Safety Data Sheet

according to Regulation (EC) No. 453/2010

Date of issue: 25/01/2011 Revision date: 22/01/2014

Supersedes: 14/05/2013 Version: 4.0

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



## **Product identifier** 1.1. Product form : Mixture Product name : CR7 Guthega Yellow 1.2. Relevant identified uses of the substance or mixture and uses advised against 1.2.1. **Relevant identified uses** Use of the substance/mixture : Inkjet printing Uses advised against 1.2.2. No additional information available 1.3. Details of the supplier of the safety data sheet Memjet Ltd. (formerly Memjet Operations, Ltd.) 61-62 Fitzwilliam Lane Dublin 2 - Ireland T +1-858-798-3000 - F +1-858-798-3044 msds@memjet.com - www.memjet.com 1.4. **Emergency telephone number** Emergency number : CHEMTREC, U.S.: 1-800-424-9300 International: +1-703-527-3887 Hours of Operation: 24/7 SECTION 2: Hazards identification Classification of the substance or mixture 21 Classification according to Regulation (EC) No. 1272/2008 [CLP] Eye Irrit. 2 H319 STOT RF 2 H373 Full text of H-phrases: see section 16 Classification according to Directive 67/548/EEC or 1999/45/EC Xi; R36 Full text of R-phrases: see section 16 Adverse physicochemical, human health and environmental effects Causes serious eye irritation. May cause damage to organs through prolonged or repeated exposure. 2.2. Label elements Labelling according to Regulation (EC) No. 1272/2008 [CLP] Hazard pictograms (CLP) GHS07 GHS08 Signal word (CLP) : Warning Hazard statements (CLP) : H319 - Causes serious eye irritation H373 - May cause damage to organs through prolonged or repeated exposure Precautionary statements (CLP) : P260 - Do not breathe mist/vapours/spray P264 - Wash hands thoroughly after handling P280 - Wear protective gloves/protective clothing/eye protection/face protection P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing P314 - Get medical advice/attention if you feel unwell P337+P313 - If eye irritation persists: Get medical advice/attention P501 - Dispose of contents/container in accordance with local and national regulations : EUH208 - Contains 1,2-benzisothiazolone(2634-33-5). May produce an allergic reaction EUH phrases 22/01/2014 EN (English) SDS Ref.: memjet 1300003

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## 2.3. Other hazards

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

## **SECTION 3: Composition/information on ingredients**

## 3.1. Substances

Not applicable

## 3.2. Mixture

Name	Product identifier	%	Classification according to Directive 67/548/EEC	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Water	(CAS No) 7732-18-5 (EC no) 231-791-2	73.65	Not classified	Not classified
Ethylene glycol	(CAS No) 107-21-1 (EC no) 203-473-3 (EC index no) 603-027-00-1	10	Xn; R22	Acute Tox. 4 (Oral), H302 STOT RE 2, H373
2-pyrrolidone	(CAS No) 616-45-5 (EC no) 210-483-1	9	Xi; R36	Eye Irrit. 2, H319
Glycerol	(CAS No) 56-81-5 (EC no) 200-289-5	3	Not classified	Not classified
1,3'-Bipyridinium, 3-carboxy-5'-[2-(2- carboxy-4-sulfophenyl)diazenyl]- 1',2'-dihydro-6'-hydroxy-4'-methyl-2'- oxo-, inner salt, lithium sodium salt	(CAS No) 388582-18-1	3	Not classified	Acute Tox. 4 (Oral), H302
2,4,7,9-Tetramethyl-5-decyne-4,7- diol ethoxylate	(CAS No) 9014-85-1 (EC no) 500-022-5	1	Xi; R41 Xi; R38	Eye Dam. 1, H318 Aquatic Chronic 3, H412
MOPS	(CAS No) 1132-61-2 (EC no) 214-478-5	0.2	Xi; R36/38	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335
1,2-benzisothiazolone	(CAS No) 2634-33-5 (EC no) 220-120-9 (EC index no) 613-088-00-6	0.02895	Xn; R22 Xi; R41 Xi; R38 R43 N; R50	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Acute 1, H400

Full text of R-, H- and EUH-phrases: see section 16

## **SECTION 4: First aid measures**

4.1. Description of first aid measures	
First-aid measures after inhalation	If inhaled and if breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. When symptoms occur: go into open air and ventilate suspected area If you feel unwell, seek medical advice.
First-aid measures after skin contact	Gently wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing before reuse. Destroy contaminated shoes. If skin irritation occurs: Get immediate medical advice/attention.
First-aid measures after eye contact	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if pain, blinking or redness persist.
First-aid measures after ingestion	If swallowed, rinse mouth with water (only if the person is conscious). Never give liquid to an unconscious person. Do NOT induce vomiting unless directed to do so by medical personnel. If symptoms persist, contact a doctor or physician.
4.2. Most important symptoms and effect	, both acute and delayed
Symptoms/injuries	May cause damage to organs (through prolonged or repeated exposure).
Symptoms/injuries after inhalation	Inhalation may cause: irritation, coughing, shortness of breath. Exposure to decomposition products may cause serious health effects.
Symptoms/injuries after skin contact	No significant signs or symptoms indicative of any health hazard are expected to occur as a result of skin contact.
Symptoms/injuries after eye contact	Causes serious eye irritation.
Symptoms/injuries after ingestion	No significant signs or symptoms indicative of any adverse health hazard are expected to occur as a result of ingestion.
4.3. Indication of any immediate medical	ttention and special treatment needed

All treatments should be based on observed signs and symptoms of distress in the patient.

## **SECTION 5: Firefighting measures**

5.1. Extinguishing media	
Suitable extinguishing media	: Carbon dioxide (CO2), powder, alcohol-resistant foam, water fog. Use extinguishing media appropriate for surrounding fire.
Unsuitable extinguishing media	: None known.

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5.2. Special hazards arising from the substance or mixture			
Fire hazard	: No specific fire or explosion hazard.		
Explosion hazard	: Product is not explosive.		
5.3. Advice for firefighters			
Firefighting instructions	: Exercise caution when fighting any chemical fire. Use extinguishing media appropriate for surrounding fire.		
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection. Wear fire/flame resistant/retardant clothing. Use self-contained breathing apparatus. EN469.		

## **SECTION 6: Accidental release measures**

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

### 6.1.1. For non-emergency personnel Protective equipment : Avoid contact with skin and eyes. Wear suitable gloves. butyl rubber gloves. natural rubber gloves. Emergency procedures : Evacuate unnecessary personnel. Stop leak without risks if possible. 6.1.2. For emergency responders Protective equipment : Avoid all eyes and skin contact and do not breathe vapour and mist. Wear suitable gloves. butyl rubber. Use splash goggles when eye contact due to splashing is possible. : Stop leak if safe to do so. If a major spill occurs, all personnel should be immediately evacuated Emergency procedures and the area ventilated. 6.2. **Environmental precautions**

Do not discharge into drains or the environment.

6.3. Methods and material for contain	nment and cleaning up
For containment	: Absorb and/or contain spill with inert material, then place in suitable container. Do not allow minor leaks or spills to accumulate on walking surfaces.
Methods for cleaning up	: Small quantities of liquid spill: take up in non-combustible absorbent material and shovel into container for disposal. This material and its container must be disposed of in a safe way, and as per local legislation.
6.4. Reference to other sections	

Section 7: safe handling. Section 8: personal protective equipment. Section 13: disposal information.

## **SECTION 7: Handling and storage**

### 7.1 Precautions for safe handling

7.1. Precautions for safe handling	
Precautions for safe handling	: Avoid all eyes and skin contact and do not breathe vapour and mist. Use personal protective equipment as required. Do not eat, drink or smoke when using this product. Emptied container retains vapor and product residue.
Hygiene measures	: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.
7.2. Conditions for safe storage, inclu	ding any incompatibilities
Storage conditions	: Store in original container. Keep container tightly closed and in a well-ventilated place. Protect

 Store in original container. Keep container tightly closed and in a well-ventilated place. Protect against heat and light. Store in an area with secondary containment.

## 7.3. Specific end use(s)

Inkjet printing.

## **SECTION 8: Exposure controls/personal protection**

## 8.1. Control parameters

Ethylene glycol (107-21-1)		
EU	IOELV TWA (mg/m³)	52 mg/m <sup>3</sup>
EU	IOELV TWA (ppm)	20 ppm
EU	IOELV STEL (mg/m³)	104 mg/m³
EU	IOELV STEL (ppm)	40 ppm
Austria	MAK (mg/m³)	26 mg/m <sup>3</sup> (H)
Austria	MAK (ppm)	10 ppm (H)
Austria	MAK Short time value (mg/m³)	52 mg/m <sup>3</sup> max. 8x5 min./Schicht (gemessen als Momentanwert), (H)
Austria	MAK Short time value (ppm)	20 ppm max. 8x5 min./Schicht (gemessen als Momentanwert), (H)
Belgium	Limit value (mg/m <sup>3</sup> )	52 mg/m <sup>3</sup>
Belgium	Limit value (ppm)	20 ppm
Belgium	Remark*	D, M "(en aérosol)"

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Ethylene glycol (107-21-1)		
France	VLE (mg/m <sup>3</sup> )	104 mg/m <sup>3</sup>
France	VLE (ppm)	40 ppm
France	VME (mg/m³)	52 mg/m <sup>3</sup>
France	VME (ppm)	20 ppm
Germany	TRGS 900 Occupational exposure limit value (mg/m <sup>3</sup> )	26 mg/m <sup>3</sup>
Germany	TRGS 900 Occupational exposure limit value (ppm)	10 ppm
Germany	Remark (TRGS 900)	Н
Italy - Portugal - USA ACGIH	ACGIH Ceiling (mg/m <sup>3</sup> )	100 mg/m <sup>3</sup>
Italy - Portugal - USA ACGIH	ACGIH Ceiling (ppm)	39.4 ppm
Italy - Portugal - USA ACGIH	Remark (ACGIH)	Н
USA NIOSH	NIOSH REL (ceiling) (ppm)	50 ppm
Spain	VLA-ED (mg/m³)	52 mg/m <sup>3</sup>
Spain	VLA-ED (ppm)	20 ppm
Spain	VLA-EC (mg/m³)	104 mg/m³
Spain	VLA-EC (ppm)	40 ppm
Spain	Notes	vía dérmica,VLI
Switzerland	VLE (mg/m <sup>3</sup> )	52 mg/m <sup>3</sup>
Switzerland	VLE (ppm)	20 ppm
Switzerland	VME (mg/m³)	26 mg/m <sup>3</sup>
Switzerland	VME (ppm)	10 ppm
The Netherlands	MAC TGG 8H (mg/m <sup>3</sup> )	52 mg/m³ (vapour) 10 mg/m³ (particulate)
The Netherlands	MAC TGG 15MIN (mg/m <sup>3</sup> )	104 mg/m³ (vapour)
United Kingdom	WEL TWA (mg/m³)	52 mg/m³ (vapour, Sk) 10 mg/m³ (Sk)
United Kingdom	WEL TWA (ppm)	20 ppm (vapour, Sk)
United Kingdom	WEL STEL (mg/m <sup>3</sup> )	104 mg/m³ (vapour, Sk)
United Kingdom	WEL STEL (ppm)	40 ppm (vapour, Sk)
Czech Republic	Expoziční limity (PEL) (mg/m3)	50 mg/m³
Czech Republic	Expoziční limity (PEL) (ppm)	19.7 ppm
Czech Republic	Expoziční limity (NPK-P) (mg/m3)	100 mg/m³
Czech Republic	Expoziční limity (NPK-P) (ppm)	39.4 ppm
Czech Republic	Remark (CZ)	D
Denmark	Grænseværdie (langvarig) (mg/m3)	10 mg/m³ (forstøvet) 26 mg/m³ H
Denmark	Grænseværdie (langvarig) (ppm)	10 ppm H
Denmark	Grænseværdie (kortvarig) (mg/m3)	20 mg/m <sup>3</sup> (forstøvet) 52 mg/m <sup>3</sup> H
Denmark	Grænseværdie (kortvarig) (ppm)	20 ppm H
Finland	HTP-arvo (8h) (mg/m3)	50 mg/m <sup>3</sup>
Finland	HTP-arvo (8h) (ppm)	20 ppm
Finland	HTP-arvo (15 min)	100 mg/m <sup>3</sup>
Finland	HTP-arvo (15 min) (ppm)	40 ppm
Finland	Huomautus (FI)	iho
Hungary	AK-érték	52 mg/m <sup>3</sup>
Hungary	CK-érték	104 mg/m <sup>3</sup>
Ireland	OEL (8 hours ref) (mg/m3)	10 mg/m³ particulate; Sk, IOELV 52 mg/m³ vapour; Sk, IOELV
Ireland	OEL (8 hours ref) (ppm)	20 ppm vapour; Sk, IOELV
Ireland	OEL (15 min ref) (mg/m3)	104 mg/m <sup>3</sup> vapour; Sk, IOELV
Ireland	OEL (15 min ref) (ppm)	40 ppm vapour; Sk, IOELV
Lithuania	IPRV (mg/m3)	25 mg/m <sup>3</sup>
Lithuania	IPRV (ppm)	10 ppm
Lithuania	TPRV (mg/m3)	50 mg/m <sup>3</sup>

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Ethylene glycol (107-21-1)			
Lithuania	TPRV	(ppm)	20 ppm
Lithuania	Rema	rk (LT)	O; Đi RV taikoma bendrai garø ir aerozolio koncentracijai.
Norway	Gjennomsnittsverdier (AN) (mg/m3)		10 mg/m³ (Støv, H 1)
Norway	Gjenn	omsnittsverdier (Takverdi) (ppm)	25 ppm (Damp, H)
Poland	-	(mg/m3)	15 mg/m <sup>3</sup>
Poland		Ch (mg/m3)	50 mg/m <sup>3</sup>
Slovakia		( (priemerná) (mg/m3)	52 mg/m <sup>3</sup>
Slovakia		( (priemerná) (ppm)	20 ppm
Slovakia		ornenie (SK)	(К)
Sweden	nivågr	änsvärde (NVG) (mg/m3)	25 mg/m³
Sweden	nivågr	änsvärde (NVG) (ppm)	10 ppm
Sweden	kortide	svärde (KTV) (mg/m3)	50 mg/m <sup>3</sup>
Sweden	kortide	svärde (KTV) (ppm)	20 ppm
Sweden	Anmä	rkning (SE)	H 27
Canada (Quebec)		OND (mg/m <sup>3</sup> )	127 mg/m <sup>3</sup>
Canada (Quebec)		OND (ppm)	50 ppm
Australia		(mg/m³)	52 mg/m <sup>3</sup> (vapour)
Australia	T A / A		10 mg/m <sup>3</sup> (particulate)
Australia Australia	TWA	(ppm) (mg/m³)	20 ppm (vapour) 104 mg/m <sup>3</sup> (vapour)
Australia	STEL		40 ppm (vapour)
Ethylene glycol (107-21-1)	OILE	(ppiii)	
DNEL/DMEL (Workers) Long-term - systemic effects,		106 mg/kg bodyweight/day	
Long-term - local effects, inha		35 mg/m³	
DNEL/DMEL (General popula		50 m m/l m h a drava indut/days	
		53 mg/kg bodyweight/day 7 mg/m <sup>3</sup>	
PNEC (Water)	alation	/ mg/m-	
PNEC aqua (freshwater)		10 mg/l	
PNEC aqua (marine water)		1 mg/l	
PNEC aqua (intermittent, fres	shwater)	10 mg/l	
PNEC (Sediment)			
PNEC sediment (freshwater)		37 mg/kg dwt	
PNEC sediment (marine wate	er)	3.7 mg/kg dwt	
PNEC (Soil) PNEC soil		1.53 mg/kg dwt	
PNEC (STP)			
PNEC sewage treatment plar	nt	199.5 mg/l	
Glycerol (56-81-5)			
Belgium	Limit v	value (mg/m³)	10 mg/m <sup>3</sup>
Belgium	Rema		(brouillard)
France	VME (	(mg/m³)	10 mg/m <sup>3</sup>
France	Note (		(aérosols de)
Italy - Portugal - USA ACGIH	_	H TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
USA OSHA		NPEL (TWA) (mg/m3)	15 mg/m <sup>3</sup> (total) 5 mg/m <sup>3</sup> (respirable fraction)
Spain		ED (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
Switzerland		mg/m³)	100 mg/m <sup>3</sup>
Switzerland	_	(mg/m <sup>3</sup> )	50 mg/m <sup>3</sup>
Switzerland United Kingdom	_	rk (CH)	(inhalable aerosol) 10 mg/m <sup>3</sup>
	WEL TWA (mg/m <sup>3</sup> )		
Czech Republic	Exno7	tiční limity (PEL) (mg/m3)	10 mg/m <sup>3</sup>

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Glycerol (56-81-5)		
Czech Republic	Expoziční limity (NPK-P) (mg/m3)	15 mg/m³
Czech Republic	Expoziční limity (NPK-P) (ppm)	3.66 ppm
Finland	HTP-arvo (8h) (mg/m3)	20 mg/m <sup>3</sup>
Ireland	OEL (8 hours ref) (mg/m3)	10 mg/m³
Poland	NDS (mg/m3)	10 mg/m³
Slovakia	NPHV (priemerná) (mg/m3)	10 mg/m³
Canada (Quebec)	VEMP (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>

## 8.2. Exposure controls

Appropriate engineering controls	: Avoid splashing. No special work practices are needed beyond the above recommendations under anticipated conditions of normal use.
Hand protection	: Wear suitable gloves resistant to chemical penetration. butyl rubber gloves. natural rubber gloves. EN 374.
Eye protection	: Safety glasses with side guards should be worn to prevent injury from airborne particles and/or other eye contact with this product. Use splash goggles when eye contact due to splashing is possible. EN 166.
Respiratory protection	<ul> <li>Use air-purifying respirator equipped with particulate filtering cartridges. In case of insufficient ventilation, wear suitable respiratory equipment. EN 12083.</li> </ul>
Environmental exposure controls	: Emissions from ventilation or work process equipment should be checked to ensure they comply with requirements of environmental protection legislation. In some cases, fume scrubbers, filters, or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

## **SECTION 9: Physical and chemical properties**

## 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Semi-opaque.
Colour	: Yellow.
Odour	: No data available
Odour threshold	: No data available
рН	: 6.5 - 7.5
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: > 90 °C
Flash point	: > 93.3 °C (Pensky-Martens closed cup)
Self ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: No data available
Relative vapour density at 20 °C	: > 1 (Air = 1)
Relative density	: 1 - 1.1
Relative density of saturated gas/air mixture	: 1 - 1.1
Solubility	: Soluble in water.
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: 1.7 - 2.1
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available
9.2. Other information	
VOC content	: 0%

## **SECTION 10: Stability and reactivity**

## 10.1. Reactivity

Hazardous polymerization will not occur.

## 10.2. Chemical stability

The product is stable at normal handling and storage conditions.

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## 10.3. Possibility of hazardous reactions

Under normal conditions of storage and use, hazardous reactions will not occur.

## 10.4. Conditions to avoid

Do not store with incompatible materials.

## 10.5. Incompatible materials

Oxidizing agent.

## 10.6. Hazardous decomposition products

Under fire conditions, hazardous fumes will be present.

## **SECTION 11: Toxicological information**

## 11.1. Information on toxicological effects

Acute toxicity	: Based on available data, the classification criteria are not met	
CR7 Guthega Yellow		
LD50 oral rat	> 30000 mg/kg Calculated	
LD50 dermal rabbit	> 12000 mg/kg Calculated	
LC50 inhalation rat (Dust/Mist - mg/l/4h)	> 20 mg/l/4h Calculated	
Ethylene glycol (107-21-1)		
LD50 oral rat	7712 mg/kg	
LD50 dermal rat	> 3500 mg/kg mouse	
LC50 inhalation rat (mg/l)	> 2.5 mg/l/4h	
ATE (oral)	500.000 mg/kg bodyweight	
2-pyrrolidone (616-45-5)		
LD50 oral rat	5000 mg/kg	
LD50 dermal rabbit	> 2000 mg/kg	
LC50 inhalation rat (mg/l)	> 20 mg/l/4h	
ATE (oral)	5000.000 mg/kg bodyweight	
2,4,7,9-Tetramethyl-5-decyne-4,7-diol ethoxylate (9014-85-1)		
LD50 oral rat	> 5000 mg/kg	
LD50 dermal rat	> 2000 mg/kg	
LC50 inhalation rat (mg/l)	> 2 mg/l/4h	
Skin corrosion/irritation	: Based on available data, the classification criteria are not met	
	pH: 6.5 - 7.5	
Serious eye damage/irritation	: Causes serious eye irritation.	
	pH: 6.5 - 7.5	
Respiratory or skin sensitisation	Based on available data, the classification criteria are not met	
Germ cell mutagenicity	: Based on available data, the classification criteria are not met	
Carcinogenicity	: Based on available data, the classification criteria are not met	
Reproductive toxicity	: Based on available data, the classification criteria are not met	
Specific target organ toxicity (single exposure)	: Based on available data, the classification criteria are not met	
Specific target organ toxicity (repeated exposure)	: May cause damage to organs through prolonged or repeated exposure.	
Ethylene glycol (107-21-1)		
NOAEL (oral,rat,90 days)	150 mg/kg bodyweight/day kidney	
2-pyrrolidone (616-45-5)		
NOAEL (oral,rat,90 days)	207 mg/kg bodyweight/day The kidneys were the most affected organs.	
2,4,7,9-Tetramethyl-5-decyne-4,7-diol ethoxyla	ate (9014-85-1)	
NOAEL (subacute,oral, animal/male,28 days)	200 mg/kg bodyweight	

Aspiration hazard

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

## **SECTION 12: Ecological information**

## 12.1. Toxicity

Ethylene glycol (107-21-1)	
LC50 fishes 1	72860 mg/l Pimephales promelas
EC50 Daphnia 1	> 100 mg/l
NOEC chronic fish	15380 mg/l Pimephales promelas

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Ethylene glycol (107-21-1)		
NOEC chronic crustacea	8590 mg/l Ceriodaphnia sp.	
2-pyrrolidone (616-45-5)		
LC50 fishes 1	> 4600 (4600 - 10000) mg/l 96 hr. Danio rerio	
EC50 Daphnia 1	> 500 mg/l	
ErC50 (algae)	> 500 mg/l	
NOEC (acute)	4640 mg/l	
2,4,7,9-Tetramethyl-5-decyne-4,7-diol ethoxylate (9014-85-1)		
LC50 fishes 1	52.5 mg/l juvenile S. maximus	
EC50 Daphnia 1	166 mg/l	
ErC50 (algae)	15 mg/l	
NOEC chronic algae	1 mg/l	

## 12.2. Persistence and degradability

CR7 Guthega Yellow		
Persistence and degradability	Not expected to persist.	
Ethylene glycol (107-21-1)		
Persistence and degradability	Readily biodegradable.	
2-pyrrolidone (616-45-5)		
Persistence and degradability	Readily biodegradable.	
2,4,7,9-Tetramethyl-5-decyne-4,7-diol ethoxylate (9014-85-1)		
Persistence and degradability	Not readily biodegradable.	

## 12.3. Bioaccumulative potential

CR7 Guthega Yellow		
Bioaccumulative potential	Not expected to bioaccumulate.	
Ethylene glycol (107-21-1)		
Log Pow	- 1.36	
Bioaccumulative potential	Not expected to bioaccumulate.	
2-pyrrolidone (616-45-5)		
Bioconcentration factor (BCF REACH)	3.16	
Log Pow	- 0.32	
Bioaccumulative potential	Not expected to bioaccumulate.	
2,4,7,9-Tetramethyl-5-decyne-4,7-diol ethoxylate (9014-85-1)		
Bioconcentration factor (BCF REACH)	< 24	
Bioaccumulative potential	Not expected to bioaccumulate.	

## 12.4. Mobility in soil

No additional information available

## 12.5. Results of PBT and vPvB assessment

CR7 Guthega Yellow	
This substance/mixture does not meet the PBT criteria of REACH, annex XIII.	
This substance/mixture does not meet the vPvB criteria of REACH, annex XIII.	

12.6. Other adverse effects

: Avoid release to the environment

: No other effects known.

## **SECTION 13: Disposal considerations**

## 13.1. Waste treatment methods

Waste treatment methods

: Do not dispose in household garbage. Dispose in a safe manner in accordance with local/national regulations. Significant quantities of waste product residues should be processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor.

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## **SECTION 14: Transport information**

In accordance with ADR / RID / ADNR / IMDG / ICAO / IATA

## 14.1. UN number

Not a dangerous good in sense of transport regulations

14.2. UN proper shipping name

Not applicable

14.3. Transport hazard class(es)

Not applicable

14.4. Packing group

Not applicable

## 14.5. Environmental hazards

Dangerous for the environment: NoMarine pollutant: NoOther information: No supplementary information available.

## 14.6. Special precautions for user

## 14.6.1. Overland transport

No additional information available

## 14.6.2. Transport by sea

No additional information available

## 14.6.3. Air transport

No additional information available

## 14.6.4. Inland waterway transport

No additional information available

## 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable

## **SECTION 15: Regulatory information**

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

## 15.1.1. EU-Regulations

No REACH Annex XVII restrictions	
Contains no REACH candidate substance	
VOC content	: 0%
Other regulations, restrictions and prohibition regulations	: Contains no substances on the IPCC Water List.
	Contains no substances on the IPPC Air List.
	Annex XVII is not applicable for any constituents under the defined use.
	Contains no REACH Annex XIV substances.

## 15.1.2. National regulations

Components are listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)- EEC Directive 79/831, sixth Amendment of the directive 67/548 (dangerous substances).

## 15.2. Chemical safety assessment

This product contains substances for which Chemical Safety Assessments are still required.

## SECTION 16: Other information

Indication of changes: GHS classification information. Composition update. Revised sections: 1 - 16.

# **CR7 Guthega Yellow** Safety Data Sheet according to Regulation (EC) No. 453/2010

Data sources	: Chemical Risk Information Platform (CHRIP).
	ESIS (European Chemical Substances Information System; accessed at: http://esis.jrc.ec.europa.eu/index.php?PGM=cla.
	Chemical Inspection & Regulation Service; accessed at: http://www.cirs- reach.com/Inventory/Global_Chemical_Inventories.html.
	European Chemicals Agency (ECHA) C&L Inventory database. Accessed at http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database.
	European Chemicals Agency (ECHA) Registered Substances list. Accessed at http://echa.europa.eu/.
	European Standards: Personal Protective Equipment; accessed at: http://ec.europa.eu/enterprise/policies/european-standards/harmonised-standards/personal- protective-equipment/index_en.htm.
	Incorporated Administrative Agency National Institute of Technology and Evaluation (NITE).
	The Organisation for Economic Co-operation and Development (OECD; eChemPortal chemical searches. Accessed at
	http://www.echemportal.org/echemportal/substancesearch/substancesearchlink.action.
	Krister Forsberg and S.Z. Mansdorf, "Quick Selection Guide to Chemical Protective Clothing", Fifth Edition.
	National Fire Protection Association; Fire Protection Guide to Hazardous Materials; 10th edition.
	US National Library of Medicine National Institutes of Health Haz-Map. Accessed at http://hazmap.nlm.nih.gov.
Abbreviations and acronyms	: ATE: Acute Toxicity Estimate.
	CAS (Chemical Abstracts Service) number.
	DNEL: Derived No Effect Level.
	EC50: Environmental Concentration associated with a response by 50% of the test population.
	GHS: Globally Harmonized System (of Classification and Labeling of Chemicals).
	IPPC: Integrated Pollution Prevention and Control.
	LD50: Lethal Dose for 50% of the test population.
	PNEC: Predicted No Effect Level.
	PBT: Persistent, Bioaccumulative, Toxic.
	STEL: Short Term Exposure Limits.
	TSCA: Toxic Substances Control Act.
	TWA: Time Weight Average.

## Full text of R-, H- and EUH-phrases:

Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4	
Aquatic Acute 1	Hazardous to the aquatic environment - Acute Hazard Category 1	
Aquatic Chronic 3	Hazardous to the aquatic environment - Chronic Hazard Category 3	
Eye Dam. 1	Serious eye damage/eye irritation Category 1	
Eye Irrit. 2	Serious eye damage/eye irritation Category 2	
Skin Irrit. 2	skin corrosion/irritation Category 2	
Skin Sens. 1	Skin sensitisation Category 1	
STOT RE 2	Specific target organ toxicity (repeated exposure) Category 2	
STOT SE 3	Specific target organ toxicity (single exposure) Category 3	
H302	Harmful if swallowed	
H315	Causes skin irritation	
H317	May cause an allergic skin reaction	
H318	Causes serious eye damage	
H319	Causes serious eye irritation	
H335	May cause respiratory irritation	
H373	May cause damage to organs through prolonged or repeated exposure	
H400	Very toxic to aquatic life	
H412	Harmful to aquatic life with long lasting effects	
R22	Harmful if swallowed.	
R36	Irritating to eyes.	
R36/38	Irritating to eyes and skin.	
R38	Irritating to skin.	
R41	Risk of serious damage to eyes.	
R43	May cause sensitisation by skin contact.	
R50	Very toxic to aquatic organisms.	
Ν	Dangerous for the environment	
22/01/2014	EN (English) SDS Ref.: memjet_1300003	10/11

## Safety Data Sheet

according to Regulation (EC) No. 453/2010

Xi	Irritant
Xn	Harmful.

SDS EU (REACH Annex II)

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This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.