AKEMI®

Printing date 06.06.2019	Versi	on number 7	Revision: 06.06.2019
SECTION 1: Identification of the	substance/mixtu	re and of the company/undertakin	ıg
• 1.1 Product identifier			
• <u>Trade name:</u>	Crystal Clean	2007	
 <u>Article number:</u> <u>1.2 Relevant identified uses of</u> 	10955, 10956, 10	J907	
the substance or mixture and uses advised against	No further releva	nt information available.	
Application of the substance / the mixture	Cleaning agent/	Cleaner	
• 1.3 Details of the supplier of the	safety data sheet	t	
· Manufacturer/Supplier:		i technische Spezialfabrik GmbH	Tel. +49(0)911-642960 Fax. +49(0)911-644456 e-mail info@akemi.de
Further information obtainable from: 1.4 Emergency telephone	Laboratory		
<u>number:</u>	Tel. +49(0)911-6 Reachable during Monday – Thurso	g the following office hours: day from 07:30 a.m. to 16:30 p.m. 0 a.m. to 13:30 p.m. I 91 Inform. Centre gy Unit	che Spezialfabrik GmbH
SECTION 2: Hazards identificatio			
Classification according to Regulat		2008	
GHS02 flame			
Flam. Liq. 3 H226 Flammable liqu	id and vapour.		
GHS05 corrosion			
Eye Dam. 1 H318 Causes serious	s eye damage.		
 • 2.2 Label elements Labelling according to Regulation (EC) No 1272/2008 Hazard pictograms 	The product is cla	assified and labelled according to the	e CLP regulation.
	GHS02 GHS0	5	
· Signal word	Danger		
 Hazard-determining components of labelling: 	Alcohols C12-C	14, ethoxylated, sulphates, sodium s	alts
· Hazard statements	H226 Flammable	e liquid and vapour.	
· Precautionary statements	H318 Causes se P101	rious eye damage. If medical advice is needed, have	e product container or label
	P102	at hand. Keep out of reach of children.	
			(Contd. on page 2) GB

Printing date 06.06.2019

Version number 7

Revision: 06.06.2019

Trade name: Crystal Clean

	P103	(Contd. of page Read label before use.
	P210	Keep away from heat, hot surfaces, sparks, open flames ar other ignition sources. No smoking.
	P280	Wear protective gloves / eye protection.
	P302+P352	IF ON SKIN: Wash with plenty of water.
	P305+P351+P3	338 IF IN EYES: Rinse cautiously with water for several minute Remove contact lenses, if present and easy to do. Continuring.
	P403+P235 P501	Store in a well-ventilated place. Keep cool. Dispose of contents/container in accordance with loca regional/national/international regulations.
· 2.3 Other hazards		
Results of PBT and vPvB	assessment	
· <u>PBT:</u>	Not applicable.	
· vPvB:	Not applicable.	

· 3.2 Chemical characterisation: Mixtures

Mixture of substances listed below with nonhazardous additions. · Description:

Dangerous components:

· Dangerous components.						
	anionic surfactants	 Eye Dam. 1, H318 Skin Irrit. 2, H315 Aquatic Chronic 3, H412 	1-5%			
CAS: 67-63-0 EINECS: 200-661-7 Index number: 603-117-00-0 Reg.nr.: 01-2119457558-25-xxxx	propan-2-ol	 ♦ Flam. Liq. 2, H225 ♦ Eye Irrit. 2, H319; STOT SE 3, H336 	12.5-25%			
Regulation (EC) No 648/2004 on detergents / Labelling for contents						
anionic surfactants, perfumes ((R)-p-mentha-1,8-diene) <5%						
• Additional information: For the wording of the listed hazard phrases refer to section 16.						

SECTION 4: First aid measures

· 4.1 Description of first aid measures

 General information: 	Take affected persons out into the fresh air.
	Keep warm, position comfortably and cover well.
	Immediately remove any clothing soiled by the product.
	No special measures required.
 After inhalation: 	Supply fresh air; consult doctor in case of complaints.
After skin contact:	If skin irritation continues, consult a doctor.
After eye contact:	Rinse opened eye for several minutes under running water. Then consult a
	doctor.
 After swallowing: 	If symptoms persist consult doctor.
· 4.2 Most important symptoms	
and effects, both acute and	
delayed	Breathing difficulty
	Dizziness
	Dizziness
	Nausea
 Information for doctor: 	Symptoms in alcohol intoxication:
	a) acute intoxication: euphoria, inhibitions, disturbances in co-ordination; in severe cases insensibility, respiratory dysfunction.
	 b) chronic intoxication: CNS-, hepatic and cardiac dysfunctions with change of personality, alcohol induced hepatitis and reduced cardiac power. Therapy in alcohol intoxication:
	In acute intoxication observation of circulatory system, artifical breathing when (Contd. on page 3)





Printing date 06.06.2019

Version number 7

Printing date 06.06.2019	Version number 7	Revision: 06.06.2019
Trade name: Crystal Clean		
Hazards 4.3 Indication of any immediate medical attention and special	indicated, gastrolavage, peritoneal or hemodialysis. Danger of impaired breathing.	(Contd. of page 2)
treatment needed	If swallowed, gastric irrigation with added, activated car	bon.
SECTION 5: Firefighting measur	es	
 5.1 Extinguishing media Suitable extinguishing agents: 	CO2, powder or water spray. Fight larger fires with resistant foam.	water spray or alcohol
• 5.2 Special hazards arising from		
the substance or mixture	Formation of toxic gases is possible during heating or ir In case of fire, the following can be released: Carbon monoxide (CO) Nitrogen oxides (NOx) Hydrogen chloride (HCI) Under certain fire conditions, traces of other toxic gases	
· 5.3 Advice for firefighters	Under certain me conditions, traces of other toxic gases	
 Protective equipment: Additional information 	Do not inhale explosion gases or combustion gases. Cool endangered receptacles with water spray.	
SECTION 6: Accidental release r	neasures	
 <u>6.1 Personal precautions</u>, protective equipment and 		
emergency procedures	Ensure adequate ventilation Keep away from ignition sources. Use respiratory protective device against the effects of	fumes/dust/aerosol.
· 6.2 Environmental precautions:	Particular danger of slipping on leaked/spilled product. Do not allow product to reach sewage system or any wa Inform respective authorities in case of seepage into system.	
· 6.3 Methods and material for	Do not allow to enter sewers/ surface or ground water.	
containment and cleaning up:	Dilute with plenty water. Absorb with liquid-binding material (sand, diatomite binders, sawdust).	, acid binders, universal
· <u>6.4 Reference to other sections</u>	Ensure adequate ventilation. See Section 7 for information on safe handling. See Section 8 for information on personal protection eq See Section 13 for disposal information. No dangerous substances are released.	uipment.
SECTION 7: Handling and storage	7e	
· 7.1 Precautions for safe	-	
handling	Keep receptacles tightly sealed.	
	Store in cool, dry place in tightly closed receptacles. Keep away from heat and direct sunlight. When diluting always pour product into water and not vi No special measures required.	ice versa.
Information about first and	Ensure good ventilation/exhaustion at the workplace.	
 Information about fire - and explosion protection: 	No special measures required.	(Contd. on page 4)
		(Conta: on page 4)

Printing date 06.06.2019

Trade name: Crystal Clean

Version number 7



	er johar erearr			
				(Contd. of page 3)
. 7 2 Condi	tions for safe storage	inclu	ding any incompatibilities	(i c ,
· Storage:	lions for sale storage,	menu	any meonpatibilities	
	ents to be met by			
storeroom	s and receptacles:		e only in the original receptacle.	
		Prev	vent any seepage into the ground.	
	n about storage in one	Ctor	a away from avidiaing aganta	
<u>common s</u>	torage facility:		e away from oxidising agents. e away from foodstuffs.	
 Further inf 	ormation about storage			
conditions		Prot	ect from frost.	
			e receptacle in a well ventilated area.	
· 7.3 Specif	ic end use(s)	No 1	further relevant information available.	
OFOTION	0 F			
SECTION	8: Exposure controls/	perso	nal protection	
 Additional 	information about			
design of t	echnical facilities:	No f	further data; see item 7.	
· 8.1 Contro	ol parameters			
Ingredients	s with limit values that r	equire	monitoring at the workplace:	
67-63-0 pr	ropan-2-ol	•	T	
•	rt-term value: 1250 mg/	m³, 50	0 ppm	
	g-term value: 999 mg/m			
· DNELs				
	ropan-2-ol			
Oral	DNEL (Langzeit-wiede	rholt)	26 mg/kg bw/day (BEV)	
Dermal	DNEL (Langzeit-wiede	,		
Dennai	DIVEL (Langzon wiede	mony	319 mg/kg bw/day (BEV)	
Inhalativo	DNEL (Langzeit-wiede	rholt)	500 mg/m ³ Air (ARB)	
IIIIalauve		mony	89 mg/m ³ Air (BEV)	
Alaahala	C12-C14, ethoxylated	o	,	
			· · · · · · · · · · · · · · · · · · ·	
Oral	DNEL (Langzeit-wiede	,	15 mg/kg bw/day (BEV)	
Dermal	DNEL (Langzeit-wiede	ernolt)	2,050 mg/kg bw/day (ARB)	
			1,650 mg/kg bw/day (BEV)	
Inhalative	DNEL (Langzeit-wiede	rholt)	175 mg/m ³ Air (ARB)	
			52 mg/m³ Air (BEV)	
· PNECs				
	ropan-2-ol			
PNEC (wä	issrig) 2,251 mg/l (KA)			
	140.9 mg/l (MW))		
	140.9 mg/l (SW)			
	140.9 mg/l (WAS	3)		
PNEC (fes	PNEC (fest) 28 mg/kg Trockengew		(BO)	
	552 mg/kg Trockengev			
	552 mg/kg Trockengev			
Alcohols.	C12-C14, ethoxylated	-		
	issrig) 10,000 mg/l (KA		•	
	0.024 mg/l (MW)	•		
	0.24 mg/l (SW)	,		
L				(Contd. on page 5)

Printing date 06.06.2019

Version number 7

Revision: 06.06.2019

AKEMI®

Trade name: Crys	stal Clean	
		(Contd. of page 4)
	0.071 mg/l (WA	S)
PNEC (fest)	0.946 mg/kg Tr	ockengew (BO)
	0.545 mg/kg Tr	ockengew (MWS)
	5.45 mg/kg Tro	ckengew (SWS)
Additional info	rmation:	The lists valid during the making were used as basis.
· 8.2 Exposure	controls	
 Personal prote 	ctive equipment:	
	ctive and hygienic	
measures:		Do not eat, drink, smoke or sniff while working. Apply water proof skin cream before starting work.
		Immediately remove all soiled and contaminated clothing
		Do not inhale gases / fumes / aerosols.
 Respiratory pressure 	otection:	In case of brief exposure or low pollution use respiratory filter device. In case of
		intensive or longer exposure use self-contained respiratory protective device.
 Protection of h 	ands:	Preventive skin protection by use of skin-protecting agents is recommended.
		After use of gloves apply skin-cleaning agents and skin cosmetics.
		Protective gloves
		Fiotective gloves
		The glove material has to be impermeable and resistant to the
		product/ the substance/ the preparation.
		Due to missing tests no recommendation to the glove material can be
		given for the product/ the preparation/ the chemical mixture.
		Selection of the glove material on consideration of the penetration
		times, rates of diffusion and the degradation
		Skin protection agent recommendation for preventive skin shelter in application and combination of protective gloves:
		STOKO EMULSION (http://www.stoko.com)
		Skin protection recommendation for skin cleaning after product
		handling:
		FRAPANTOL (http://www.stoko.com)
		Skin protection agent recommendation for skin aftercare: STOKO VITAN (http://www.stoko.com)
		The protection gloves to be used have to comply with the
		specifications of the directive 89/686/EC and the directive derived
		decree EN374, respectively, e.g. the above listed protection glove
		type. The mentioned permeation times' data were generated and
		verified with material samples of the recommended protection glove
		type in the scope of laboratory anylyses of the company KCL GmbH in compliance with EN374.
		This recommendation refers exclusively to the material safety data
		sheet referenced product delivered by Akemi and the indicated field of
		application. In case of product dilution or in case of mixture with
		different substances or chemicals, and in condition of EN374 deviation
		the producer of CE-approved protection gloves must be contacted for
		detailed information (e.g., KCL GmbH, Germany, 36124 Eichenzell,
 Material of glov 		internet: http://www.kcl.de). Nitrile rubber, NBR
Material of gio	100	Butyl rubber, BR
		Fluorocarbon rubber (Viton)
		The selection of the suitable gloves does not only depend on the material, but
		also on further marks of quality and varies from manufacturer to manufacturer.
		As the product is a preparation of several substances, the resistance of the
		glove material can not be calculated in advance and has therefore to be checked prior to the application.
		(Contd. on page 6)
		- GB

Safety data sheet

according to 1907/2006/EC, Article 31



(Contd. of page 5)

Printing date 06.06.2019

Trade name: Crystal Clean

Version number 7

· <u>Penetration time of glove material</u> Value for the permeation: Level \leq 6, 480 min

For the permanent contact gives made of the following materials are suitable: Nitrile rubber, NBR Camartil (KCL, Art, No. 700, 731, 732, 733) Buty fubber, BR Butgiet (KCL, Art, No. 807, 898) Fluorocarbon rubber (Viton) • As protection from splashes gloves made of the following materials are suitable: Nitrile rubber, NBR Camartil (KCL, Art, No. 809) • Not suitable are gloves made of the following materials are suitable: Nitrile rubber, NBR Camatril (KCL, 730, 731, 732, 733) • Not suitable are gloves made of the following materials: Leather gloves Strong material gloves Strong material gloves Strong material gloves Strong material gloves Strong material gloves • SECTION 9: Physical and chemical properties • SECTION 9: Physical and chemical properties • General Information - Appearance: Form: Colouri: Fluid Colouri: Colouriess • Oddor: Colouriess • Oddor: Colouriess • Oddor: 9 • Flush point/treezing point: Initial boiling point and boiling range: 2 °C > 55 °C • Ignition temperature: 425 °C • Auto-ignition temperature: Product is not selfigniting. • Explosive properties: Product does not present an explosion hazard. • Explosive infinits: Upper: 12 Vol % • Outoe: 0.98 g/cm ^a • Sububility in / Miscibiiity with water: Not determined	Penetration time of glove material	The exact break trough time has to be found out by the manufacturer of t
made of the following materials are suitable: Nitrile rubber, NBR Camatril (KCL, Art, No. 730, 731, 732, 733) Buty rubber, BR Butoject (KCL, Art, No. 897, 898) Fluorocarbon rubber (Viton) Vitoject (KCL, Art, No. 897, 898) • As protection from splashes gloves made of the following materials are suitable: Nitrile rubber, NBR Camatril (KCL, 730, 731, 732, 733) • Not suitable are gloves made of the following materials: Leather gloves Strong material gloves • Eye protection: Goggies recommended during refilling • Body protection: Protective work clothing SECTION 9: Physical and chemical properties - • 9.1 Information on basic physical and chemical properties - • General Information Colour: Cloudress • Oddour: Cloudress • Oddour: Cloudress • Oddour: Stor 9 • Change in condition Metting point: Undetermined. Initial boiling point: • pH-value at 20 °C: 9 • Change in condition Metting point: Vate 25 °C • Auto-ignition temperature: Product is not selfigniting. • Explosive properties: Product does not present an explosion hazard. • Explosine limits: Lower: 2 Vol % Upper: 12 Vol % • Vapour pressure at 20 °C: 0.98	For the permanent context aloues	protective gloves and has to be observed.
suitable: Nitrile rubber, NBR Camatril (KCL, Art, No. 70, 731, 732, 733) Butyl rubber, BR butoject (KCL, Art, No. 897, 898) Fluorocarbon rubber (Viton) Vitoject (KCL, Art, No. 890) • As protection from splashes gloves made of the following materials are suitable: Nitrile rubber, NBR Carmatril (KCL, Art, No. 890) • As protection: Gogles recommended during refilling • Protection: Gogles recommended during refilling • Body protection: Protective work clothing SECTION 9: Physical and chemical properties • • Alphormation - Appearance: Form: Fluid Colour: Colourless • Oddur: Colourless • Oddur: Colourless • Oddur: Pi-value at 20 °C: • Pi-value at 20 °C: 9 • Change in condition Metting point/freezing point: Indite metherature: Product is not selfigniting. • Explosive properties: Product does not present an explosion hazard. • Explosive properties: Product does not present an explosion hazard. • Explosive		<u>a</u>
Camatri (KCL, Art, No. 730, 731, 732, 733) Butyl rubber, BR Butoject (KCL, Art, No. 897, 898) Fluorocarbon rubber (Viton) Visitier ubber, NBR suitable: Nitrile rubber, NBR Camatri (KCL, Art, No. 890) • As protection from splashes gloves made of the following materials are suitable: Nitrile rubber, NBR Camatri (KCL, 730, 731, 732, 733) • Not suitable are gloves made of the following materials are Strong material gloves - General Information - Appearance: - First: Fluid Colour: Colouries - Odour: Colouries <td></td> <td></td>		
Butyl rubber, BR Butyle rubber, BR Butopect (KCL, Art, No. 897, 898) Fluorocarbon rubber (Viton) Vitoject (KCL, Art, No. 890) • As protection from splashes gloves made of the following materials are suitable: Not suitable are gloves made of the following materials: Leather gloves Strong material gloves Eye protection: Goggles recommended during refilling Body protection: Protective work clothing SECTION 9: Physical and chemical properties • 9.1 Information on basic physical and chemical properties • General Information Appearance: Form: Fluid Colour: Colourless • Odour: Colourless • Odour: Colourless • Odour: 9 • Change in condition Undetermined. Initial boiling point and boiling range: 82 °C • Flash point: >55 °C • Ignition temperature: Product is not selfigniting. • Explosive properties: Product does not present an explosion hazard. • Explosive are at 20 °C: 0.98 g/cm ³ • Outper: 12 Vol		
Fluorocarbon rubber (Viton) As protection from splashes gloves made of the following materials are suitable: Not suitable are gloves made of the following materials: Leather gloves Strong material gloves Odour:		Butyl rubber, BR
As protection from splayers gloves made of the following materials are suitable: Nitrile rubber, NBR Camatril (KCL, 730, 731, 732, 733) Not suitable are gloves made of the following materials are strong material gloves Leather gloves Strong material gloves Strong material gloves Body protection: Goggles recommended during refilling Body protection: Protective work clothing SECTION 9: Physical and chemical properties - 9.1 Information on basic physical and chemical properties - General Information - Appearance: Fluid Colour: Colourless Oddur: Colourless Odur: Colourless Odur: Colourless Odur: Store Colourless Odur: Colourless Odur: Store Colourles - Ph-value at 20 °C: 9 • Change in condition Metermined. Meting point/metaring point: Undetermined. Initial boiling point and boiling range: 82 °C • Flash point: > 55 °C - Jopistion temperature: Product is not selfigniting. - Explosion limits: 2 Vol %		
 As protection from splashes gloves made of the following materials are suitable: Nitrile rubber, NBR Camatril (KCL, 730, 731, 732, 733) Not suitable are gloves made of the following materials: Leather gloves Strong material gloves Eye protection: Goggles recommended during refilling Body protection: Protective work clothing SECTION 9: Physical and chemical properties Sectron on basic physical and chemical properties General Information Appearance: Form: Colour: Colour: Colour: Colour: Colouriess Odour: Characteristic p1-halue at 20 °C: 9 Change in condition Metting point/freezing point: Undetermined. Initial boiling point and boiling range: 82 °C Flash point: > 55 °C Ignition temperature: Product is not selfigniting. Explosive properties: Product is not selfigniting. Explosive properties: Product is not selfigniting. Explosive properties: Product does not present an explosion hazard. Explosive properties: Product does not present an explosion hazard. Vapour pressure at 20 °C: 43 hPa Density at 20 °C: 0.98 g/cm³ Solubility in / Miscibility with water: Not determined. Kinematic at 20 °C: 14.4 % 		
made of the following materials are suitable: Nitrile rubber, NBR Camatril (KCL, 730, 731, 732, 733) Not suitable are gloves made of the following materials: Leather gloves Strong material gloves Eye protection: Goggles recommended during refilling Body protection: Protective work clothing SECTION 9: Physical and chemical properties	As protection from onlocked glove	
suitable: Nitrile rubber, NBR Camatril (KCL, 730, 731, 732, 733) Not suitable are gloves made of the following materials: Leather gloves Strong material gloves Eye protection: Goggles recommended during refilling Body protection: Protective work clothing SECTION 9: Physical and chemical properties • Section: Protective work clothing Section: Protective work clothing Section: Colour: Colour: Colourless Odour: Colourless Odour: Colourless Odour: Colourless Odour: Undetermined. Initial boiling point/freezing point: Undetermined. Initial boiling point and boiling range; 82 °C • Ignition temperature: 425 °C Auto-ignition temperature: Product is not selfigniting. Explosive properties: Product does not present an explosion hazard. Explosive properties: Vol % Upper: 12 Vol % Vapour pressure at 20 °C: 43 hPa Density at 20 °C: 0.98 g/cm³ Solubility in / Miscibility with water: Not determined. Kinematic at 20 °C: Viscosity:		
Camatril (KCL, 730, 731, 732, 733) • Not suitable are gloves made of the following materials: Leather gloves Strong material gloves Strong material gloves Eye protection: Goggles recommended during refilling • Body protection: Protective work clothing SECTION 9: Physical and chemical properties Secure al Information on basic physical and chemical properties • Secure al Information on basic physical and chemical properties General Information • Appearance: Form: Fluid Colour: Colourless Odour: • Odour: Characteristic 9 • Change in condition Undetermined. Initial boiling point/freezing point: Ignition temperature: > 55 °C - Ignition temperature: Product is not selfigniting. • Explosive properties: Product does not present an explosion hazard. • Explosion limits: 2 Vol % Upper: 12 Vol % · Vapour pressure at 20 °C: 9.8 g/cm ³ • Solubility in / Miscibility with water: Not miscible or difficult to mix. • Explosion limits: 0.98 g/cm ³ • Density at 20 °C: 13 NPa • Density at 20 °C: 11 s (DIN 53211/4)		
the following materials: Leather gloves Strong material gloves Eye protection: Goggles recommended during refilling Body protection: Protective work clothing SECTION 9: Physical and chemical properties 9.1 Information on basic physical and chemical properties General Information Appearance: Form: Fluid Colour: Colourless Odour: Characteristic pH-value at 20 °C: 9 • Change in condition Undetermined. Initial boiling point Melting point/freezing point: Vndetermined. Initial boiling range: 82 °C • Flash point: > 55 °C Ignition temperature: 425 °C • Auto-ignition temperature: Product is not selfigniting. • Explosive properties: Product does not present an explosion hazard. • Explosion limits: 2 Vol % Upper: 12 Vol % • Vapour pressure at 20 °C: 43 hPa • Density at 20 °C: 0.98 g/cm³ • Solubility in / Miscibility with water; Not miscible or difficult to mix. • Viscosity: Dynamic: Dynamic: Not determined. Hitte Din S		
Strong material gloves Eye protection: Goggles recommended during refilling Body protection: Protective work clothing SECTION 9: Physical and chemical properties		
Eye protection: Goggles recommended during refilling Body protection: Protective work clothing SECTION 9: Physical and chemical properties General Information General Information Appearance: Form: Fluid Colour: Colourless Odour: Characteristic 9 Charage in condition Melting point/freezing point: Undetermined. Initial boiling point and boiling range: 82 °C • Flash point: > 55 °C Ignition temperature: 425 °C • Auto-ignition temperature: Product is not selfigniting. • Explosive properties: Product does not present an explosion hazard. • Explosion limits: 2 Vol % Lower: 2 Vol % Upper: 12 Vol % • Vapour pressure at 20 °C: 43 hPa • Density at 20 °C: 0.98 g/cm ³ • Solubility in / Miscibility with water: Not miscible or difficult to mix. • Viscosity: Not determined. Marter: Not determined. Solubility in / Miscibility with Solubility in / Miscibility with Water: Not de	the following materials:	
• Body protection: Protective work clothing SECTION 9: Physical and chemical properties • 9.1 Information on basic physical and chemical properties General Information • Appearance: Form: Fluid Colour: Colourless • Odour: Colourless • Odour: Characteristic • pH-value at 20 °C: 9 • Change in condition Undetermined. Initial boiling point Undetermined. Initial boiling point and boiling range: 82 °C • Flash point: > 55 °C Ignition temperature: Product is not selfigniting. • Explosive properties: Product does not present an explosion hazard. • Explosion limits: 12 Vol % Upper: 12 Vol % • Vapour pressure at 20 °C: 0.98 g/cm ³ • Solubility in / Miscibility with water: Not miscible or difficult to mix. • Viscosity: Dynamic: at 20 °C: 11 s (DIN 53211/4) • Solvent content: Oreations: 14.4 %		
SECTION 9: Physical and chemical properties Sector of the sector of		00 0 0
9.1 Information on basic physical and chemical properties General Information Appearance: Form: Fluid Colour: Colourless • Odour: Characteristic • pH-value at 20 °C: 9 • Change in condition Undetermined. Melting point/freezing point: Undetermined. Initial boiling range: 82 °C • Flash point: > 55 °C • Ignition temperature: 425 °C • Auto-ignition temperature: Product is not selfigniting. • Explosive properties: Product does not present an explosion hazard. • Explosion limits: Lower: Lower: 2 Vol % Upper: 12 Vol % Vapour pressure at 20 °C: 43 hPa • Density at 20 °C: 0.98 g/cm³ • Solubility in / Miscibility with water: viscosity: Dynamic: Dynamic: Not determined. Kinematic at 20 °C: 11 s (DIN 53211/4) • Solvent content: Organic solvents: Organic solvents: 14.4 %		
General Information Appearance: Form: Fluid Colour: Colourless Odour: Characteristic pH-value at 20 °C: 9 Change in condition Undetermined. Initial boiling point/freezing point: Version of the point of the p	SECTION 9: Physical and chemi	cal properties
Appearance: Fluid Form: Colour: Colour: Colourless Odour: Characteristic • pH-value at 20 °C: 9 • Change in condition Undetermined. Initial boiling point and boiling range: 82 °C • Flash point: > 55 °C • Ignition temperature: 425 °C • Auto-ignition temperature: Product is not selfigniting. • Explosive properties: Product does not present an explosion hazard. • Explosion limits: 2 Vol % Lower: 2 Vol % Upper: 12 Vol % · Vapour pressure at 20 °C: 43 hPa · Density at 20 °C: 0.98 g/cm ³ · Solubility in / Miscibility with water: Not miscible or difficult to mix. · Viscosity: Dynamic: Dynamic: Not determined. Kinematic at 20 °C: 11 s (DIN 53211/4) · Solvent content: Organic solvents: Organic solvents: 14.4 %		al and chemical properties
Form: Fluid Colour: Colourless Odour: Characteristic • pH-value at 20 °C: 9 • Change in condition Metting point/freezing point: Initial boiling point/freezing point: Undetermined. Initial boiling point/freezing point: Undetermined. Initial boiling point/freezing point: Undetermined. Initial boiling point/freezing point: Valdetermined. Ignition temperature: 425 °C • Ignition temperature: Product is not selfigniting. • Explosive properties: Product does not present an explosion hazard. • Explosion limits: Lower: 2 Vol % Upper: 12 Vol % Vapour pressure at 20 °C: 43 hPa • Density at 20 °C: 0.98 g/cm ³ Solubility in / Miscibility with water: Not miscible or difficult to mix. Viscosity: Dynamic: Not determined. Kinematic at 20 °C: 11 s (DIN 53211/4) • Solvent content: Organic solvents: 14.4 %		
Colour:Colourless CharacteristicpH-value at 20 °C:9• Change in condition Melting point/freezing point:Undetermined. Undetermined. Initial boiling point and boiling range: 82 °C• Flash point:> 55 °C• Ignition temperature:425 °C• Auto-ignition temperature:Product is not selfigniting.• Explosive properties:Product does not present an explosion hazard.• Explosion limits: Lower: Upper:2 Vol % 12 Vol %• Qaour pressure at 20 °C:43 hPa• Density at 20 °C:0.98 g/cm³• Solubility in / Miscibility with water:Not miscible or difficult to mix.• Viscosity: Dynamic: Dynamic: Organic solvents:Not determined. 11 s (DIN 53211/4)• Solvent content: Organic solvents:14.4 %		Fluid
Odour:CharacteristicpH-value at 20 °C:9Change in condition Melting point/freezing point: Initial boiling point and boiling range: 82 °CUndetermined. Initial boiling point and boiling range: 82 °CFlash point:> 55 °CIgnition temperature:425 °CAuto-ignition temperature:Product is not selfigniting.Explosive properties:Product does not present an explosion hazard.Explosion limits: Lower: Upper:2 Vol % 12 Vol %Vapour pressure at 20 °C:0.98 g/cm³Solubility in / Miscibility with water:Not miscible or difficult to mix.Viscosity: Dynamic: Kinematic at 20 °C:11 s (DIN 53211/4)Solvent content: Organic solvents:14.4 %		
Change in condition Undetermined. Initial boiling point and boiling range: 82 °C Flash point: > 55 °C Ignition temperature: 425 °C Auto-ignition temperature: Product is not selfigniting. Explosive properties: Product does not present an explosion hazard. Explosion limits: 2 Vol % Lower: 2 Vol % Upper: 12 Vol % Vapour pressure at 20 °C: 43 hPa Density at 20 °C: 0.98 g/cm³ Solubility in / Miscibility with water: Not miscible or difficult to mix. Viscosity: Not determined. Minematic at 20 °C: 11 s (DIN 53211/4) Solvent content: 14.4 %		Characteristic
Melting point/freezing point: Initial boiling point and boiling range: Undetermined. Initial boiling point and boiling range: 82 °C Flash point: > 55 °C Ignition temperature: 425 °C Auto-ignition temperature: Product is not selfigniting. Explosive properties: Product does not present an explosion hazard. Explosion limits: Lower: Upper: 2 Vol % 12 Vol % Vapour pressure at 20 °C: 43 hPa Density at 20 °C: 0.98 g/cm³ Solubility in / Miscibility with water: Not miscible or difficult to mix. Viscosity: Dynamic: Kinematic at 20 °C: 11 s (DIN 53211/4) Solvent content: Organic solvents: 14.4 %	· pH-value at 20 °C:	9
Ignition temperature: 425 °C Auto-ignition temperature: Product is not selfigniting. Explosive properties: Product does not present an explosion hazard. Explosion limits: 2 Vol % Lower: 2 Vol % Upper: 12 Vol % · Vapour pressure at 20 °C: 43 hPa · Density at 20 °C: 0.98 g/cm³ · Solubility in / Miscibility with water: Not miscible or difficult to mix. · Viscosity: Not determined. Dynamic: 11 s (DIN 53211/4) · Solvent content: 14.4 %	Melting point/freezing point:	
· Auto-ignition temperature: Product is not selfigniting. · Explosive properties: Product does not present an explosion hazard. · Explosion limits: 2 Vol % Lower: 2 Vol % Upper: 12 Vol % · Vapour pressure at 20 °C: 43 hPa · Density at 20 °C: 0.98 g/cm ³ · Solubility in / Miscibility with water: Not miscible or difficult to mix. · Viscosity: Dynamic: Dynamic: 11 s (DIN 53211/4) · Solvent content: 14.4 %	· Flash point:	> 55 °C
• Explosive properties: Product does not present an explosion hazard. • Explosion limits: 2 Vol % Lower: 2 Vol % Upper: 12 Vol % • Vapour pressure at 20 °C: 43 hPa • Density at 20 °C: 0.98 g/cm³ • Solubility in / Miscibility with water: Not miscible or difficult to mix. • Viscosity: Dynamic: Dynamic: Not determined. Kinematic at 20 °C: 11 s (DIN 53211/4) • Solvent content: 14.4 %	Ignition temperature:	425 °C
 Explosion limits: Lower: Upper: 12 Vol % · Vapour pressure at 20 °C: 2 Vol % · Vapour pressure at 20 °C: 2 Vol % · Vapour pressure at 20 °C: 0.98 g/cm³ · Solubility in / Miscibility with water: Not miscible or difficult to mix. · Viscosity: Dynamic: Not determined. Kinematic at 20 °C: 11 s (DIN 53211/4) · Solvent content: Organic solvents: 14.4 % 	· Auto-ignition temperature:	Product is not selfigniting.
Lower: 2 Vol % Upper: 12 Vol % · Vapour pressure at 20 °C: 43 hPa · Density at 20 °C: 0.98 g/cm³ · Solubility in / Miscibility with water: Not miscible or difficult to mix. · Viscosity: Dynamic: Dynamic: Not determined. Kinematic at 20 °C: 11 s (DIN 53211/4) · Solvent content: 14.4 %	Explosive properties:	Product does not present an explosion hazard.
Upper:12 Vol %· Vapour pressure at 20 °C:43 hPa· Density at 20 °C:0.98 g/cm³· Solubility in / Miscibility with water:Not miscible or difficult to mix.· Viscosity: Dynamic: Kinematic at 20 °C:Not determined. 11 s (DIN 53211/4)· Solvent content: Organic solvents:14.4 %		
· Vapour pressure at 20 °C: 43 hPa · Density at 20 °C: 0.98 g/cm ³ · Solubility in / Miscibility with water: Not miscible or difficult to mix. · Viscosity: Not miscible or difficult to mix. · Viscosity: Not determined. Dynamic: Not determined. Kinematic at 20 °C: 11 s (DIN 53211/4) · Solvent content: 14.4 %		
• Density at 20 °C: 0.98 g/cm³ • Solubility in / Miscibility with water: Not miscible or difficult to mix. • Viscosity: Dynamic: Dynamic: Not determined. Kinematic at 20 °C: 11 s (DIN 53211/4) • Solvent content: 0.7ganic solvents:		
 Solubility in / Miscibility with water: Not miscible or difficult to mix. Viscosity: Dynamic: Not determined. Kinematic at 20 °C: 11 s (DIN 53211/4) Solvent content: Organic solvents: 14.4 % 		
water: Not miscible or difficult to mix. · Viscosity:	· <u>Density at 20 °C:</u>	0.98 g/cm ³
 <u>Viscosity:</u> <u>Dynamic:</u> <u>Kinematic at 20 °C:</u> <u>Solvent content:</u> <u>Organic solvents:</u> <u>14.4 %</u> 		
Dynamic: Not determined. Kinematic at 20 °C: 11 s (DIN 53211/4) Solvent content: 14.4 %	water:	Not miscible or difficult to mix.
Kinematic at 20 °C: 11 s (DIN 53211/4) · Solvent content: 0rganic solvents: 04.4 %	· Viscosity:	
Solvent content: Organic solvents: 14.4 %		
Organic solvents: 14.4 %	Kinematic at 20 °C:	11 s (DIN 53211/4)
<u>Water:</u> 71.8 %		
	Water:	71.8 %
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Printing date 06.06.2019

Version number 7

Revision: 06.06.2019

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	Crystal Clean		
		(Contro	d. of pag
Solids co		16.6 %	
• 9.2 Other	information	No further relevant information available.	
SECTION	10: Stability ar	ind reactivity	
· 10.1 Reac		No further relevant information available.	
10.2 Chen	nical stability		
	ecomposition / to be avoided:		
	ibility of hazar		
reactions		Reacts with strong acids.	
	litions to avoid	d No further relevant information available.	
	mpatible mater		
	rdous decomp		
products:		No dangerous decomposition products known.	
SECTION	11: Toxicologi	jical information	
	-		
		icological effects	
Acute toxic		Based on available data, the classification criteria are not met.	
		for classification:	
67-63-0 pr	-		
Oral	LD50	>2,000 mg/kg (rabbit)	
		5,840 mg/kg (rat) (OECD 401)	
	NOAEL-Werte	e 400 mg/kg (rat)	
Dermal	LD50	13,900 mg/kg (rabbit) (OECD 402)	
Inhalative	LC50/8h	47.5 ppm (rat)	
	LC50/4 h	30-46.5 mg/l (rat)	
	LC50	25,000 mg/m3 (rat)	
	LC50/48h	>100 mg/l (Leuciscus idus)	
Alcohols,		oxylated, sulphates, sodium salts	
Oral	LD50	2,001 mg/kg (rat)	
Dermal	LD50	2,001 mg/kg (rat)	
Primary irr			
	sion/irritation	Based on available data, the classification criteria are not met.	
	/e damage/irritat y or skin sensiti		
		ity, mutagenicity and toxicity for reproduction)	
	mutagenicity	Based on available data, the classification criteria are not met.	
		Based on available data, the classification criteria are not met.	
Carcinoge	Reproductive toxicity Based on available data, the classification criteria are not met. STOT-single exposure Based on available data, the classification criteria are not met.		
Carcinoger Reproduct			
Carcinoger Reproduct STOT-sing		Based on available data the classification criteria are not met	
Carcinoger Reproduct STOT-sing	eated exposure		
Carcinoge Reproduct STOT-sing STOT-repe	eated exposure	 Based on available data, the classification criteria are not met. Based on available data, the classification criteria are not met. 	
Carcinoge Reproduct STOT-sing STOT-repe Aspiration	eated exposure	Based on available data, the classification criteria are not met.	

· Aquatic toxicity: 67-63-0 propan-2-ol EC50/24h 9,714 mg/l (daphnia magna)

(Contd. on page 8)

GB

Printing date 06.06.2019

Version number 7

Trade name:	Crystal Clean				
		(Contd. of page 7)			
EC50	>1,000 mg/l (BES)				
LC50/24h	9,714 mg/l (daphnia	magna)			
EC50/15m	in 22,000 mg/l (Photobac. phosphoreum)				
IC50/72h	>1,000 mg/l (Desmodesmus subspicatus)				
EC10/18h	5,175 mg/l (pseudom	nonas putida) (DIN 38412)			
EC50/48h	13,299 mg/l (daphnia	a magna)			
EC50/72h	>1,000 mg/l (green a	lge)			
	>100 mg/l (Scenede	smus subspicatus)			
LC50/96h	6,550 mg/l (piscis)				
	9,640 mg/l (Pimepha	les promelas)			
Alcohols,	, C12-C14, ethoxylated,	sulphates, sodium salts			
EC50/48h	7.4 mg/l (daphnia ma	agna)			
EC50/72h	27 mg/l (Scenedesm	us subspicatus)			
LC50/96h	7.1 mg/l (Brachydani	o rerio)			
· 12.2 Pers	istence and				
degradab		No further relevant information available.			
	ccumulative potential ility in soil	No further relevant information available. No further relevant information available.			
	ecological information:				
· General n		Do not allow undiluted product or large quantities of it to reach ground water,			
		water course or sewage system.			
		Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water			
. 12 5 Rosi	ults of PBT and vPvB as				
· PBT:		Not applicable.			
· vPvB:		Not applicable.			
· <u>12.6 Othe</u>	er adverse effects	No further relevant information available.			
SECTION	13: Disposal consider	ations			
	-				
	te treatment methods	Small amounts may be diluted with planty of water and weeked away. Diapage			
· <u>Recomme</u>	Indation	Small amounts may be diluted with plenty of water and washed away. Dispose of bigger amounts in accordance with Local Authority requirements.			
		Smaller quantities can be disposed of with household waste.			
· European	waste catalogue	· · ·			
20 00 00		(HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND			
	INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS				
20 01 00					
20 01 29*					
15 00 00	CLOTHING NOT OTHERWISE SPECIFIED				
15 01 00	packaging (including se	parately collected municipal packaging waste)			
15 01 02	15 01 02 plastic packaging				
Uncleaned	d packaging:				
· Recomme		Empty contaminated packagings thoroughly. They may be recycled after			
		thorough and proper cleaning.			
		(Contd. on page 9)			



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Safety data sheet according to 1907/2006/EC, Article 31



Printing date 06.06.2019

Version number 7

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SECTION 14: Transport information	
14.1 UN-Number ADR, IMDG, IATA	UN1993
14.2 UN proper shipping name ADR IMDG, IATA	1993 FLAMMABLE LIQUID, N.O.S. (ISOPROPAN (ISOPROPYL ALCOHOL)) FLAMMABLE LIQUID, N.O.S. (ISOPROPANOL (ISOPROF
	ALCOHOL))
14.3 Transport hazard class(es)	
ADR	
<u>Class</u> Label	3 (F1) Flammable liquids. 3
IMDG, IATA	5
Class Label	3 Flammable liquids. 3
14.4 Packing group	
ADR, IMDG, IATA	
14.5 Environmental hazards: Marine pollutant:	No
14.6 Special precautions for user	Warning: Flammable liquids.
Danger code (Kemler):	30
EMS Number:	F-E, <u>S-E</u>
Stowage Category	A
14.7 Transport in bulk according to Ann Marpol and the IBC Code	Not applicable.
Transport/Additional information:	The second se
ADR	
Limited quantities (LQ)	5L
Excepted quantities (EQ)	Code: E1 Maximum pat quantity par inpar packaging: 20 ml
	Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
Transport category	3
Tunnel restriction code	D/E
IMDG	
Limited quantities (LQ) Excepted quantities (EQ)	5L Code: E1
	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 1000 ml

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 06.06.2019

Version number 7

Revision: 06.06.2019

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	(Contd. of page 9)
· <u>UN</u> "Model Regulation":	UN 1993 FLAMMABLE LIQUID, N.O.S. (ISOPROPANOL (ISOPROPYL ALCOHOL)), 3, III
SECTION 15: Regulatory information	
\cdot 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture	
 Directive 2012/18/EU Named dangerous substances - ANNEX I Seveso category 	None of the ingredients is listed. P5c FLAMMABLE LIQUIDS
Qualifying quantity (tonnes) for the application of lower-tier requirements	5,000 t
Qualifying quantity (tonnes) for the application of upper-tier requirements REGULATION (EC) No 1907/2006	50,000 t
ANNEX XVII	Conditions of restriction: 3
National regulations:	
Waterhazard class: VOC EU	Water hazard class 1 (Self-assessment): slightly hazardous for water. 140.4 g/l
 <u>15.2 Chemical safety</u> assessment: 	A Chemical Safety Assessment has not been carried out.
SECTION 16: Other information This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.	
· <u>Relevant phrases</u>	H225 Highly flammable liquid and vapour. H315 Causes skin irritation. H318 Causes serious eye damage. H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

refer to Technical Data Sheet (TDS)

H412 Harmful to aquatic life with long lasting effects.

· Recommended restriction of use

· Department issuing SDS:

· Contact:

· Abbreviations and acronyms:

Laboratory Dieter Zimmermann ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) IMDG: International Maritime Code for Dangerous Goods IATA: International Air Transport Association GHS: Globally Harmonised System of Classification and Labelling of Chemicals EINECS: European Inventory of Existing Commercial Chemical Substances ELINCS: European List of Notified Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society) DNEL: Derived No-Effect Level (REACH) PNEC: Predicted No-Effect Concentration (REACH) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative Flam. Liq. 2: Flammable liquids - Category 2 Flam. Liq. 3: Flammable liquids - Category 3 Skin Irrit. 2: Skin corrosion/irritation - Category 2 Eye Dam. 1: Serious eye damage/eye irritation – Category 1 Eye Irrit. 2: Serious eye damage/eye irritation – Category 2 STOT SE 3: Specific target organ toxicity (single exposure) - Category 3 Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard - Category 3 (Contd. on page 11)

Printing date 06.06.2019

Version number 7

Revision: 06.06.2019

(Contd. of page 10)

GB

Trade name: Crystal Clean

 \cdot * Data compared to the previous

version altered.

Adaptation in accordance with REACH directive 1907/2006/EC

