Safety Data Sheet
according to Regulation (EC) No. 1907/2006 (REACH)
according to Regulation (EU) 2020/878

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

1.1. **Product identifier**

Article No. (manufacturer/supplier): 6 00012 00000
Trade name/designation: epple dilution 12
UFI: 9580-80AT-E00E-PFFT

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

Relevant identified uses:
Product for cleaning or diluting sealants or adhesives.

1.3. **Details of the supplier of the safety data sheet**

supplier (manufacturer/importer/downstream user/distributor)

E. Epple & Co. GmbH
Hertzstr. 8
71083 Herrenberg

Telephone: +49 7032 / 9771-17
Telefax: +49 7032 / 9771-60
www.epple-chemie.de

Department responsible for information:
laboratory
E-mail (competent person): labor@epple-chemie.de

1.4. **Emergency telephone number**
Information center against poisoning Bonn: +49 (0) 228 / 19 240 (Advice in German)

SECTION 2: Hazards identification

2.1. **Classification of the substance or mixture**

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

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

Flam. Liq. 2 / H225	Flammable liquids	Highly flammable liquid and vapour.
STOT SE 3 / H336	STOT-single exposure	May cause drowsiness or dizziness.
Asp. Tox. 1 / H304	Aspiration hazard	May be fatal if swallowed and enters airways.
Aquatic Chronic 2 / H411	Hazardous to the aquatic environment	Toxic to aquatic life with long lasting effects.

2.2. **Label elements** *

The product is classified and labelled according to EC directives or corresponding national laws.

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

Hazard pictograms

Danger

Hazard statements

H225	Highly flammable liquid and vapour.
H336	May cause drowsiness or dizziness.
H304	May be fatal if swallowed and enters airways.
H411	Toxic to aquatic life with long lasting effects.

Precautionary statements

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261	Avoid breathing vapours.
P273	Avoid release to the environment.
P280	Wear protective gloves.
P331	Do NOT induce vomiting.
P370 + P378	In case of fire: Use extinguishing powder or sand to extinguish.
P501	Dispose of contents / container to a certified waste management company.

Hazard components for labelling
hydrocarbons, C7-C9, n-alkanes, iso-alkanes, cyclene

Supplemental hazard information
not applicable

2.3. **Other hazards**

No information available.

SECTION 3: Composition/information on ingredients

3.2. **Mixtures**

Description Solvents/Thinner

Hazardous ingredients

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

EC No. CAS No. Index No.	REACH No. Designation classification: // Remark	weight-%
920-750-0	01-2119473851-33 hydrocarbons, C7-C9, n-alkanes, iso-alkanes, cyclene STOT SE 3 H336 / Asp. Tox. 1 H304 / Aquatic Chronic 2 H411 / Flam. Liq. 2 H225	74,9 - 100
204-658-1 123-86-4 607-025-00-1	01-2119485493-29 n-butyl acetate Flam. Liq. 3 H226 / STOT SE 3 H336 / EUH066	2,4 - 9,9

Additional information
Full text of classification: see section 16

SECTION 4: First aid measures

4.1. **Description of first aid measures**

General information

In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness give nothing by mouth, place in recovery position and seek medical advice.

In case of inhalation
Remove casualty to fresh air and keep warm and at rest. In case of irregular breathing or respiratory arrest provide artificial respiration.

Following skin contact
Take off immediately all contaminated clothing. After contact with skin, wash immediately with plenty of water and soap. Do not use solvents or thinners.

After eye contact
Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical advice immediately.

Following ingestion
If swallowed, rinse mouth with water (only if the person is conscious). Seek medical advice immediately. Keep victim calm. Do NOT induce vomiting.

4.2. **Most important symptoms and effects, both acute and delayed**
In all cases of doubt, or when symptoms persist, seek medical advice.

4.3. **Indication of any immediate medical attention and special treatment needed**
First Aid, decontamination, treatment of symptoms.

SECTION 5: Firefighting measures

5.1. **Extinguishing media**

Suitable extinguishing media
alcohol resistant foam, carbon dioxide, Powder, spray mist, (water)

Unsuitable extinguishing media
strong water jet

5.2. **Special hazards arising from the substance or mixture**
Dense black smoke occurs during fire. Inhaling hazardous decomposing products can cause serious health damage.

5.3. **Advice for firefighters**
Provide a conveniently located respiratory protective device. Do not allow water used to extinguish fire to enter drains, ground or waterways. Cool closed containers that are near the source of the fire.

SECTION 6: Accidental release measures

6.1. **Personal precautions, protective equipment and emergency procedures**

Keep away from sources of ignition. Ventilate affected area. Do not breathe vapours.

6.2. **Environmental precautions**
Do not allow to enter into surface water or drains. If the product contaminates lakes, rivers or sewages, inform competent authorities in accordance with local regulations.

6.3. **Methods and material for containment and cleaning up**
Isolate leaked material using non-flammable absorption agent (e.g. sand, earth, vermiculit, diatomaceous earth) and collect it for disposal in appropriate containers in accordance with the local regulations (see section 13). Clean using cleansing agents. Do not use solvents.

6.4. **Reference to other sections**
Observe protective provisions (see section 7 and 8).

SECTION 7: Handling and storage

7.1. **Precautions for safe handling**

Advices on safe handling

Avoid formation of flammable and explosive vapour concentrations in the air and exceeding the exposure limit values. Only use the material in places where open light, fire and other flammable sources can be kept away. Electrical equipment must be protected meeting the accepted standard. Product may become electrostatically charged. Provide earthing of containers, equipment, pumps and ventilation facilities. Anti-static clothing including shoes are recommended. Floors must be electrically conductive. Keep away from heat sources, sparks and open flames. Use only spark proof tools. Avoid contact with skin, eyes and clothes. Do not inhale dusts, particulates and spray mist when using this preparation. Avoid respiration of swarf. When using do not eat, drink or smoke. Personal protection equipment: refer to section 8. Do not empty containers with pressure - no pressure vessel! Always keep in containers that correspond to the material of the original container. Follow the legal protection and safety regulations.

Further information
Vapours are heavier than air. Vapours form explosive mixtures with air.

7.2. **Conditions for safe storage, including any incompatibilities**

Requirements for storage rooms and vessels
Storage in accordance with the Ordinance on Industrial Safety and Health (BetrSiVO). Keep container tightly closed. Do not empty containers with pressure - no pressure vessel! Smoking is forbidden. Access only for authorised persons. Store carefully closed containers upright to prevent any leaks. Floors must be electrically conductive.

Hints on joint storage
Keep away from strongly acidic and alkaline materials as well as oxidizers.

Further information on storage conditions
Take care of instructions on label. Store in a well-ventilated and dry room at temperatures between 5 °C and 30 °C. Protect from heat and direct sunlight. Keep container tightly closed. Remove all sources of ignition. Smoking is forbidden. Access only for authorised persons. Store carefully closed containers upright to prevent any leaks.

7.3. **Specific end use(s)**
Observe technical data sheet. Observe instructions for use.

SECTION 8: Exposure controls/personal protection

8.1. **Control parameters**
Occupational exposure limit values

n-butyl acetate
Index No. 607-025-00-1 / EC No. 204-658-1 / CAS No. 123-86-4
TWA: 724 mg/m3; 150 ppm
STEL: 966 mg/m3; 200 ppm

Additional information
TWA : Long-term occupational exposure limit value
STEL : short-term occupational exposure limit value
Ceiling : peak limitation

DNEL:

n-butyl acetate
Index No. 607-025-00-1 / EC No. 204-658-1 / CAS No. 123-86-4
DNEL acute dermal, short-term (systemic), Workers: 11 mg/kg
DNEL long-term dermal (systemic), Workers: 11 mg/kg

DNEL acute inhalative (local), Workers: 960 mg/m³
DNEL acute inhalative (systemic), Workers: 960 mg/m³
DNEL long-term inhalative (local), Workers: 480 mg/m³
DNEL long-term inhalative (systemic), Workers: 480 mg/m³

hydrocarbons, C7-C9, n-alkanes, iso-alkanes, cyclene
EC No. 920-750-0
DNEL long-term dermal (systemic), Workers: 773 mg/kg bw/day
DNEL long-term inhalative (systemic), Workers: 2035 mg/m³

PNEC:

n-butyl acetate
Index No. 607-025-00-1 / EC No. 204-658-1 / CAS No. 123-86-4
PNEC aquatic, freshwater: 0,18 mg/L
PNEC aquatic, marine water: 0,018 mg/L
PNEC aquatic, intermittent release: 0,36 mg/L
PNEC sediment, freshwater: 0,981 mg/kg
PNEC sediment, marine water: 0,0981 mg/kg
PNEC, soil: 0,0903 mg/kg
PNEC sewage treatment plant (STP): 35,6 mg/L

8.2. **Exposure controls** *

Provide good ventilation. This can be achieved with local or room suction. If this should not be sufficient to keep aerosol and solvent vapour concentration below the exposure limit values, a suitable respiratory protection must be used.

Personal protection equipment

Respiratory protection
If concentration of solvents is beyond the occupational exposure limit values, approved and suitable respiratory protection must be used. Observe the wear time limits according GefStoffV in combination with the rules for using respiratory protection apparatus (BGR 190). Use only respiratory protection equipment with CE-symbol including four digit test number.
Use combination filters according to EN 14387.
Suitable respiratory protection apparatus: ABEK-P2

Hand protection
For prolonged or repeated handling the following glove material must be used: NBR (Nitrile rubber)
Thickness of the glove material > 0,4 mm ; Breakthrough time: > 480 min.
Observe the instructions and details for use, storage, maintenance and replacement provided by the protective glove manufacturer. Penetration time of glove material depending on intensity and duration of exposure to skin. Recommended glove articles EN ISO 374
Barrier creams can help protecting exposed skin areas. In no case should they be used after contact.

Eye/face protection
Wear eye glasses with side protection according to EN 166.

Body protection
Wear antistatic clothing of natural fibers (cotton) or heat resistant synthetic fibers.

Protective measures
After contact clean skin thoroughly with water and soap or use appropriate cleanser.

Environmental exposure controls
Do not allow to enter into surface water or drains. See section 7. No additional measures necessary.

SECTION 9: Physical and chemical properties

9.1. **Information on basic physical and chemical properties** *

Physical state:	**Liquid**
Appearance:	**Liquid**
Colour:	**translucent**
Odour:	**like Solvents**
Odour threshold:	**not applicable**
Melting point/freezing point:	**-77 °C** Source: n-butyl acetate
Initial boiling point and boiling range:	**90 °C** Source: hydrocarbons, C7-C9, n-alkanes, iso-alkanes, cyclene

Flammability:	**Highly flammable liquid and vapour.**
Lower and upper explosion limit:	
Lower explosion limit:	**0,6 Vol-%** Source: hydrocarbons, C7-C9, n-alkanes, iso-alkanes, cyclene
Upper explosion limit:	**8,5 Vol-%** Source: n-butyl acetate
Flash point:	**-2 °C**
Auto-ignition temperature:	**201 °C** Source: hydrocarbons, C7-C9, n-alkanes, iso-alkanes, cyclene
Decomposition temperature:	**not applicable**
pH at 20 °C:	**not relevant**
Cinematic viscosity (40°C):	**< 20 mm²/s**
Viscosity at 20 °C:	**11 s 4 mm** Method: DIN 53211
Solubility(ies):	
Water solubility at 20 °C:	**insoluble**
Partition coefficient: n-octanol/water:	**see section 12**
Vapour pressure at 20 °C:	**40 mbar** Source: hydrocarbons, C7-C9, n-alkanes, iso-alkanes, cyclene
Density and/or relative density:	
Density at 20 °C:	**0,74 g/cm³**
Relative vapour density:	**not applicable**
particle characteristics:	**not applicable**

9.2. **Other information**

SECTION 10: Stability and reactivity

10.1. **Reactivity**
No information available.

10.2. **Chemical stability**
Stable when applying the recommended regulations for storage and handling. Further information on correct storage: refer to section 7.

10.3. **Possibility of hazardous reactions**
Keep away from strong acids, strong bases and strong oxidizing agents to avoid exothermic reactions.

10.4. **Conditions to avoid**
Hazardous decomposition byproducts may form with exposure to high temperatures.

10.5. **Incompatible materials**
not applicable

10.6. **Hazardous decomposition products**
Hazardous decomposition byproducts may form with exposure to high temperatures, e.g.: carbon dioxide, carbon monoxide, smoke, nitrogen oxides.

SECTION 11: Toxicological information

11.1. **Information on hazard classes as defined in Regulation (EC) No 1272/2008**

Acute toxicity

n-butyl acetate
oral, LD50, Rat: 10760 mg/kg
Method: OECD 423
dermal, LD50, Rabbit: > 14112 mg/kg
Method: OECD 402
inhalative (vapours), LC50, Rat: 23,4 mg/L (4 h)
Method: OECD 403

hydrocarbons, C7-C9, n-alkanes, iso-alkanes, cyclene

oral, LD50, Rat: > 5000 mg/kg
Method: OECD 401
dermal, LD50, Rabbit: > 2800 mg/kg
Method: OECD 402
inhalative (vapours), LC50, Rat: > 23,3 mg/L (4 h)
Method: OECD 403

Skin corrosion/irritation; Serious eye damage/eye irritation

Based on available data, the classification criteria are not met.

Respiratory or skin sensitisation

Based on available data, the classification criteria are not met.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Based on available data, the classification criteria are not met.

STOT-single exposure; STOT-repeated exposure

May cause drowsiness or dizziness.

Aspiration hazard

May be fatal if swallowed and enters airways.

Practical experience/human evidence

Inhaling of solvent components above the MWC-value can lead to health damage, e.g. irritation of the mucous membrane and respiratory organs, as well as damage to the liver, kidneys and the central nerve system. Indications for this are: headache, dizziness, fatigue, amyosthenia, drowsiness, in serious cases: unconsciousness. Solvents may cause some of the aforementioned effects through skin resorption. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and/or absorption through skin. Splashing may cause eye irritation and reversible damage.

Overall assessment on CMR properties

The ingredients in this mixture do not meet the criteria for classification as CMR category 1A or 1B according to CLP.

Remark

There is no information available on the preparation itself .

11.2. **Information on other hazards**

Endocrine disrupting properties
No information available.

SECTION 12: Ecological information

Classification according to Regulation (EC) No 1272/2008 [CLP]
Do not allow to enter into surface water or drains.

12.1. **Toxicity**

n-butyl acetate
Fish toxicity, LC50, Pimephales promelas (fathead minnow): 18 mg/L (96 h)
Method: OECD 203
Daphnia toxicity, EC50, Daphnia magna (Big water flea): 44 mg/L (48 h)
Algae toxicity, EC50:, Desmodesmus subspicatus: 647,7 mg/L (72 h)
Algae toxicity, NOEC:, Desmodesmus subspicatus: 200 mg/L
Fish toxicity, LC50, Leuciscus idus (golden orfe): 71 mg/L (48 h)
Fish toxicity, LC50:, Danio rerio (zebrafish): 62 mg/L (96 h)
Bacterial toxicity:, EC50:, Pseudomonas putida: 115 mg/L (16 h)
Method: DIN 38412 / part 8
Bacterial toxicity:, EC10:, Pseudomonas putida: 959 mg/L (18 h)
Method: DIN 38412 / part 8
Bacterial toxicity:, EC0, Pseudomonas putida: 115 mg/L (16)

hydrocarbons, C7-C9, n-alkanes, iso-alkanes, cyclene
Fish toxicity, LL50, Oncorhynchus mykiss (Rainbow trout): > 13,4 mg/L (96 h)
Daphnia toxicity, EL50, Daphnia magna (Big water flea): 3 mg/L (48 h)
Algae toxicity, NOELR, Pseudokirchneriella subcapitata: 10 mg/L (72 h)
Algae toxicity, EL50, Pseudokirchneriella subcapitata 10 - 30 mg/L (72 h)

Long-term Ecotoxicity

Toxic to aquatic life with long lasting effects.

12.2. **Persistence and degradability**

n-butyl acetate
Biodegradation:: 83 % (28 d); Evaluation Readily biodegradable (according to OECD criteria).
Method: OECD 301D

hydrocarbons, C7-C9, n-alkanes, iso-alkanes, cyclene
Biodegradation:: 98 % (28 d)
The statement is derived from products of similar structure or composition.

12.3. **Bioaccumulative potential**

n-butyl acetate
Partition coefficient: n-octanol/water: 1,81 - 2,3
Method: OECD 117

12.4. **Mobility in soil**
Toxicological data are not available.

12.5. **Results of PBT and vPvB assessment**

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6. **Endocrine disrupting properties**
No information available.

12.7. **Other adverse effects**
No information available.

SECTION 13: Disposal considerations

13.1. **Waste treatment methods**

Appropriate disposal / Product
Recommendation
Do not allow to enter into surface water or drains. This material and its container must be disposed of in a safe way. Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

Observe in addition any national regulations!

List of proposed waste codes/waste designations in accordance with EWC
140603* other solvents and solvent mixtures
*Hazardous waste according to Directive 2008/98/EC (waste framework directive).

Appropriate disposal / Package
Dispose of packaging and contaminated filters at a offical hazardous waste incinerator facility.
Recommendation:
Waste codes / waste designations according to EWC / AVV: 15 01 10*

Non-contaminated packages may be recycled.

SECTION 14: Transport information

14.1. **UN number or ID number**

UN 1993

14.2. **UN proper shipping name**

Land transport (ADR/RID):	Flammable liquid, n.o.s. (hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics)
Sea transport (IMDG):	FLAMMABLE LIQUID, N.O.S. (hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics)
Air transport (ICAO-TI / IATA-DGR):	Flammable liquid, n.o.s. (hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics)

14.3. **Transport hazard class(es)**

3

14.4. **Packing group**

II

14.5. **Environmental hazards**

Land transport (ADR/RID)	DANGEROUS FOR THE ENVIRONMENT
Marine pollutant	p / hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics

14.6. **Special precautions for user**

Transport always in closed, upright and safe containers. Make sure that persons transporting the product know what to do in case of an accident or leakage.
Advices on safe handling: see parts 6 - 8

Further information

Land transport (ADR/RID)

Tunnel restriction code	D/E special prescription 640D

Sea transport (IMDG)

EmS-No.	F-E, S-E

14.7. **Maritime transport in bulk according to IMO instruments**

No transport as bulk according IBC - Code.

SECTION 15: Regulatory information

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

EU legislation

Directive 2010/75/EU on industrial emissions [Industrial Emissions Directive]
VOC-value (in g/L): 735

National regulations

Restrictions of occupation
Observe employment restrictions under the Maternity Protection Directive 92/85/EEC or stricter national regulations, if applicable.

Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC) or stricter national regulations, if applicable.

Further details:

For professional use only. Product is not intended for consumer use.

Substance/product listed in the following inventories:
AICS listed
DSL listed
EHS no information
IECSC listed
KECI listed
MITI listed
NZLoC no information
PICCS listed
TCSI no information
TSCA listet

15.2. **Chemical Safety Assessment**
For the following substances of this mixture a chemical safety assessment has been carried out:

EC No. CAS No.	Designation	REACH No.
920-750-0	hydrocarbons, C7-C9, n-alkanes, iso-alkanes, cyclene	01-2119473851-33
204-658-1 123-86-4	n-butyl acetate	01-2119485493-29

SECTION 16: Other information

Full text of classification in section 3

STOT SE 3 / H336	STOT-single exposure	May cause drowsiness or dizziness.
Asp. Tox. 1 / H304	Aspiration hazard	May be fatal if swallowed and enters airways.
Aquatic Chronic 2 / H411	Hazardous to the aquatic environment	Toxic to aquatic life with long lasting effects.
Flam. Liq. 2 / H225	Flammable liquids	Highly flammable liquid and vapour.
Flam. Liq. 3 / H226	Flammable liquids	Flammable liquid and vapour.

Classification procedure

Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

Flam. Liq. 2	Flammable liquids	On basis of test data.
STOT SE 3	STOT-single exposure	Calculation method.
Asp. Tox. 1	Aspiration hazard	Calculation method.
Aquatic Chronic 2	Hazardous to the aquatic environment	Calculation method.

Abbreviations and acronyms

ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
OEL	Occupational Exposure Limit Value
BLV	Biological Limit Value
CAS	Chemical Abstracts Service
CLP	Classification, Labelling and Packaging
CMR	Carcinogenic, Mutagenic and Reprotoxic
DIN	German Institute for Standardization / German industrial standard
DNEL	Derived No-Effect Level
EAKV	European Waste Catalogue Directive
EC	Effective Concentration
EC	European Community
EN	European Standard
IATA-DGR	International Air Transport Association – Dangerous Goods Regulations
IBC Code	International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
ICAO-TI	International Civil Aviation Organization Technical Instructions for the Safe Transport of Dangerous Goods by Air
IMDG Code	International Maritime Code for Dangerous Goods
ISO	International Organization for Standardization
LC	Lethal Concentration
LD	Lethal Dose
MARPOL	Maritime Pollution: The International Convention for the Prevention of Pollution from Ships
OECD	Organisation for Economic Cooperation and Development
PBT	persistent, bioaccumulative, toxic
PNEC	Predicted No Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
UN	United Nations
VOC	Volatile Organic Compounds
vPvB	very persistent and very bioaccumulative

Further information

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

The information supplied on this safety data sheet complies with our current level of knowledge as well as with national and EU regulations. Without written approval, the product must not be used for purposes different from those mentioned in section 1. It is always the user's duty to take any necessary measures for meeting the requirements laid down by local rules and regulations. The details in this safety data sheet describe the safety requirements of our product and are not to be regarded as guaranteed attributes of the product.

* Data changed compared with the previous version