



SAFETY DATA SHEET

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

Revision date: 23/1/2019
Version: 3
Language: en-GB,IE
Date of print: 28/8/2020

X 600-60/1

Material number 600-60/1

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

1.1 Product identifier

Trade name: X 600-60/1

CAS-Number: 111-65-9

EC-number: 203-892-1

EU index number: 601-009-00-8

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

General use: Intermediate for electronic industry
Reserved for industrial and professional use.

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
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
Department responsible for information:
Frau Dr. Zimmermann, Email: produktion@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. 2; H225	Highly flammable liquid and vapour.
Skin Irrit. 2; H315	Causes skin irritation.
STOT SE 3; H336	May cause drowsiness or dizziness.
Asp. Tox. 1; H304	May be fatal if swallowed and enters airways.
Aquatic Acute 1; H400	Very toxic to aquatic life.
Aquatic Chronic 1; H410	Very toxic to aquatic life with long lasting effects.

2.2 Label elements

Labelling (CLP)



Signal word: **Danger**



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Hazard statements:	H225	Highly flammable liquid and vapour.
	H304	May be fatal if swallowed and enters airways.
	H315	Causes skin irritation.
	H336	May cause drowsiness or dizziness.
	H410	Very 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/spray.
	P273	Avoid release to the environment.
	P280	Wear protective gloves/protective clothing/eye protection.
	P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor.
	P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
	P331	Do NOT induce vomiting.
	P370+P378	In case of fire: Use dry powder, foam or carbon dioxide for extinction.
	P391	Collect spillage.
	P403+P233	Store in a well-ventilated place. Keep container tightly closed.

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. Special danger of slipping by leaking/spilling product.

Results of PBT and vPvB assessment:

No data available

SECTION 3: Composition / information on ingredients

3.1 Substances

Chemical characterisation: C₈ H₁₈ =< 100%

Octane

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RTECS-Number: RG8400000

SECTION 4: First aid measures

4.1 Description of first aid measures

General information:	IF exposed or concerned: Get medical advice/attention. First aider: Pay attention to self-protection!
In case of inhalation:	Move victim to fresh air; if necessary, provide artificial respiration or oxygen. Make sure he/she is warm and comfortable. If victim is at risk of losing consciousness, position and transport on their side. If you feel unwell, seek medical advice.
Following skin contact:	Remove residues with soap and water. Take off immediately all contaminated clothing and wash it before reuse. In case of skin reactions, consult a physician.



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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: Never give anything by mouth to an unconscious person. Rinse mouth immediately and drink plenty of water. Do not induce vomiting. Caution if victim vomits: Risk of aspiration! When swallowed and vomited immediately, aspiration into the lungs may occur resulting in chemical pneumonia or suffocation. Immediately get medical attention.

4.2 Most important symptoms and effects, both acute and delayed

Causes skin irritation. May be fatal if swallowed and enters airways. May cause drowsiness or dizziness. Inhaling can lead to irritations of the respiratory tract and mucous membrane.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

Due to risk of aspiration gastric lavage may only be applied under endotracheal intubation.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media:

Extinguishing powder, foam, carbon dioxide.

Extinguishing media which must not be used for safety reasons:

Full water jet

5.2 Special hazards arising from the substance or mixture

Highly 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: 3YE

Heating will lead to pressure increase: Danger of bursting and explosion. Move undamaged containers from immediate hazard area if it can be done safely. 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.



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SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Eliminate all ignition sources if safe to do so. Avoid contact with the substance. Wear appropriate protective equipment. Keep unprotected people away. Provide adequate ventilation. Do not breathe vapour/aerosol. Take off immediately all contaminated clothing and wash it before reuse. If possible, eliminate leakage. 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

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).

Beware of reignition. Thoroughly clean surrounding area.

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.

Special danger of slipping by leaking/spilling product.

6.4 Reference to other sections

Refer additionally to section 8 and 13.

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. 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. Guarantee sufficient ventilation during and after use, in order to prevent vapour accumulation. When handling large quantities, supply emergency spray.

Precautions against fire and explosion:

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharge. Use explosion-proof electrical/ventilating/lighting equipment. 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. Store containers in upright position. Explosion protection required.

Hints on joint storage:

Do not store together with strong oxidizing agents.
Keep away from food, drink and animal feedingstuffs.

7.3 Specific end use(s)

No information available.



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SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values:

Type	Limit value
Ireland: 8 hours	1450 mg/m ³ ; 300 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 wear filter apparatus type A (= against vapours of organic substances). The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product.

Hand protection: Protective gloves according to EN 374.
During full contact
Glove material: Nitrile rubber - Layer thickness 0.4 mm.
Breakthrough time: >480 min.
During splash contact
Glove material: Nitrile rubber - Layer thickness 0.11 mm.
Breakthrough time: >30 min.

Eye protection: Tightly sealed goggles according to EN 166.

Body protection: Flame retardant, antistatic and chemical resistant protective clothing.

General protection and hygiene measures:

Use only non-sparking tools. Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. Do not breathe vapour/aerosol. Wash hands before breaks and after work. When using do not eat, drink or smoke. Do not get in eyes, on skin, or on clothing. Contaminated work clothing should not be allowed out of the workplace. When handling large quantities, supply emergency spray. Take off immediately all contaminated clothing and wash it before reuse.

Environmental exposure controls

Do not allow to enter into ground-water, surface water or drains.

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



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Melting point/freezing point:	-57 °C
Initial boiling point and boiling range:	125 - 126 °C (1.013 hPa)
Flash point/flash point range:	13 °C (c.c.)
Evaporation rate:	No data available
Flammability:	Highly flammable liquid and vapour.
Explosion limits:	LEL (Lower Explosion Limit): 0.80 Vol-% UEL (Upper Explosive Limit): 6.50 Vol-%
Vapour pressure:	at 20 °C: 14 hPa
Vapour density:	No data available
Density:	at 20 °C: 0.70 g/mL
Water solubility:	at 20 °C: 0.7 mg/L (insoluble)
Partition coefficient: n-octanol/water:	5.18 log P(o/w) (experimental) Based on the n-octanol/water partition coefficient accumulation in organisms is possible.
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
Viscosity, kinematic:	No data available
Explosive properties:	Product is not explosive. On contact with air, potentially explosive mixtures may develop.
Oxidizing characteristics:	none

9.2 Other information

Ignition temperature:	210 °C
Molecular weight	114.23 g/mol

SECTION 10: Stability and reactivity

10.1 Reactivity

Highly 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.
Reacts with strong oxidizing agents.

10.4 Conditions to avoid

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

10.5 Incompatible materials

Various plastics, strong oxidizing agents.



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10.6 Hazardous decomposition products

No hazardous decomposition products when regulations for storage and handling are observed.

Thermal decomposition: No data available

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity: LC50 Rat, inhalative: 118 mg/L/4h (RTECS)
LD50 Rat, oral: > 5000 mg/kg (ECHA, read across)
LD50 Rabbit, dermal: > 2000 mg/kg (ECHA, read across)

Toxicological effects: Acute toxicity (oral): Based on available data, the classification criteria are not met.
Acute toxicity (dermal): Based on available data, the classification criteria are not met.
Acute toxicity (inhalative): Based on available data, the classification criteria are not met.
Skin corrosion/irritation: Skin Irrit. 2; H315 = Causes skin irritation.
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): STOT SE 3; H336 = May cause drowsiness or dizziness.
Specific target organ toxicity (repeated exposure): Lack of data.
Aspiration hazard: Asp. Tox. 1; H304 = May be fatal if swallowed and enters airways.

Symptoms

Prolonged or repeated skin contact may cause removal of natural fat from the skin resulting in dermatitis (skin inflammation). Higher doses may have a narcotic effect. After inhaling misty fog, danger of lung oedema.

After intake of large amounts: apnea, dizziness, unconsciousness, agitation, nausea, vomiting and headache.

After eye contact: Product can cause slight irritation.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity: Very toxic to aquatic life with long lasting effects.

Daphnia toxicity:

EC50 Daphnia magna (Big water flea): 0.38 mg/L/48h (ECOTOX Database)

12.2 Persistence and degradability

Further details: Theoretical oxygen demand (ThOD): 3500 mg/g



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12.3 Bioaccumulative potential

Partition coefficient: n-octanol/water:

5.18 log P(o/w) (experimental)

Based on the n-octanol/water partition coefficient accumulation in organisms is possible.

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 enter into ground-water, surface water or drains.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Waste key number: 16 03 05* = organic wastes containing hazardous substances
* = Evidence for disposal must be provided.

Recommendation: Dispose of waste according to applicable legislation.
Do not dispose of with household waste.
Do not empty into drains.

Contaminated packaging

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

SECTION 14: Transport information

14.1 UN number

ADR/RID, IMDG, IATA-DGR:

UN 1262

14.2 UN proper shipping name

ADR/RID, IMDG, IATA-DGR:

UN 1262, OCTANES



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14.3 Transport hazard class(es)

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



14.4 Packing group

ADR/RID, IMDG, IATA-DGR:
II



14.5 Environmental hazards

Marine pollutant: yes

14.6 Special precautions for user

Land transport (ADR/RID)

Warning board: ADR/RID: Kemmler-number 33, UN number UN 1262
Hazard label: 3
Limited quantities: 1 L
EQ: E2
Contaminated packaging - Instructions: P001 IBC02 R001
Special provisions for packing together: MP19
Portable tanks - Instructions: T4
Portable tanks - Special provisions: TP1
Tank coding: LGBF
Tunnel restriction code: D/E

Sea transport (IMDG)

EmS: F-E, S-E
Special provisions: -
Limited quantities: 1 L
Excepted quantities: E2
Contaminated packaging - Instructions: P001
Contaminated packaging - Provisions: -
IBC - Instructions: IBC02
IBC - Provisions: -
Tank instructions - IMO: -
Tank instructions - UN: T4
Tank instructions - Provisions: TP2
Stowage and handling: Category B.
Properties and observations: Colourless liquids. Explosive limits: 1% to 6.5%. ISOCTANE: Flashpoint -12°C c.c. n-OCTANE: Flashpoint 13°C c.c. Immiscible with water.
Segregation group: none

Air transport (IATA)

Hazard label: Flamm. liquid
Excepted Quantity Code: E2
Passenger and Cargo Aircraft: Ltd.Qty.: Pack.Instr. Y341 - Max. Net Qty/Pkg. 1 L
Passenger and Cargo Aircraft: Pack.Instr. 353 - Max. Net Qty/Pkg. 5 L
Cargo Aircraft only: Pack.Instr. 364 - Max. Net Qty/Pkg. 60 L
Emergency Response Guide-Code (ERG): 3H

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

No data available



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SECTION 15: Regulatory information

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

National regulations - Great Britain

Hazchem-Code: 3YE
No data available

National regulations - EC member states

Volatile organic compounds (VOC):
100 % by weight = 700 g/L

Labelling of packaging with <= 125mL content



Signal word:

Danger

Hazard statements:

H304

May be fatal if swallowed and enters airways.

Precautionary Statements:

P301+P310

IF SWALLOWED: Immediately call a POISON CENTER/doctor.

P331

Do NOT induce vomiting.

Further regulations, limitations and legal requirements:

Use restriction according to REACH annex XVII, no.: 3

Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances [Seveso-III-Directive]: annex I, part 1, E2.

Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances [Seveso-III-Directive]: annex I, part 1, P5c.

15.2 Chemical Safety Assessment

No data available



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SECTION 16: Other information

Further information

Abbreviations and acronyms:

ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
AS/NZS: Australian Standards/New Zealand Standards
CAS: Chemical Abstracts Service
CFR: Code of Federal Regulations
CLP: Classification, Labelling and Packaging
DMEL: Derived minimal effect level
DNEL: Derived no-effect level
EC50: Effective Concentration 50%
EC: European Community
EN: European Standard
EU: European Union
IATA: International Air Transport Association
IBC Code: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
IMDG Code: International Maritime Dangerous Goods Code
LC50: Median lethal concentration
LD50: Lethal dose 50%
LEL: Lower Explosion Limit
log P(o/w): Partition coefficient: octanol/water
MARPOL: Maritime Pollution: The International Convention for the Prevention of Pollution from Ships
OSHA: Occupational Safety and Health Administration
PBT: Persistent, bioaccumulative and 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
STOT SE: Specific target organ toxicity - single exposure
ThOD: Theoretical Oxygen Demand
UN: United Nations
vPvB: Very persistent and very bioaccumulative

Reason of change: Changes in section 1.3: Department responsible for information

Date of first version: 22/2/2018

Department issuing data sheet

Contact person: see section 1: Department responsible for information

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.