

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH) and Regulation (EU) No. 2015/830



Developer AR 600-546

Material number AR 600-546

Revision date: 19/1/2018
Version: 5

Language: en-GB,IE

Date of print: 25/4/2018
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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name: Developer AR 600-546

CAS-Number: 628-63-7

EC-number: 211-047-3

EU index number: 607-130-00-2

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

General use: Intermediate for electronic industry

1.3 Details of the supplier of the safety data sheet

Company name: Allresist
Gesellschaft für chemische Produkte zur Mikrostrukturierung mbH
Street/POB-No.: Am Biotop 14
Postal Code, city: 15344 Strausberg
Germany
WWW: www.allresist.de
E-mail: info@allresist.de
Telephone: +49 (0)33 41-35 93-0
Telefax: +49 (0)33 41-35 93-29
Dept. responsible for information:
Frau Feldt, Email: doerte.feldt@allresist.de

1.4 Emergency telephone number

Telephone: +49 (0)33 41-35 93-0
Only available during office hours.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to EC regulation 1272/2008 (CLP)

Flam. Liq. 3; H226 Flammable liquid and vapour.
(EUH066) Repeated exposure may cause skin dryness or cracking.

2.2 Label elements

Labelling (CLP)



Signal word: **Warning**

Hazard statements: H226 Flammable liquid and vapour.
EUH066 Repeated exposure may cause skin dryness or cracking.

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Precautionary statements: P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P403+P235 Store in a well-ventilated place. Keep cool.

Special labelling

Text for labelling: Contains Pentyl acetate.

2.3 Other hazards

Potentially explosive mixtures may form if adequate ventilation is not provided.
Inhaling can lead to irritations of the respiratory tract and mucous membrane.
Higher doses may lead to a narcotic effect.

Results of PBT and vPvB assessment:
No data available

SECTION 3: Composition / information on ingredients

3.1 Substances

Chemical characterisation: C7 H14 O2 = CH3-COO-(CH2)4-CH3
Amyl acetate
CAS-Number: 628-63-7
EC-number: 211-047-3
EU index number: 607-130-00-2
RTECS-Number: AJ1925000

SECTION 4: First aid measures

4.1 Description of first aid measures

General information: IF exposed or concerned: Get medical advice/attention.
If medical advice is needed, have product container or label at hand. First aider: Pay attention to self-protection!
In case of inhalation: Provide fresh air. In case of irregular breathing or respiratory arrest provide artificial respiration. Seek medical attention.
Following skin contact: After contact with skin, wash immediately with plenty of water. Immediately remove any contaminated clothing, shoes or stockings. Immediately get medical attention.
After eye contact: Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Remove contact lenses, if present and easy to do. Continue rinsing. Subsequently consult an ophthalmologist.
After swallowing: As a laxative, affected person should drink sodium sulfate (1 tablespoon in 1/4 L water). Attention in case of vomiting and stomach pumping: danger of aspiration. Accelerate intestinal transit. Castor oil and milk are contraindicated. Seek medical attention.

4.2 Most important symptoms and effects, both acute and delayed

Inhaling can lead to irritations of the respiratory tract and mucous membrane.
Repeated exposure may cause skin dryness or cracking.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

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SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media:

Foam, extinguishing powder, carbon dioxide

5.2 Special hazards arising from the substance or mixture

Flammable liquid and vapour.

With air, vapours form potentially explosive mixtures, which are heavier than air.

Vapours may proceed on the ground over great distances and cause fire and backflashes.

In case of fire may be liberated: Carbon monoxide and carbon dioxide.

5.3 Advice for firefighters

Special protective equipment for firefighters:

Wear self-contained positive pressure breathing apparatus and full firefighting protective clothing.

Additional information:

Hazchem-Code: •3Y

Heating will lead to pressure increase: Danger of bursting and explosion. Keep containers cool with water spray.

In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.

Do not allow fire water to penetrate into surface or ground water.

Fire residuals and contaminated extinguishing water must be disposed of in accordance with the regulations of the local authorities.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid contact with the substance. Immediately remove any contaminated clothing, shoes or stockings. Wear appropriate protective equipment.

Provide adequate ventilation. Do not breathe vapour/aerosol.

Eliminate all ignition sources if safe to do so. If possible, eliminate leakage.

Keep unprotected people away. Cordon off downwind area at risk and warn inhabitants.

6.2 Environmental precautions

Do not allow to enter into ground-water, surface water or drains. Danger of explosion!

In case of release, notify competent authorities.

6.3 Methods and material for containment and cleaning up

Soak up with absorbent materials such as sand, siliceous earth, acid- or universal binder.

Store in special closed containers and dispose of according to ordinance.

Final cleaning. Beware of reignition.

In case of greater quantities: Collect mechanically (use only explosion-proof equipment when pumping out).

Additional information:

Use explosion-proof equipment and non-sparking tools/utensils.

6.4 Reference to other sections

Refer additionally to section 8 and 13.

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SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advices on safe handling: Provide adequate ventilation, and local exhaust as needed. Do not breathe vapour/aerosol. Guarantee sufficient ventilation during and after use, in order to prevent vapour accumulation.
Do not get in eyes, on skin, or on clothing. Wear appropriate protective equipment.
Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling.
Take off immediately all contaminated clothing and wash it before reuse.
When handling large quantities, supply emergency spray.

Precautions against fire and explosion:

Keep away from sources of ignition - No smoking.
Take precautionary measures against static discharge.
Use only explosion-protected equipment/instruments. Do not weld.
In partially filled containers explosive mixtures may form.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storerooms and containers:

Keep container tightly closed in a cool, well-ventilated place.
Keep container dry. Keep only in the original container.
Protect from heat and direct sunlight.
Unsuitable materials: various plastics, rubber.
Storage temperature: 10 - 22 °C.

Hints on joint storage:

Do not store together with alkali metals, acids, strong oxidizing agents or nitrates.
Do not store together with food.

7.3 Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values:

| Type | Limit value |
|---------------------|---------------------------------|
| Europe: IOELV: STEL | 540 mg/m ³ ; 100 ppm |
| Europe: IOELV: TWA | 270 mg/m ³ ; 50 ppm |
| Ireland: 15 minutes | 540 mg/m ³ ; 100 ppm |
| Ireland: 8 hours | 270 mg/m ³ ; 50 ppm |

8.2 Exposure controls

Provide for good ventilation or exhaust system or work with completely self-contained equipment. Explosion protection required.

Personal protection equipment

Occupational exposure controls

Respiratory protection: When aerosols and vapours form: Use appropriate respiratory protection.
Respiratory protection must be worn whenever the WEL levels have been exceeded.
Use filter type A (= against vapours of organic substances) according to EN 14387.

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Hand protection: Protective gloves according to EN 374.
Glove material:
During splash contact: Butyl caoutchouc (butyl rubber) - Layer thickness: 0.70 mm.
Breakthrough time: >240 min
Observe glove manufacturer's instructions concerning penetrability and breakthrough time.

Eye protection: Tightly sealed goggles according to EN 166

Body protection: Flame-resistant antistatic protective clothing

General protection and hygiene measures:
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not breathe vapour/aerosol. Do not get in eyes, on skin, or on clothing. Contaminated work clothing should not be allowed out of the workplace. When using do not eat or drink. Wash hands thoroughly after handling. When handling large quantities, supply emergency spray.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance: Physical state at 20 °C and 101.3 kPa: liquid
Colour: colourless

Odour: characteristic
Odour threshold: No data available

pH value: No data available

Melting point/freezing point: -71 °C
Initial boiling point and boiling range: 149 °C
Flash point/flash point range: 41 °C (c.c.)
Evaporation rate: No data available

Flammability: Flammable liquid and vapour.
Explosion limits: LEL (Lower Explosion Limit): 1.10 Vol-%
UEL (Upper Explosive Limit): 7.50 Vol-%

Vapour pressure: at 20 °C: 6 hPa
Vapour density: No data available
Density: at 20 °C: 0.87 g/mL
Water solubility: at 20 °C: 10 g/L
Partition coefficient: n-octanol/water: 2.3 log P(o/w)
Based on the n-octanol/water partition coefficient significant accumulation in organisms is not expected.

Auto-ignition temperature: No data available
Decomposition temperature: No data available
Viscosity, kinematic: No data available

Explosive properties: Vapours can form explosive mixtures with air.
Oxidizing characteristics: No data available

9.2 Other information

Ignition temperature: 350 °C
Molecular weight: 130.19 g/mol

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SECTION 10: Stability and reactivity

10.1 Reactivity

Flammable liquid and vapour.
Vapours can form explosive mixtures with air.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Heating will lead to pressure increase: Danger of bursting and explosion.

10.4 Conditions to avoid

Keep away from heat sources, sparks and open flames.
Protect against direct sunlight.

10.5 Incompatible materials

Alkali metals, acids, strong oxidizing agents, nitrates
Unsuitable materials: various plastics, rubber.

10.6 Hazardous decomposition products

Thermal decomposition: no data available
No data available

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity: LD50 Rat, oral: > 1600 mg/kg

Toxicological effects: Acute toxicity (oral): Based on available data, the classification criteria are not met.
Symptoms: nausea, vomiting, diarrhoea
Acute toxicity (dermal): Lack of data.
Acute toxicity (inhalative): Based on available data, the classification criteria are not met.
Symptoms: Mucous membrane irritation, cough, shortage of breath
Skin corrosion/irritation: Lack of data.
Serious eye damage/irritation: Lack of data.
Sensitisation to the respiratory tract: Lack of data.
Skin sensitisation: Lack of data.
Germ cell mutagenicity/Genotoxicity: Lack of data.
Carcinogenicity: Lack of data.
Reproductive toxicity: Lack of data.
Effects on or via lactation: Lack of data.
Specific target organ toxicity (single exposure): Based on available data, the classification criteria are not met.
Specific target organ toxicity (repeated exposure): Based on available data, the classification criteria are not met.
Aspiration hazard: Based on available data, the classification criteria are not met.

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Symptoms

After absorption of large quantities: narcosis, liver damage.
Possible effects on contact with substance: headache, amyosthenia, dizziness, ataxia (coordination impairment), confusion, cardiac arrhythmias, coma.
After contact with skin: Repeated exposure may cause skin dryness or cracking.
After eye contact: mild irritant

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity: Algae toxicity: EC0: 120 mg/L
Daphnia toxicity: EC0 Daphnia magna (Big water flea): 180 mg/L
Fish toxicity: LC50: 65 mg/L

12.2 Persistence and degradability

Further details: No data available

12.3 Bioaccumulative potential

Partition coefficient: n-octanol/water:
2.3 log P(o/w)
Based on the n-octanol/water partition coefficient significant accumulation in organisms is not expected.

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

No data available

12.6 Other adverse effects

General information: Do not allow to penetrate into soil, waterbodies or drains. Danger of explosion!

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Waste key number: 14 06 03* = Organic solvents, halogen-free
* = Evidence for disposal must be provided.

Recommendation: Incinerate according to applicable local, state and federal regulations.

Contaminated packaging

Recommendation: Dispose of waste according to applicable legislation. Handle empty containers with care. Incineration may cause explosion.
Handle contaminated packages in the same way as the substance itself.
Non-contaminated packages may be recycled.

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SECTION 14: Transport information

14.1 UN number

ADR/RID, IMDG, IATA-DGR:
UN 1104

14.2 UN proper shipping name

ADR/RID, IMDG, IATA-DGR:
UN 1104, AMYL ACETATES

14.3 Transport hazard class(es)

ADR/RID: Class 3, Code: F1
IMDG: Class 3, Subrisk -
IATA-DGR: Class 3



14.4 Packing group

ADR/RID, IMDG, IATA-DGR:
III

14.5 Environmental hazards

Marine pollutant: no

14.6 Special precautions for user

Land transport (ADR/RID)

Warning board: ADR/RID: Kemmler-number 30, UN number UN 1104
Hazard label: 3
Limited quantities: 5 L
EQ: E1
Contaminated packaging - Instructions: P001 IBC03 LP01 R001
Special provisions for packing together: MP19
Portable tanks - Instructions: T2
Portable tanks - Special provisions: TP1
Tank coding: LGBF
Tunnel restriction code: D/E

Sea transport (IMDG)

EmS: F-E, S-D
Special provisions: -
Limited quantities: 5 L
Excepted quantities: E1
Contaminated packaging - Instructions: P001, LP01
Contaminated packaging - Provisions: -
IBC - Instructions: IBC03
IBC - Provisions: -
Tank instructions - IMO: -
Tank instructions - UN: T2
Tank instructions - Provisions: TP1
Stowage and handling: Category A.
Properties and observations: Colourless liquid with pear- or banana-like odour. normal-AMYLACETAT: flashpoint 25°C c.c. sek.-AMYLACETAT: flashpoint 32°C c.c. Immiscible with water.
Segregation group: none

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Air transport (IATA)

| | |
|---|---|
| Hazard label: | Flamm. liquid |
| Excepted Quantity Code: | E1 |
| Passenger and Cargo Aircraft: Ltd.Qty.: | Pack.Instr. Y344 - Max. Net Qty/Pkg. 10 L |
| Passenger and Cargo Aircraft: | Pack.Instr. 355 - Max. Net Qty/Pkg. 60 L |
| Cargo Aircraft only: | Pack.Instr. 366 - Max. Net Qty/Pkg. 220 L |
| Emergency Response Guide-Code (ERG): | 3L |

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

No data available

SECTION 15: Regulatory information

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

National regulations - Great Britain

Hazchem-Code: •3Y
No data available

National regulations - EC member states

Volatile organic compounds (VOC):
100 % by weight = 870 g/L

Labelling of packaging with <= 125mL content



Signal word: **Warning**

Hazard statements: EUH066 Repeated exposure may cause skin dryness or cracking.
Precautionary statements: P280 Wear protective gloves/protective clothing/eye protection/face protection.

15.2 Chemical Safety Assessment

No data available

SECTION 16: Other information

Further information

Reason of change: Changes in section 2: Labelling (P-phrases: EU, ATP 8)
Date of first version: 4/3/2015

Department issuing data sheet

Contact person: see section 1: Dept. responsible for information

For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).

The information in this data sheet has been established to our best knowledge and was up-to-date at time of revision. It does not represent a guarantee for the properties of the product described in terms of the legal warranty regulations.



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