according to Regulation (EC) No. 1907/2006 (REACH) and Regulation (EU) No 453/2010

Stopper AR 600-60

Revision date: 23/3/2015 Version: 9

Language: en-GB,IE



 Date of print:
 21/5/2015

 Page:
 1 of 12

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

1.1 Product identifier

Trade name: Stopper AR 600-60

CAS-Number:	67-63-0
EC-number:	200-661-7
EU index number:	603-117-00-0

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 info	rmation:
	Frau Faldt, Email: daarta faldt@allraaist.da

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. 2; H225Highly flammable liquid and vapour.Eye Irrit. 2; H319Causes serious eye irritation.STOT SE 3; H336May cause drowsiness or dizziness.

Classification according to directive 67/548/EEC

F; R11 Highly flammable.

Xi; R36 Irritating to eyes.

R67 Vapours may cause drowsiness and dizziness.

2.2 Label elements

Labelling (CLP)



Signal word:



according to Regulation (EC) No. 1907/2006 (REACH) and Regulation (EU) No 453/2010

Stopper AR 600-60



Revision date: 23/3/2	015		Date of print:	21/5/2015
Version:	9	Language: en-GB,IE	Page:	2 of 12
Hazard statements:	H225	Highly flammable liquid and vapour.		
	H319	Causes serious eye irritation.		
	H336	May cause drowsiness or dizziness.		
Precautionary stateme	ents:			
	P210	Keep away from heat, hot surfaces, sparks, open flame sources. No smoking.	s and other ig	nition
	P261	Avoid breathing vapours.		
	P280	Wear protective gloves and eye protection.		
	P305+P351+P	338		
		IF IN EYES: Rinse cautiously with water for several minulenses, if present and easy to do. Continue rinsing.	utes. Remove	contact
	P403+P233	Store in a well-ventilated place. Keep container tightly cl	osed.	
Lahallin n (67/54)				
Labelling (67/54		F Xi		
	highly flam	mable irritant		
R phrase(s):	R 11	Highly flammable.		
	R 36	Irritating to eyes.		
	R 67	Vapours may cause drowsiness and dizziness.		
S phrase(s):	S (2)	Keep out of the reach of children.		
	S 7	Keep container tightly closed.		
	S 16	Keep away from sources of ignition No smoking.		
	S 24/25	Avoid contact with skin and eyes.		
	S 26	In case of contact with eyes, rinse immediately with plei	nty of water ar	nd

seek medical advice.

2.3 Other hazards

Potentially explosive mixtures may form if adequate ventilation is not provided. Vapours are slightly irritating to mucous membranes.

Higher doses may lead to a narcotic effect.

Prolonged/repetitive skin contact may cause skin defattening or dermatitis.

May cause sensitisation especially in sensitive humans.

SECTION 3: Composition / information on ingredients

3.1 Substances

Chemical characterisation:

CH3-CH(OH)CH3, Isopropyl alcohol

CAS-Number:	67-63-0
EC-number:	200-661-7
EU index number:	603-117-00-0
RTECS-Number:	NT8050000

according to Regulation (EC) No. 1907/2006 (REACH) and Regulation (EU) No 453/2010

Stopper AR 600-60

Revision date: 23/3/2015 Version: 9

Language: en-GB,IE



 Date of print:
 21/5/2015

 Page:
 3 of 12

SECTION 4: First aid measures

4.1 Description of first aid measures

In case of inhalation:	Move victim to fresh air. If unconscious and breathing is OK, place in the recovery position and seek medical advice. If breathing becomes irregular or ceases, apply mouth-to-mouth resuscitation or artificial respiration immediately, where required supply oxygen. Seek medical attention.
Following skin contact:	After contact with skin, wash immediately with soap and plenty of water. Take off immediately all contaminated clothing. If skin irritation occurs: Consult physician immediately.
After eye contact:	Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Remove contact lenses, if any. Afterwards, consult an ophthalmologist immediately.
After swallowing:	Rinse mouth immediately and drink plenty of water. Never give anything by mouth to an unconscious person. Do not induce vomiting. Immediately get medical attention. Do not give fatty oils and milk.

4.2 Most important symptoms and effects, both acute and delayed

May cause drowsiness or dizziness. Causes serious eye irritation. Higher doses may lead to a narcotic effect. After resorption: Headache, dizziness, inebriation, unconsciousness.

4.3 Indication of any immediate medical attention and special treatment needed

Attention in case of vomiting and stomach pumping: danger of aspiration. Accelerate intestinal transit. Rinse mouth immediately and drink plenty of water. Give sodium sulfate as laxative (1 tablespoon in 1 glass of water) with plenty of activated coal. Otherwise, continue with symptomatic treatment.

If breathing becomes irregular or ceases, apply mouth-to-mouth resuscitation or artificial respiration immediately, where required supply oxygen.

Supervision and correction of circulation, balance of acid-base and electrolyte as well as blood-sugar level. During the after-treatment a diet rich in carbohydrates, proteins and vitamins, poor in fats.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media:

Water fog, extinguishing powder, alcohol resistant 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. Liquid evaporates quickly.

Vapours are heavier than air and will spread at floor level.

Vapours can form explosive mixtures with air. Beware of reignition.

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.

according to Regulation (EC) No. 1907/2006 (REACH) and Regulation (EU) No 453/2010

Stopper AR 600-60



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Revision date: 23/3/20	15		Date of print:	21/5/2015
Version:	9	Language: en-GB,IE	Page:	4 of 12
Additional information:	Hazchem-Code: •2YE			

Use fine water spray to cool endangered containers.
Move undamaged containers from immediate hazard area if it can be done safely.
Heating causes rise in pressure with risk of bursting.
Suppress gases/vapours/mists with water spray jet.
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

Eliminate all ignition sources if safe to do so. Provide adequate ventilation. Do not breathe vapours. Avoid contact with the substance. Wear protective equipment. Keep unprotected people away.

Cordon off downwind area at risk and warn inhabitants.

6.2 Environmental precautions

Do not allow to penetrate into soil, waterbodies or drains. Risk of explosion if the liquid enters the sewage system. If necessary notify appropriate authorities.

6.3 Methods and material for containment and cleaning up

In case of greater quantities: Collect mechanically (use only explosion-proof equipment when pumping out). Dam spills and pump to remove. Close all lower level rooms. Contact expert.

Absorb leftover product with non-flammable liquid-binding material (e.g. earth, sand, vermiculite or ground sand stone) and place in closed containers for disposal.

Additional information: In case of spills of large quantities: Seal off endangered area. Restrict access to affected areas. In neighborhoods and industrial areas, warn inhabitants.

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 good ventilation and/or an exhaust system in the work area. Use only in well-ventilated areas. Use solvent-resistant equipment. Do not breathe vapours. Avoid contact with skin and eyes. Wear protective equipment.

Guarantee sufficient ventilation during and after use, in order to prevent vapour accumulation. When using do not eat, drink, smoke, sniff. Wash hands before breaks and after work. Take off contaminated clothing. Preventive skin protection.

Precautions against fire and explosion:

Take precautionary measures against static discharges. Keep away from sources of ignition. - No smoking. With air, vapours form potentially explosive mixtures, which are heavier than air. In partially filled containers explosive mixtures may form. Use only explosion-protected equipment/instruments. Do not weld.

according to Regulation (EC) No. 1907/2006 (REACH) and Regulation (EU) No 453/2010

Stopper AR 600-60



Revision date: 23/3/2015		Date of print	: 21/5/2015
Version: 9	Language: en-GB,IE	Page:	5 of 12

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storerooms and containers:

	Keep container tightly closed in a cool, well-ventilated place. Breakable containers may not exceed 5,5 liters. Maximum fill: 95 % Storage temperature 10-22 °C.
Hints on joint storage:	Do not store together with combustible or self-igniting materials or any highly flammable solids. Avoid contact with strong oxidizing agents. Keep away from food, drink and animal feedingstuffs. Avoid contact with strong acid, Alkalis and alkaline earth metals.
Storage class:	3 = Flammable liquids

7.3 Specific end use(s)

intermediate for electronic industry

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values:

Туре	Limit value
Great Britain: WEL-STEL	1250 mg/m³; 500 ppm
Great Britain: WEL-TWA	999 mg/m³; 400 ppm
Ireland: 15 minutes	400 ppm
Ireland: 8 hours	200 ppm

DNEL/DMEL:	DNEL long-term, workers, dermal, systemic: 888 mg/kg/d DNEL long-term, workers, inhalative, systemic: 500 mg/m ³ DNEL long-term, consumers, dermal, systemic: 319 mg/kg/d DNEL long-term, consumers, inhalative, systemic: 89 mg/m ³ DNEL long-term, consumers, oral, systemic: 26 mg/kg/d
PNEC:	PNEC water (freshwater): 140.9 mg/L PNEC water (marine water): 140.9 mg/L PNEC water (intermittent release): 140.9 mg/L PNEC sediment: 552 mg/kg PNEC soil: 28 mg/kg PNEC sewage treatment plant (stp): 2251 mg/L PNEC oral: 160 mg/kg food

8.2 Exposure controls

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

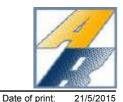
Personal protection equipment

Occupational exposure controls

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.

according to Regulation (EC) No. 1907/2006 (REACH) and Regulation (EU) No 453/2010

Stopper AR 600-60



Revision date: 23/3/20	15		Date of print:	21/5/2015
Version:	9	Language: en-GB,IE	Page:	6 of 12
Hand protection:	Glove material: - Butyl caoutcho	according to EN 374. ouc (butyl rubber), layer thickness: (>=0.5 mm), brea Viton), layer thickness: (>=0.4 mm), breakthrough ti		e: 8 h
	 Nitrile rubber, la Polychloropren 	ayer thickness: (>=0.35 mm), breakthrough time: a ne, layer thickness: (>=0.5 mm), breakthrough time anufacturer's instructions concerning penetrability ar	8 h ∷ 4 h	gh time.
Eye protection:	Tightly sealed goggles according to EN 166.			
Body protection:	Wear flame-resistant antistatic protective clothing.			
General protection and	hygiene measures:			
		tant equipment. Avoid contact with skin, eyes, and c ntaminated clothing.	lothing. Take o	off
	Do not breathe vapours. When using do not eat, drink or smoke.			
	Use only non-sparking tools. Keep away from sources of heat (e.g. hot surfaces), sparks and open flames.			sparks
	Wash hands befo work place.	re breaks and after work. Have eye wash bottle or	eye rinse read	ly at

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance:	Form: liquid Colour: colourless, clear
Odour:	
Odour threshold:	alcoholic no data available
pH value:	neutral
Melting point/freezing point:	-89.5 °C
Initial boiling point and boiling range:	82 °C (DIN 53171)
Flash point/flash point range:	12 °C (DIN 51755)
Evaporation rate:	no data available
Flammability:	Highly flammable liquid and vapour.
Explosion limits:	LEL (Lower Explosion Limit): 2.00 Vol-%
	UEL (Upper Explosive Limit): 12.00 Vol-%
Vapour pressure:	at 20 °C: 48 hPa
	at 50 °C: 225 hPa
Vapour density:	no data available
Density:	at 20 °C: 0.785 g/mL
Water solubility:	at 20 °C: completely miscible
Partition coefficient: n-octanol/water:	0.05 log P(o/w) (OECD 107)
	Bio-accumulation is not to be expected (log P(o/w) <1).
Auto-ignition temperature:	no data available
Thermal decomposition:	no data available
Viscosity, dynamic:	at 20 °C: 2.43 mPa*s
Explosive properties:	Not explosive. Vapours can form explosive mixtures with air.
Oxidizing characteristics:	no data available
9.2 Other information	
Ignition temperature:	425 °C (DIN 51794)
ighter tomporataro.	7200 (Dire 01/04)

according to Regulation (EC) No. 1907/2006 (REACH) and Regulation (EU) No 453/2010

Stopper AR 600-60



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Revision date: 2	23/3/2015		Date of print:	21/5/2015
Version:	9	Language: en-GB,IE	Page:	7 of 12
Refraction index:		at 20 °C: 1.376 - 1.378		

Additional information:

Molar mass: 60.11 g/mol Relative vapour density at 20 °C (air=1): 2 Evaporation rate: 11 (ether = 1, DIN 53170) Saturation concentration at 20 °C 106000 mg/m³

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

Exothermic reactions with strong acid. Liquid evaporates quickly. Vapours are heavier than air and will spread at floor level. Vapours can form explosive mixtures with air. Beware of reignition. Do not expose to high temperature. Danger of bursting and explosion.

10.4 Conditions to avoid

Keep away from heat sources, sparks and open flames.

10.5 Incompatible materials

Strong acid, Oxidising agent, pyrophoric solids. Reacts at room temperature with alkali, less so with alkaline earth metals (with formation of hydrogen), at higher temperatures a measurably stronger reaction occurs.

10.6 Hazardous decomposition products

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

Thermal decomposition: no data available

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity:5840 mg/kg (OECD 401)LD50 Rat, oral:5840 mg/kg (OECD 401)LD50 Rabbit, dermal:13900 mg/kg (OECD 403)LC50 Rat, inhalative:> 25 mg/L/6h (OECD 402)

according to Regulation (EC) No. 1907/2006 (REACH) and Regulation (EU) No 453/2010

Stopper AR 600-60



Revision date: 23/3/20 Version:	15 9 Language: en-GB,IE	Date of print: 21/5/20 Page: 8 of
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Toxicological effects:	Acute toxicity (oral): Based on available data, the class	ification criteria are not met.
	Acute toxicity (dermal): Based on available data, the cla	assification criteria are not met.
	Acute toxicity (inhalative): Based on available data, the	classification criteria are not met.
	Skin corrosion/irritation: Based on available data, the c	lassification criteria are not met.
	Eye damage/irritation: Eye Irrit. 2; H319 = Causes seri	ous eye irritation.
	Sensitisation to the respiratory tract: Based on available are not met.	e data, the classification criteria
	Skin sensitisation: Based on available data, the classific	
	Specific symptoms in animal studies, guinea pig: not se	
	Germ cell mutagenicity/Genotoxicity: Based on availabl are not met.	
	Gene-mutations mammalian cells (in-vitro, hamster): ne Bacterial mutagenicity: negative (in-vitro, Ames test) (C Micronucleus test: (in-vivo, Mouse): negative (OECD 47	DECD 471).
	Carcinogenicity: Based on available data, the classification	ation criteria are not met.
	Reproductive toxicity: Based on available data, the clas	sification criteria are not met.
	Effects on or via lactation: Based on available data, the	classification criteria are not met.
	Specific target organ toxicity (single exposure): STOT S drowsiness or dizziness.	SE 3; H336 = May cause
	Specific target organ toxicity (repeated exposure): Base classification criteria are not met.	ed on available data, the
	Aspiration hazard: Based on available data, the classifi	cation criteria are not met.
	In severe cases, pneumonia or a pulmonary edema ma case of swallowing or vomiting danger of penetration into	
Other information:	Product shows a general protoplasm effect and can be	considered as a weak cytotoxin.
Symptoms		
	In case of inhalation:	
	After resorption: Headache, dizziness, inebriation, unco	
	High concentrations of vapours irritate the eyes and mu	cous membranes.
	In case of ingestion: Nausea, vomiting, abdominal pain, gastrointestinal com	plaints, blood pressure drop
	Following intake of large amounts: unconsciousness, or	

Following intake of large amounts: unconsciousness, coma, breathing paralysis (death). if swallowed or in the event of vomiting, risk of entering the lungs. Absorption can lead to kidney and liver damage.

After contact with skin:

Prolonged/repetitive skin contact may cause skin defattening or dermatitis.

according to Regulation (EC) No. 1907/2006 (REACH) and Regulation (EU) No 453/2010

Stopper AR 600-60

Revision date: 23/3/2015 Version: 9

Language: en-GB,IE



 Date of print:
 21/5/2015

 Page:
 9 of 12

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity:

Toxic effect on fishes and plankton. Algae toxicity: EC50 Green algae: >100 mg/L/72h. Bacterial toxicity: EC50: >100 mg/L EC5 Pseudomonas putida: 1050 mg/L/16h. Daphnia toxicity: EC50 Daphnia magna (Big water flea): 9714 mg/L/48h. Fish toxicity: LC50 Lepomis macrochirus (bluegill): 1400 mg/L/96h. LC50 Leuciscus idus test: 8970 mg/L/48h. LC50 Pimephales promelas (fathead minnow): 9640 mg/L/96h.

12.2. Persistence and degradability

Further details: Product is readily biodegradable.

Oxygen demand: BOD 5: 53 %

ThOD: 72 %

12.3 Bioaccumulative potential

Bioconcentration factor (BCF):

Bio-accumulation is not to be expected (log P(o/w) < 1).

12.4 Mobility in soil

no data available

12.5 Results of PBT and vPvB assessment

This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.

12.6 Other adverse effects

General information: Do not allow to penetrate into soil, waterbodies or drains.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Waste key number:	07 01 04* = organic solvents, halogen-free
Recommendation:	 * = Evidence for disposal must be provided. Incinerate as hazardous waste according to applicable local, state, and federal regulations.

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.

according to Regulation (EC) No. 1907/2006 (REACH) and Regulation (EU) No 453/2010

Stopper AR 600-60

Revision date: 23/3/2015 Version: 9

Language: en-GB,IE

SECTION 14: Transport information

14.1 UN number

ADR/RID, IMDG, IATA: UN 1219

14.2 UN proper shipping name

ADR/RID, IMDG, IATA: UN 1219, ISOPROPANOL (ISOPROPYL ALCOHOL)

14.3 Transport hazard class(es)

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

14.4 Packing group

ADR/RID, IMDG, IATA:

14.5 Environmental hazards

Marine pollutant:

14.6 Special precautions for user

No

Land transport (ADR/RID)

Warning board:	ADR/RID: Kemmler-number 33, UN number 1219
Hazard label:	3
Special provisions:	601
Limited quantities:	1L
EQ:	E2
Contaminated packaging - Instructions:	P001 - IBC02 - R001
Special provisions for packing together:	MP19
Portable tanks - Instructions:	Τ4
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:	1L
EQ:	E2
Contaminated packaging - Instructions:	P001
Contaminated packaging - Provisions:	-
IBC - Instructions:	IBC02
IBC - Provisions:	-
Tank instructions - IMO:	-
Tank instructions - UN:	Τ4
Tank instructions - Provisions:	TP1
Stowage and handling:	Category B.
Properties and observations:	Colourless, mobile liquid. Flashpoint: 12°C c.c. Explosive limits: 2% to 12%. Miscible with water.





 Date of print:
 21/5/2015

 Page:
 10 of 12

GB,IE

according to Regulation (EC) No. 1907/2006 (REACH) and Regulation (EU) No 453/2010

Stopper AR 600-60



Revision date: 23/3/2015		Date of print:	21/5/2015
Version:	Language: en-GB,IE	Page:	11 of 12

Air transport (IATA)

Hazard:	Flammable liquid
EQ:	E2
Passenger Ltd.Qty.:	Pack.Instr. Y341 - Max. Net Qty/Pkg. 1 L
Passenger:	Pack.Instr. 353 - Max. Net Qty/Pkg. 5 L
Cargo:	Pack.Instr. 364 - Max. Net Qty/Pkg. 60 L
Special Provisioning:	A180
ERG:	3L

14.7 Transport in bulk according to Annex II of MARPOL 73/78 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: •2YE

National regulations - EC member states

Volatile organic compounds (VOC):

100 % by weight = 780 g/L

Labelling of packaging with <= 125mL content



Hazard statements: H336 Precautionary statements:

Signal word:

May cause drowsiness or dizziness. P403+P233

Avoid breathing vapours.

Store in a well-ventilated place. Keep container tightly closed.

15.2 Chemical Safety Assessment

P261

For this substance a chemical safety assessment has been carried out.

SECTION 16: Other information

Further information

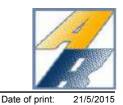
Reason of change:	Changes in section 1: substance name, synonymes
	Changes in section 14: IMDG 2015
Date of first version:	19/8/2010

Department issuing data sheet

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

according to Regulation (EC) No. 1907/2006 (REACH) and Regulation (EU) No 453/2010

Stopper AR 600-60



12 of 12

Page:

Revision date: 23/3/2015 Version: 9

Language: en-GB,IE

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.