Printing date 01/23/2018 Reviewed on 03/30/2017

1 Identification

· Product identifer

· Trade name: POLYFLEX 59A CATALYST

· Article number: WP59A.0

· Details of the supplier of the safety data sheet

• Manufacturer/Supplier: Wasser Corporation 4118 B PL NW, Suite B Auburn, WA 98001, US Phone 253-850-2967

· Information department: Product safety department

· Emergency telephone number: EMERGENCY PHONE NUMBERS: USA and Canada: 1-800 424-9300 International: 1-703 527-3887

2 Hazard(s) identification

- · Classification of the substance or mixture
- Flam. Liq. 3 H226 Flammable liquid and vapor.

Acute Tox. 4 H332 Harmful if inhaled.

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2A H319 Causes serious eye irritation.

Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Skin Sens. 1 H317 May cause an allergic skin reaction.

Carc. 1B H350 May cause cancer.

STOT SE 3 H335 May cause respiratory irritation.

STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.

- · Label elements
- · GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).
- · Hazard pictograms







GHS02

GHS07

GHS0

- · Signal word Danger
- · Hazard-determining components of labeling:

4,4'-methylenediphenyl diisocyanate

diphenylmethanediisocyanate,isomeres and homologues

o-(p-isocyanatobenzyl)phenyl isocyanate

4-methyl-m-phenylene diisocyanate

2-methyl-m-phenylene diisocyanate

· Hazard statements

H226 Flammable liquid and vapor.

H332 Harmful if inhaled.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

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H317 May cause an allergic skin reaction.

H350 May cause cancer.

H335 May cause respiratory irritation.

H373 May cause damage to organs through prolonged or repeated exposure.

· Precautionary statements

Keep out of reach from children.

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P240 Ground/bond container and receiving equipment.

P241 Use explosion-proof electrical/ventilating/lighting/equipment.

P242 Use only non-sparking tools.

P243 Take precautionary measures against static discharge. P260 Do not breathe dust/fume/gas/mist/vapors/spray.

P264 Wash thoroughly after handling.

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

P272 Contaminated work clothing must not be allowed out of the workplace.
 P280 Wear protective gloves/protective clothing/eye protection/face protection.

P284 [In case of inadequate ventilation] wear respiratory protection.

P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/

shower.

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

P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present

and easy to do. Continue rinsing.

P308+P313 IF exposed or concerned: Get medical advice/attention.

P312 Call a poison center/doctor if you feel unwell. P314 Get medical advice/attention if you feel unwell.

P321 Specific treatment (see on this label).

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P337+P313 If eye irritation persists: Get medical advice/attention.

P342+P311 If experiencing respiratory symptoms: Call a poison center/doctor.

P362+P364 Take off contaminated clothing and wash it before reuse.

P363 Wash contaminated clothing before reuse.

P370+P378 In case of fire: Use for extinction: CO2, powder or water spray. P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P403+P235 Store in a well-ventilated place. Keep cool.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international

regulations.

· Classification system:

· NFPA ratings (scale 0 - 4)



Health = 2 Fire = 2Reactivity = 0

· HMIS-ratings (scale 0 - 4)



- · Other hazards
- · Results of PBT and vPvB assessment
- · **PBT**: Not applicable.

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· vPvB: Not applicable.

(Contd. of page 2)

3 Composition/information on ingredients

- · Chemical characterization: Mixtures
- **Description:** Mixture of the substances listed below with nonhazardous additions.

· Dangerous components:		
101-68-8	4,4'-methylenediphenyl diisocyanate	10-30%
	diphenylmethanediisocyanate,isomeres and homologues	10-30%
64742-95-6	Solvent naphtha (petroleum), light arom.	5-10%
	o-(p-isocyanatobenzyl)phenyl isocyanate	1-5%
584-84-9	4-methyl-m-phenylene diisocyanate	0.1-1%
91-08-7	2-methyl-m-phenylene diisocyanate	0.1-1%

4 First-aid measures

- · Description of first aid measures
- · General information:

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

· After inhalation:

Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

- $\cdot \textit{After skin contact:} \ \textit{Immediately wash with water and soap and rinse thoroughly}.$
- · After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

- · After swallowing: If symptoms persist consult doctor.
- · Information for doctor:
- · Most important symptoms and effects, both acute and delayed No further relevant information available.
- · Indication of any immediate medical attention and special treatment needed

No further relevant information available.

5 Fire-fighting measures

- · Extinguishing media
- · Suitable extinguishing agents:

CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

- · For safety reasons unsuitable extinguishing agents: Water with full jet
- · Special hazards arising from the substance or mixture No further relevant information available.
- · Advice for firefighters
- · Protective equipment: Mouth respiratory protective device.

6 Accidental release measures

- · Personal precautions, protective equipment and emergency procedures Wear protective equipment. Keep unprotected persons away.
- · Environmental precautions: Do not allow to enter sewers/ surface or ground water.

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· Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

· Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7 Handling and storage

- · Precautions for safe handling Ensure good ventilation/exhaustion at the workplace.
- · Information about protection against explosions and fires:

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

- · Conditions for safe storage, including any incompatibilities
- · Storage:
- Requirements to be met by storerooms and receptacles: No special requirements.
- · Information about storage in one common storage facility: Not required.
- · Further information about storage conditions: Keep receptacle tightly sealed.
- · Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

- · Additional information about design of technical systems: No further data; see item 7.
- · Control parameters
- · Components with limit values that require monitoring at the workplace:

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.

At this time, the other constituents have no known exposure limits.

101-	101-68-8 4,4'-methylenediphenyl diisocyanate	
PEL	Ceiling limit value: 0.2 mg/m³, 0.02 ppm	
REL	Long-term value: 0.05 mg/m^3 , 0.005 ppm Ceiling limit value: $0.2* \text{ mg/m}^3$, $0.02* \text{ ppm}$ *10-min	
TLV	Long-term value: 0.051 mg/m³, 0.005 ppm	
584-	84-9 4-methyl-m-phenylene diisocyanate	
PEL	Ceiling limit value: 0.14 mg/m³, 0.02 ppm	
REL	See Pocket Guide App. A	
TLV	Short-term value: 0.035* mg/m³, 0.005* ppm Long-term value: 0.007* mg/m³, 0.001* ppm *inh.fraction+vapour; Skin;DSEN,RSEN; BEI	
91-08-7 2-methyl-m-phenylene diisocyanate		
TLV	Short-term value: 0.035* mg/m³, 0.005* ppm Long-term value: 0.007* mg/m³, 0.001* ppm *inh.fraction+vapour;Skin;DSEN,RSEN;BEI	

· Additional information: The lists that were valid during the creation were used as basis.

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- · Exposure controls
- · Personal protective equipment:
- · General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Store protective clothing separately.

Avoid contact with the eyes and skin.

· Breathing equipment:

During mixing, handling and application: Splash goggles. Full protective clothing. Gloves (impervious). When air concentrations are not known (or above the TLV), an air-supplied respirator is required. Refer to OSHA Respiratory Protection Standard (29 CFR 1910.134). In presence of air movement, air-purifying (cartridge type) respirators are not the best protection but can be used, if you replaced them frequently. Change cartridges after 8h max or less due to their low warning properties. When in a confined space wear MSHA/NIOSH approved self-contained breathing apparatus or equivalent and full protective gear.

· Protection of hands:



Protective 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

· Material of gloves

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.

· Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eye protection:



Tightly sealed goggles

9 Physical and chemical properties

- · Information on basic physical and chemical properties
- · General Information

· Appearance:

Form: Fluid

Color: Amber colored

· Odor: Light

· Odor threshold: Not determined.

· pH-value: Not determined.

· Change in condition

Melting point/Melting range: Undetermined.

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	(Contd. of page
Boiling point/Boiling range:	162 °C (323.6 °F)
Flash point:	45 °C (113 °F)
Flammability (solid, gaseous):	Not applicable.
Ignition temperature:	400 °C (752 °F)
Decomposition temperature:	Not determined.
· Auto igniting:	Product is not selfigniting.
Danger of explosion:	Product is not explosive. However, formation of explosive air/vapo mixtures are possible.
Explosion limits:	
Lower:	0.4 Vol %
Upper:	0.0 Vol %
Vapor pressure:	Not determined.
Density at 20 °C (68 °F):	1.09 g/cm³ (9.09605 lbs/gal)
Relative density	Not determined.
· Vapor density	Not determined.
Evaporation rate	Not determined.
Solubility in / Miscibility with	
Water:	Not miscible or difficult to mix.
· Partition coefficient (n-octanol/wa	ter): Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
Other information	No further relevant information available.

10 Stability and reactivity

- · Reactivity No further relevant information available.
- · Chemical stability
- · Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · Possibility of hazardous reactions No dangerous reactions known.
- · Conditions to avoid No further relevant information available.
- · Incompatible materials: No further relevant information available.
- · Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

- · Information on toxicological effects
- · Acute toxicity:

· LD/LC5	· LD/LC50 values that are relevant for classification:		
101-68-8	8 4,4'-meth y	elenediphenyl diisocyanate	
Oral	LD50	2,200 mg/kg (mouse)	
64742-95-6 Solvent naphtha (petroleum), light arom.		naphtha (petroleum), light arom.	
Oral	LD50	>6,800 mg/kg (rat)	
	•	(C1 7)	

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		(Contd. of page 6)
Dermal	LD50	>3,400 mg/kg (rab)
Inhalative	LC50/4 h	>10.2 mg/l (rat)
584-84-9	1-methyl-m	-phenylene diisocyanate
Oral	LD50	5,800 mg/kg (rat)

- · Primary irritant effect:
- · on the skin: Irritant to skin and mucous membranes.
- · on the eye: Irritating effect.
- · Sensitization:

Sensitization possible through inhalation.

Sensitization possible through skin contact.

· Additional toxicological information:

The product shows the following dangers according to internally approved calculation methods for preparations:

Harmful

Irritant

· Carcinogenic categories

· IARC (International Agency for Research on Cancer)		
101-68-8 4,4'-methylenediphenyl diisocyanate	3	
9016-87-9 diphenylmethanediisocyanate,isomeres and homologues	3	
· NTP (National Toxicology Program)		
584-84-9 4-methyl-m-phenylene diisocyanate	R	
91-08-7 2-methyl-m-phenylene diisocyanate	R	
· OSHA-Ca (Occupational Safety & Health Administration)		
None of the ingredients is listed.		

12 Ecological information

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- · Persistence and degradability No further relevant information available.
- · Behavior in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
- · Additional ecological information:
- · General notes:

Water hazard class 2 (Self-assessment): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

- · Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · vPvB: Not applicable.
- · Other adverse effects No further relevant information available.

13 Disposal considerations

- · Waste treatment methods
- · Recommendation:

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

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• Uncleaned packagings:
• Recommendation: Disposal must be made according to official regulations.

Transport information	
UN-Number	1011073
DOT, ADR, IMDG, IATA	UN1263
UN proper shipping name	
DOT	Paint related material
ADR	1263 Paint related material
· IMDG, IATA	PAINT RELATED MATERIAL
Transport hazard class(es)	
· DOT	
FLAMABLE LIQUO	
3/	
· Class	3 Flammable liquids
· Label	3
· ADR, IMDG, IATA	
3	
· Class	3 Flammable liquids
· Label	3
· Packing group	
· DOT, ADR, IMDG, IATA	III
Environmental hazards:	Not applicable.
· Special precautions for user	Warning: Flammable liquids
· Danger code (Kemler):	30
· EMS Number:	<i>F-E</i> , <u><i>S-E</i></u>
Stowage Category	A
Transport in bulk according to Annex I	
MARPOL73/78 and the IBC Code	Not applicable.
Transport/Additional information:	
· DOT	
Quantity limitations	On passenger aircraft/rail: 60 L
~	On cargo aircraft only: 220 L
· <i>ADR</i>	
Excepted quantities (EQ)	Code: E1
	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 1000 ml
	(Contd. on page

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(Contd. of page 8) · IMDG · Limited quantities (LQ) 5LCode: E1 · Excepted quantities (EQ) Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml UN 1263 PAINT RELATED MATERIAL, 3, III · UN "Model Regulation":

15 Regulatory information

- · Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Sara

· Section 355 (extremely hazardous substances):		
584-84-9	4-methyl-m-phenylene diisocyanate	
91-08-7	2-methyl-m-phenylene diisocyanate	
· Section 313 (Specific toxic chemical listings):		
101-68-8	4,4'-methylenediphenyl diisocyanate	
	diphenylmethanediisocyanate,isomeres and homologues	
584-84-9	4-methyl-m-phenylene diisocyanate	
91-08-7	2-methyl-m-phenylene diisocyanate	
· TSCA (To	· TSCA (Toxic Substances Control Act)·	

TSCA (Toxic Substances Control Act):

All ingredients are listed.

- · Proposition 65
- · Chemicals known to cause cancer:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

· Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

· Carcinogenic categories

ememoge	ine caregories	
· EPA (Environmental Protection Agency)		
101-68-8	4,4'-methylenediphenyl diisocyanate	D, CBD
9016-87-9	diphenylmethanediisocyanate,isomeres and homologues	CBD
· TLV (Threshold Limit Value established by ACGIH)		
4-methyl-m-phenylene diisocyanate (A		(A4)
2-methyl-m-phenylene diisocyanate (A4)		(A4)
· NIOSH-Ca (National Institute for Occupational Safety and Health)		
584-84-9 4-methyl-m-phenylene diisocyanate		

91-08-7 2-methyl-m-phenylene diisocyanate

· GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).

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· Hazard pictograms







· Signal word Danger

· Hazard-determining components of labeling:

4,4'-methylenediphenyl diisocyanate

diphenylmethanediisocyanate,isomeres and homologues

o-(p-isocyanatobenzyl)phenyl isocyanate

4-methyl-m-phenylene diisocyanate

2-methyl-m-phenylene diisocyanate

· Hazard statements

H226 Flammable liquid and vapor.

H332 Harmful if inhaled.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H317 May cause an allergic skin reaction.

H350 May cause cancer.

H335 May cause respiratory irritation.

H373 May cause damage to organs through prolonged or repeated exposure.

· Precautionary state	ements
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P210	Keep away from heat/sparks/open flames/hot surfaces No smoking.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/lighting/equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P264	Wash thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing must not be allowed out of the workplace.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P284	[In case of inadequate ventilation] wear respiratory protection.
P303+P361+P353	If on skin (or hair): Take off immediately all contaminated clothing. Rin.
	1

nse skin with water/ shower.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P304+P340 P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present

and easy to do. Continue rinsing.

P308+P313	IF exposed or concerned: Get medical advice/attention.
P312	Call a poison center/doctor if you feel unwell.
P314	Get medical advice/attention if you feel unwell.
P321	Specific treatment (see on this label).
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P337+P313	If eye irritation persists: Get medical advice/attention.
P342+P311	If experiencing respiratory symptoms: Call a poison center/doctor.
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.
P370+P378	In case of fire: Use for extinction: CO2, powder or water spray.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.

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Safety Data Sheet acc. to OSHA HCS

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P403+P235 Store in a well-ventilated place. Keep cool.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international

regulations.

· National regulations:

· Additional classification according to Decree on Hazardous Materials:

Carcinogenic hazardous material group III (dangerous).

· Information about limitation of use:

Workers are not allowed to be exposed to the hazardous carcinogenic materials contained in this preparation. Exceptions can be made by the authorities in certain cases.

· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

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.

- · Department issuing SDS: Product safety department
- · Contact: HS REG.DEPART.REG.SS
- · Date of preparation / last revision 01/23/2018 / -
- · Abbreviations and acronyms:

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

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

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)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA) VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Flam. Liq. 3: Flammable liquids - Category 3

Acute Tox. 4: Acute toxicity - Category 4

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Irrit. 2A: Serious eye damage/eye irritation - Category 2A

Resp. Sens. 1: Respiratory sensitisation – Category 1

Skin Sens. 1: Skin sensitisation - Category 1

Carc. 1B: Carcinogenicity - Category 1B

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3 STOT RE 2: Specific target organ toxicity (repeated exposure) - Category 2