can expose you to chemicals including BENZENE, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, go to www.P65Warnings.ca.gov.

NFPA Hazard codes:

Health: 2 Fire: 3 Reactivity: 0 Special:

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16. Other Information

SDS Prepared by:

BASF NA Product Regulations

SDS Prepared on: 2021/08/03

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END OF DATA SHEET