SAFETY DATA SHEET

According to EC Regulation 1907/2006/EC - revision 2015/830

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SECTION 1. IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

1.1. Product identifier Product Name Product Code

PM MEGA CRYL (PART A) EP_0956P1G M2 (CLP)

1.2. Relevant identified uses of the substance or mixture and uses advised against <u>Recommended use</u> Adhesive.

1.3. Details of the supplier of the safety data sheet

 NCH (UK) Ltd NCH House Springvale Avenue Bilston WV14 0QL Tel: 01902 510200

 NCH Ireland Ltd. The Brewery Business Park, Ardee Road Dundalk, County Louth, Tel: 042 9395500

 E-mail address
 technical_uk@nch.com

 Website address
 www.ncheurope.com

1.4. Emergency telephone number

01902 510331 (available during Office Hours)

SECTION 2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP/GHS) and its adaptations

Flammable liquid: Category 2 Skin irritation: Category 2 Skin sensitisation: Category 1 Eye irritation: Category 2 STOT- single exposure: Category 3 H225 - Highly flammable liquid and vapour H315 - Causes skin irritation H317 - May cause an allergic skin reaction H319 - Causes serious eye irritation H335 - May cause respiratory irritation

2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008 (CLP/GHS) Contains GLYCIDYL METHACRYLATE METHYL METHACRYLATE 2-HYDROXYETHYL METHACRYLATE alpha, alpha DIMETHYLBENZYL HYDROPEROXIDE Hazard pictograms



Hazard Statements

H225 - Highly flammable liquid and vapour

H315 - Causes skin irritation

H317 - May cause an allergic skin reaction

H319 - Causes serious eye irritation

H335 - May cause respiratory irritation

Precautionary Statements

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking

P271 - Use only outdoors or in a well-ventilated area

P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P337 + P313 - If eye irritation persists: Get medical advice/attention

P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention

P280 - Wear protective gloves/protective clothing/eye protection.

For industrial and institutional use only.

Keep out of reach of children.

2.3. Other hazards

No additional hazards identified.

The components in this formulation do not meet the criteria for classification as PBT or vPvB. As defined under the regulation EC 1907/2006.

SECTION 3. COMPOSITION / INFORMATION OF INGREDIENTS

3.2 Mixture

3.2 Mixture Component	CAS-No.	EC No.	EU - REACH reg number	Weight percent		EU - GHS/CLP Classificatio n	Notes
METHYL METHACRYLATE	80-62-6	201-297-1	01-21194524 98-28	50 - 100	Xi; R37/38 R43	Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Skin Sens. 1 (H317) STOT SE 3 (H335) Flam. Liq. 2 (H225)	-
2-HYDROXYETHYL METHACRYLATE	868-77-9	212-782-2	01-21194901 69-29	10 - < 20	R43	Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Skin Sens. 1 (H317)	-
GLYCIDYL METHACRYLATE	106-91-2	203-441-9	01-21194449 16-30	3 - < 5	R20/21/22 Xi; R36/38 R43	Acute Tox. 4 (H302) Acute Tox. 4 (H312) Acute Tox. 4 (H332) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Skin Sens. 1 (H317)	-
alpha, alpha DIMETHYLBENZYL HYDROPEROXIDE	80-15-9	201-254-7	01-21194757 96-19	1-<3	R21/22-48/20/ 22 C; R34 N; R51-53 O; R7 T;R23	Acute Tox. 4	
HYDROQUINONE	123-31-9	204-617-8	01-21195240 16-51		Carc.Cat.3; R40 Xi; R41 R43 N; R50 Muta.Cat.3; R68	Acute Tox. 4 (H302) Eye Dam. 1 (H318) Skin Sens. 1 (H317) Muta. 2 (H341) Carc. 2 (H351) Aquatic Acute 1 (H400)	

For any H statements and R phrases mentioned in this section, see the full text in section 16.

SECTION 4. FIRST AID MEASURES

4.1. Description of first aid measures

General advice

If symptoms persist, call a physician. Avoid contact with skin, eyes and clothing. Avoid breathing vapours or mists.

Eye Contact

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately. *Skin Contact*

Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. Get medical attention if irritation develops and persists.

Ingestion

Rinse mouth with water. Do NOT induce vomiting. If swallowed, seek medical advice immediately and show this container or label. *Inhalation*

Remove from the area to fresh air. Seek medical attention if respiratory irritation develops or if breathing becomes difficult.

4.2. Most important symptoms and effects, both acute and delayed

Sensitisation

May cause sensitisation by skin contact.

Eye contact

May cause severe irritation to eyes.

Skin contact

May cause irritation as itching or redness.

Ingestion

May cause gastrointestinal irritation seen as nausea, vomiting and diarrhoea. Ingestion of larger amounts may cause effects to the central nervous system (e.g. dizziness, headache).

Inhalation

Inhalation of mists may result in irritation to the respiratory tract. May cause headaches, dizziness, drowsiness and nausea.

4.3. Indication of any immediate medical attention and special treatment needed

Notes to physician

Treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Use:. Water spray. Foam. Carbon dioxide (CO2). Dry powder.

5.2. Special hazards arising from the substance or mixture

When exposed to high temperatures, the preparation may release dangerous decomposition products such as carbon monoxide and dioxide, smoke and/or nitrogen oxide. Acrylate monomers. Material can create slippery conditions.

5.3. Advice for firefighters

Firefighters should wear a self-contained breathing apparatus and full protective gear.

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Avoid contact with skin, eyes, and clothing. Use personal protective equipment. Refer to protective measures listed in sections 7 and 8. Prevent further leakage or spillage if safe to do so. Material can create slippery conditions. Remove all sources of ignition.

6.2. Environmental precautions

Avoid release of neat product into surface water and sanitary sewage system. Local authorities should be advised if significant spillages cannot be contained.

6.3. Methods and material for containment and cleaning up

Methods for Containment

Contain spillage, soak up with non-combustable absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).

Methods for Cleaning up

Clean preferably with a detergent, do not use solvents.

6.4. Reference to other sections

Refer to sections 7, 8 and 13.

SECTION 7. HANDLING AND STORAGE

7.1. Precautions for safe handling

Avoid contact with skin, eyes and clothing. Avoid breathing vapours or mists. Keep away from open flames, hot surfaces and sources of ignition. Do not eat, drink or smoke when using this product. Ensure adequate ventilation. Anyone with a history of skin sensitization to any of the substances in this product, should refrain from handling.

7.2. Conditions for safe storage, including any incompatibilities

Keep containers tightly closed in a dry, cool and well-ventilated place. Store in original container. Keep containers in cool areas out of direct sunlight and away from combustibles. Keep away from open flames, hot surfaces and sources of ignition. Incompatible with strong bases and oxidising agents.

7.3. Specific end use(s)

No information available.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Exposure limits

If vapours, fumes or mists are generated, their concentration in the workplace area should be kept to the lowest reasonable level. For substances.

Component	European Union	The United Kingdom	France	Germany	Austria
METHYL METHACRYLATE		STEL: 100 ppm	TWA: 50 ppm	AGW: 50ppm	STEL: 100 ppm
		STEL: 416 mg/m ³	TWA: 205 mg/m ³	AGW: 210mg/m ³	STEL: 420 mg/m ³
		TWA: 50 ppm	STEL: 100 ppm	Peak: 100ppm	TWA: 50 ppm
		TWA: 208 mg/m ³	STEL: 410 mg/m ³	Peak: 420mg/m ³	TWA: 210 mg/m ³
		_	-	TWA: 50ppm	_
				TWA: 210mg/m ³	
HYDROQUINONE		STEL: 1.5 mg/m ³	TWA: 2 mg/m ³	Skin	STEL: 4 mg/m ³
		TWA: 0.5 mg/m ³	-		TWA: 2 mg/m ³

Component	Spain	Portugal	Italy	The Netherlands	Switzerland
METHYL METHACRYLATE	STEL: 100 ppm TWA: 50 ppm	STEL: 100 ppm TWA: 50 ppm	TWA: 50 ppm STEL: 100 ppm	STEL: 410 mg/m ³ TWA: 205 mg/m ³	STEL: 100 ppm STEL: 420 mg/m ³ TWA: 50 ppm TWA: 210 mg/m ³
HYDROQUINONE	TWA: 2 mg/m ³	TWA: 2 mg/m ³			Skin STEL: 2 mg/m³ TWA: 2 mg/m³

Component	Denmark	Finland	Norway	Sweden	Czech
METHYL METHACRYLATE	TWA: 25 ppm	TWA: 10 ppm	TWA: 25 ppm	50 ppm	PEL: 50mg/m ³
	TWA: 102 mg/m ³	TWA: 42 mg/m ³	TWA: 100 mg/m ³	200 mg/m ³	NPK-P: 150mg/m ³
	Skin	STEL: 50 ppm	Skin	150 ppm	
		STEL: 210 mg/m ³		600 mg/m ³	
2-HYDROXYETHYL			TWA: 2 ppm		
METHACRYLATE			TWA: 11 mg/m ³		
HYDROQUINONE	Ceiling: 2 mg/m ³	TWA: 0.5 mg/m ³	TWA: 0.5 mg/m ³	0.5 mg/m ³	PEL: 2mg/m ³
		STEL: 2 mg/m ³	_	1.5 mg/m ³	NPK-P: 4mg/m ³

Component	Poland	Ireland
METHYL METHACRYLATE	NDSCh: 300 mg/m ³ NDS: 100 mg/m ³	TWA: 50 ppm STEL: 100 ppm
HYDROQUINONE	NDSCh: 2 mg/m ³ NDS: 1 mg/m ³	TWA: 0.5 mg/m ³ STEL: 1.5 mg/m ³

8.2. Exposure controls

Control parametres

Anyone with a history of skin sensitization to any of the substances in this product, should refrain from handling. Provide an eyewash station.

Engineering Measures

General ventilation is normally adequate.

Personal Protective Equipment

Use personal protection equipment as per Directive 89/686/EEC.

Respiratory Protection

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Conforming to EN 141 (organic vapours).

Hand Protection

Wear suitable protective gloves conforming to EN 374. Type of gloves suggested :. Nitrile rubber (0.4 mm). Butyl rubber (0.7 mm). Polyvinyl alcohol. Breakthrough time of the glove material (protective index 6, breakthrough time: >480 min). For break through times, refer to glove manufacturers recommendations.

Skin Protection

Body protection must be chosen based on activity and possible exposure, e.g. footwear (solid shoes, rubber boots), rubber apron, long-sleeved work clothing, impervious suit.

Eye Protection

Safety glasses with side-shields. Approved to EN 166.

General hygiene considerations

Do not eat, drink or smoke when using this product. Handle in accordance with good industrial hygiene and safety practise. Wash hands before breaks and at the end of workday.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Information below relates to typical values and does not constitute a specification.

Appearance Physical State Odour pH Melting Point/Range Boiling Point/Range Flash Point Method	Green Pink Liquid Acrylic Not applicable. No information available. 101 °C 15 °C Closed cup
Evaporation Rate	No information available.
Flammability Limits in Air %	
Upper flammability limit:	12.5
Lower	2.1
Vapour Pressure	47 hPa @ 20°C
Vapor Density	No information available.

Specific Gravity Solubility Autoignition Temperature Viscosity Explosive properties Oxidizing Properties VOC Content (%) 1.0 - 1.1 Insoluble in water 421 °C Viscous No information available No information available. 50.0 %

9.2. Other information

No other information available

SECTION 10. STABILITY AND REACTIVITY

10.1. Reactivity

Not considered as highly reactive. See further information below.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Avoid radical-forming starting agents, peroxides and reactive metals. Light and/or alkaline metals. Strong bases. Reacts violently with peroxides.

10.4. Conditions to avoid

Extremes of temperature and direct sunlight. Keep away from open flames, hot surfaces, and sources of ignition. Keep away from combustable material.

10.5. Incompatible materials

Reducing agents. Oxidising agents. Acids. Bases. Heavy metals. Avoid radical-forming starting agents, peroxides and reactive metals.

10.6. Hazardous decomposition products

None under normal storage conditions and use.

When exposed to high temperatures, the preparation may release dangerous decomposition products such as carbon monoxide and dioxide, smoke and/or nitrogen oxide. Acrylate monomers.

SECTION 11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Product Information

The product itself has not been tested.

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
METHYL METHACRYLATE	= 7900 mg/kg (Rat)		= 4632 ppm (Rat) 4 h
2-HYDROXYETHYL METHACRYLATE	= 5050 mg/kg(Rat)	> 3000 mg/kg (Rabbit)	
GLYCIDYL METHACRYLATE	= 500 mg/kg (Rat)	= 470 mg/kg (Rabbit)	= 45 ppm (Rat) 4 h
alpha, alpha DIMETHYLBENZYL HYDROPEROXIDE	= 382 mg/kg (Rat)	= 0.126 mL/kg (Rabbit)	= 220 ppm (Rat)4 h
HYDROQUINONE	= 298 mg/kg (Rat)	= 74800 mg/kg (Rabbit)	

Sensitisation

May cause sensitisation by skin contact.

Skin contact

May cause irritation as itching or redness.

Inhalation

Inhalation of mists may result in irritation to the respiratory tract. May cause headaches, dizziness, drowsiness and nausea. *Ingestion*

May cause gastrointestinal irritation seen as nausea, vomiting and diarrhoea. Ingestion of larger amounts may cause effects to the central nervous system (e.g. dizziness, headache).

Eye contact

May cause severe irritation to eyes.

Carcinogenicity

Contains substance(s) with limited evidence of carcinogenic effects below the level for classification.

Mutagenic Effects

Contains substance(s) with limited evidence of mutagenic effects below the level for classification.

Reproductive Effects

There are no known substances in this product with effects on reproduction.

SECTION 12. ECOLOGICAL INFORMATION

12.1. Toxicity

Product Information

The product itself has not been tested.

Ecotoxicity effects

Contains substance(s) known to be hazardous to the aquatic environment.

Component	Toxicity to Fish	Water Flea	Toxicity to Algae
Component METHYL METHACRYLATE	Toxicity to Fish LC50 243 - 275 mg/L Pimephales promelas 96 h LC50 125.5 - 190.7 mg/L Pimephales promelas 96 h LC50 170 - 206 mg/L Lepomis macrochirus 96 h LC50 153.9 - 341.8 mg/L Lepomis macrochirus 96 h LC50 > 79 mg/L Oncorhynchus mykiss 96 h LC50 326.4 - 426.9 mg/L Poecilia	Water Flea 69: 48 h Daphnia magna mg/L EC50	Toxicity to Algae EC50 = 170 mg/L Pseudokirchneriella subcapitata 96 h
	reticulata 96 h		

2-HYDROXYETHYL METHACRYLATE	LC50 213 - 242 mg/L Pimephales promelas 96 h LC50 = 227 mg/L Pimephales promelas 96 h		
alpha, alpha DIMETHYLBENZYL HYDROPEROXIDE	LC50 3.9 mg/L Oncorhynchus mykiss 96 h		
HYDROQUINONE	LC50 = 0.044 mg/L Oncorhynchus mykiss 96 h LC50 = 0.044 mg/L Pimephales promelas 96 h LC50 0.1 - 0.18 mg/L Pimephales promelas 96 h LC50 = 0.17 mg/L Brachydanio rerio 96 h	0.29: 48 h Daphnia magna mg/L EC50	EC50 = 0.335 mg/L Pseudokirchneriella subcapitata 72 h

12.2. Persistence and degradability

Ecotoxicological properties are substance specific, i.e. bioaccumulation, persistence and degradability. The information is given, where available and appropriate, for substance(s) of the mixture.

12.3. Bioaccumulative potential

Not likely to bioaccumulate. Component information below.

Component	log Pow
METHYL METHACRYLATE	0.7
2-HYDROXYETHYL	0.47
METHACRYLATE	
HYDROQUINONE	0.5

12.4. Mobility in soil

The product is insoluble and sinks in water.

12.5. Results of PBT and vPvB assessment

The components in this formulation do not meet the criteria for classification as PBT or vPvB. As defined under the regulation EC 1907/2006.

12.6. Other adverse effects

No data available.

SECTION 13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste from Residues / Unused Products

Dispose of in accordance with local regulations.

Contaminated Packaging

Empty containers should be taken for local recycling, recovery or waste disposal. Empty remaining contents. Recycle according to official regulations.

EWC waste disposal No

The following EWC/ AVV waste codes may be applicable:

08 04 09* Waste adhesives and sealants containing organic solvents or other dangerous substances

16 03 05* organic wastes containing dangerous substances

Other Information

According to the European Waste Catalogue, Waste Codes are not product specific, but application specific

SECTION 14. TRANSPORT INFORMATION

14.1, 14.2, 14.3, 14.4. IMDG/IMO

UN-No	UN1133
Proper Shipping Name	ADHESIVES containing flammable liquid
Hazard Class	3
Packing Group	II
EmS	F-E, S-D
ADR / RID	
UN-No	UN1133
Hazard Class	3
Packing Group	II

Classification Code	F1
Limited Quantity	5 L
Transport Cat. (Tunnel	2 (D/E)
Restriction Code)	
IATA/ICAO	
UN-No	UN1133
Hazard Class	3
Packing Group	II
ERG Code	3L

14.5. Environmental hazards

The mixture is not environmentally hazardous for transport

14.6. Special precautions for user

No special precautions.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Packaged product, not typically transported in IBC's.

Additional information

Transport product in compliance with provisions of the ADR for road, RID for rail, IMDG for sea and ICAO/IATA for air transport.

SECTION 15. REGULATORY INFORMATION

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

This mixture was classified in compliance with EC Regulation 1272/2008 (CLP) and its adaptations. <u>Other regulatory information</u>

Packaging <125ml.

15.2. Chemical safety assessment

No safety assessment has been created

SECTION 16. OTHER INFORMATION

Text of H statements mentioned in Section 3

H225 - Highly flammable liquid and vapour. H242 - Heating may cause a fire. H302 - Harmful if swallowed. H312 - Harmful in contact with skin. H314 - Causes severe skin burns and eye damage. H315 - Causes skin irritation. H317 - May cause an allergic skin reaction. H318 - Causes serious eye damage. H319 - Causes serious eye irritation. H331 - Toxic if inhaled. H332 - Harmful if inhaled. H335 - May cause respiratory irritation. H341 - Suspected of causing genetic defects. H351 - Suspected of causing cancer. H373 - May cause damage to organs through prolonged or repeated exposure. H400 - Very toxic to aquatic life. H411 - Toxic to aquatic life with long lasting effects.

Text of R phrases mentioned in Section 3

R 7 - May cause fire. R11 - Highly flammable. R22 - Harmful if swallowed. R23 - Toxic by inhalation. R34 - Causes burns. R40 - Limited evidence of a carcinogenic effect. R43 - May cause sensitisation by skin contact. R68 - Possible risk of irreversible effects. R20/21/22 - Harmful by inhalation, in contact with skin and if swallowed. R21/22 - Harmful in contact with skin and if swallowed. R36/38 - Irritating to eyes and skin. R37/38 - Irritating to respiratory system and skin. R48/20/22 - Harmful: danger of serious damage to health by prolonged exposure through inhalation and if swallowed. R51/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP] On the basis of test data. H225 - Highly flammable liquid and vapour. Calculation method. H315 - Causes skin irritation. H317 -May cause an allergic skin reaction. H319 - Causes serious eye irritation. H335 - May cause respiratory irritation.

Prepared By Austen Pimm Creation Date 02/02/2015 Revision Date 11/06/2016 Revision Summary Revised formulation Replaces SDS reference EP_0956P1G M1 1 2 3 5 8 9 11 14 16 SDS sections updated 15

Abbreviations REACH: Registration Evaluation Authorisation Restriction of Chemicals EU: European Union EC: European community EEC: European Economic Community UN: United Nations CAS: Chemical Abstracts Service PBT: Persistent Bioaccumulative Toxic vPvB: very Persistent very Bioaccumulative LC50: Lethal concentration, 50 percent LD50 : Lethal dose, 50 percent EC50: Effective concentration, 50 percent LogPow: LogP octanol/water VwVwS: Verwaltungsvorschrift wassergefährdende Stoffe (Administrative order relating to substances hazardous to water - Germany) WGK: Wassergefahrdungsklasse (Water Hazard Class - Germany). AVV: Abfallverzeichnis-Verordnung (Waste Code - Germany) ADR: Accord européen relatif au transport international des marchandises Dangereuses par Route (European agreement governing the international carriage of dangerous goods by road) IMDG: International Maritime Dangerous Goods IATA: International Air Transport Association ICAO: International Civil Aviation Organisation RID: Reglement international concernant le transport des merchandises dangereuses par chemin der fer (Regulations concerning the International carriage of Dangerous goods by rail) EmS: Emergency Response Procedures for Ships Carrying Dangerous Goods ERG: Emergency Response Guidebook IUCLID / RTECS International Uniform Chemical Information Database / Registry of Toxic Effects of Chemical Substances GHS: Globally Harmonised System of classification and Labelling of Chemicals EINECS: European Inventory of Existing Commercial Chemical Substances VOC: Volatile Organic Chemical w/w: weight for weight DMSO: Dimethyl sulphoxide OECD: Organization for Economic Cooperation and Development STEL: Short Term Exposure Limit TWA: Time Weighted Average **Further Information** Component test results displayed in sections 11 and 12 are typically supplied by Chemadvisor and assembled from publicly available literature sources e.g. IUCLID / RTECS It is at all times the responsibility of the user to take all necessary measures to comply with legal requirements and local regulations

Disclaimer

The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text. End of Safety Data Sheet