

**1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING**

Product name : PACT premier / PACT premier HT-96  
Product number : MD1-29 / MD1-36  
Company : Molecular Dimensions Limited  
Unit 6 Goodwin Business Park  
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**2. HAZARDS IDENTIFICATION****Risk advice to man and the environment**

Flammable. Very toxic to aquatic organisms.  
Toxic if swallowed. May cause cancer.  
Irritating to eyes, respiratory system and skin. Corrosive.  
Causes severe burns. Harmful to aquatic organisms.  
Contact with combustible material may cause fire. Harmful by inhalation.  
Vapours may cause drowsiness and dizziness. May cause sensitisation.  
Irritating to respiratory system. Risk of serious damage to eyes.  
Possible risk of harm to the unborn child. Highly flammable.  
Danger of serious damage to health by prolonged exposure.  
Contact with acids liberates very toxic gas. Harmful to aquatic organisms.  
Harmful if swallowed. Irritating to eyes, respiratory system and skin.

**3. COMPOSITION/INFORMATION ON INGREDIENTS.**

Reagent	CAS-No.	EC-No.	Reagent	CAS-No.	EC-No.
Acetic acid	64-19-7	200-580-7	Potassium sodium tartrate	6381-59-5	206-156-8
Ammonium chloride	9718	None	Potassium thiocyanate	333-20-0	206-370-1
Bis-Tris propane	64431-96-5	264-899-3	Sodium acetate trihydrate	127-09-3	204-823-8
Boric acid	10043-35-3	233-139-2	Sodium bromide	7758-02-3	231-830-3
Calcium chloride dihydrate	10035-04-8	233-140-8	Sodium cacodylate trihydrate	6131-99-3	204-708-2
Potassium phosphate dibasic	7758-11-4	231-834-5	Sodium chloride	7647-14-5	231-598-3
Sodium phosphate dibasic dihydrate	7558-79-4	231-448-7	Sodium citrate tribasic dihydrate	03/04/6132	200-675-3
Glycine	56-40-6	200-272-2	Sodium phosphate monobasic monohydrate	10049-21-5	231-449-2
HEPES	7365-45-9	230-907-9	Sodium fluoride	7681-49-4	231-667-8
Hydrochloric acid (HCl)	7647-01-0	231-595-7	Sodium formate	141-53-7	205-488-0
Imidazole	288-32-4	206-019-2	Sodium hydroxide solution	1310-73-2	215-185-5
Lithium chloride	7447-41-8	231-212-3	Sodium iodide	7681-82-5	231-679-3
DL-Malic acid	97-67-6	202-601-5	Sodium malonate dibasic monohydrate	26522-85-0	None
Magnesium chloride hexahydrate	7791-18-6	232-094-6	Sodium nitrate	7631-99-4	231-554-3
MES monohydrate	4432-31-9	None	Sodium propionate	137-40-6	205-290-4
PEG 1500	25322-68-3	203-473-3	Sodium sulfate	7757-82-6	231-820-9
PEG 3350	25322-68-3	None	Succinic acid	110-15-6	203-740-4
PEG 6000	25322-68-3	None	Trizma® base (Tris)	77-86-1	201-064-4
Potassium phosphate monobasic	7778-77-0	231-913-4	Zinc chloride	7646-85-7	231-592-0



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## 10. STABILITY AND REACTIVITY

### Storage stability

Stable under recommended storage conditions.

### Materials to avoid

Strong oxidising agents.

### Hazardous decomposition products

Formed under fire conditions - Carbon oxides, Nitrogen oxides.

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## 11. TOXICOLOGICAL INFORMATION

### Acute toxicity

No data available.

### Oxidation and corrosion

No data available.

### Sensitisation

No data available.

### Chronic exposure

No data available.

### Potential health effects

<b>Inhalation</b>	Harmful if inhaled. Can cause respiratory tract irritation.
<b>Skin</b>	Harmful if absorbed through skin. Can cause skin irritation.
<b>Eyes</b>	Can cause eye irritation.
<b>Ingestion</b>	Harmful if swallowed.

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## 12. ECOLOGICAL INFORMATION

### Elimination information (persistence and degradability)

No data available.

### Ecotoxicity effects

No data available.

### Further information on ecology

No data available.

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## 13. DISPOSAL CONSIDERATIONS

### Product

Observe all EU and local environmental regulations.

### Contaminated packaging

Dispose of as unused product.

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## 14. TRANSPORT INFORMATION

### ADR/RID

Not dangerous goods.

### IMDG

Not dangerous goods.

### IATA

Non-hazardous for air transport.

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## 15. REGULATORY INFORMATION

### Labelling according to EC Directives

Caution - substance not yet tested completely.

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## 16. OTHER INFORMATION

### Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Molecular Dimensions Ltd., shall not be held liable for any damage resulting from handling or from contact with the above product.

For R&D use only. Not for drug, household or other uses.

**1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING**

Product name : JCSG Plus / JCSG Plus HT-96 / JCSG Plus FX-96  
 Product number : MD1-37 / MD1-40 / MD1-40-FX  
 Company : Molecular Dimensions Limited  
 Unit 6 Goodwin Business Park  
 Willie Snaith Road  
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 Suffolk  
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 Email address : [enquiries@moleculardimensions.com](mailto:enquiries@moleculardimensions.com)

**2. HAZARDS IDENTIFICATION**

**Risk advice to man and the environment**

Flammable.	Very toxic to aquatic organisms.
Toxic if swallowed.	May cause cancer.
Irritating to eyes, respiratory system and skin.	Corrosive.
Causes severe burns.	Harmful to aquatic organisms
Contact with combustible material may cause fire	Harmful by inhalation.
Vapours may cause drowsiness and dizziness.	May cause sensitisation.
Irritating to respiratory system.	Risk of serious damage to eyes.
Possible risk of harm to the unborn child.	Highly flammable.
Danger of serious damage to health by prolonged exposure.	
Contact with acids liberates very toxic gas. Harmful to aquatic organisms.	
Harmful if swallowed. Irritating to eyes, respiratory system and skin.	

**3. COMPOSITION/INFORMATION ON INGREDIENTS.**

Reagent	CAS-No.	EC-No.	Reagent	CAS-No.	EC-No.
1,2-Propanediol	57-55-6	200-338-0	Magnesium sulfate heptahydrate	10034-99-8	231-298-2
1,4-Dioxane	123-91-1	204-661-8	MES monohydrate	4432-31-9	None
2-Propanol	67-63-0	200-661-7	Nickel(II) chloride hexahydrate	7791-20-0	231-743-0
Acetic acid	64-19-7	200-580-7	PEG 10,000	25322-68-3	203-473-3
Ammonium acetate	631-61-8	211-162-9	PEG 1000	25322-68-3	203-473-3
Ammonium chloride	12125-02-9	235-186-4	PEG 1500	25322-68-3	203-473-3
Ammonium citrate dibasic	3012-65-5	221-146-3	PEG 20,000	25322-68-3	203-473-3
Ammonium formate	540-69-2	208-753-9	PEG 200	25322-68-3	203-473-3
Ammonium nitrate	6484-52-2	229-347-8	PEG 2000 MME	9004-74-4	None
Ammonium phosphate dibasic	7722-76-1	231-764-5	PEG 300	25322-68-3	500-038-2
Ammonium phosphate monobasic	7722-76-1	None	PEG 3000	25322-68-3	500-038-2
Ammonium sulfate	7783-20-2	231-984-1	PEG 3350	25322-68-3	203-473-3
BICINE	150-25-4	205-755-1	PEG 400	25322-68-3	500-38-2
BIS-TRIS	6976-37-0	230-237-7	PEG 4000	25322-68-3	500-038-2
Cadmium chloride hemi(pentahydrate)	7790-78-5	None	PEG 6000	25322-68-3	None
Calcium acetate hydrate	62-54-4	200-540-9	PEG 8000	25322-68-3	203-473-3
Calcium chloride dihydrate	10035-04-8	233-140-8	Poly(acrylic acid sodium salt) 5100	9003-04-7	None
CAPS	1135-40-6	214-492-1	Polyvinylpyrrolidone	9003-39-8	201-800-4
Cesium chloride	7647-17-8	231-600-2	Potassium bromide	7758-02-3	231-830-3
CHES	103-47-9	203-115-6	Potassium citrate tribasic monohydrate	6100-05-6	231-905-0
Citric acid	77-92-9	201-069-1	Potassium formate	590-29-4	209-677-9
Cobalt(II) chloride hexahydrate	7791-13-1	231-589-4	Potassium nitrate	7757-79-1	231-818-8
DL-Malic acid	6915-15-7	230-022-8	Potassium phosphate monobasic	7778-77-0	231-913-4
Ethanol	64-17-5	200-578-6	Potassium thiocyanate	333-20-0	206-370-1
Ethylene glycol	107-21-1	203-473-3	Sodium acetate trihydrate	6131-90-4	204-823-8
Glycerol	56-81-5	200-289-5	Sodium cacodylate trihydrate	6131-99-3	204-708-2
HEPES	7365-45-9	230-907-9	Sodium chloride	7647-14-5	231-598-3
HEPES sodium salt (Sodium HEPES)	75277-39-3	278-169-7	Sodium citrate tribasic trihydrate	6132-04-3	200-675-3
Hexylene glycol (MPD)	107-41-5	203-489-0	Sodium hydroxide	1310-73-2	215-185-5
Hydrochloric acid	7647-01-0	231-595-7	Sodium malonate dibasic monohydrate	26522-85-0	None
Imidazole	288-32-4	206-019-2	Sodium phosphate dibasic dihydrate	10028-24-7	231-448-7
Jeffamine® ED-2003	65605-36-9	None	Sodium phosphate monobasic monohydrate	10049-21-5	231-449-2
Jeffamine® M-600	77110-54-4	None	Sodium thiocyanate	540-72-7	208-754-4
Lithium chloride	7447-41-8	231-212-3	Succinic acid	110-15-6	203-740-4
Lithium sulfate	10102-25-7	None	Trimethylamine N-oxide dihydrate (TMAO)	62637-93-8	None

Magnesium chloride hexahydrate	7791-18-6	232-094-6	Trizma® base (Tris)	77-86-1	201-064-4
Magnesium formate dihydrate	6150-82-9	209-173-9	Zinc acetate dihydrate	5970-45-6	209-170-2

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#### 4. FIRST AID MEASURES

**If inhaled**

Move person into fresh air. If breathing becomes difficult call a physician.

**In case of skin contact**

Immediately wash skin with soap and copious amounts of water.

**In case of eye contact**

Flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

**If swallowed**

Wash out mouth with water provided the person is conscious. Call a physician.

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#### 5. FIRE-FIGHTING METHODS

**Suitable extinguishing media**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Specific hazard(s)**

Emits toxic fumes when burnt.

**Special protective equipment for fire-fighters**

Wear self-contained breathing apparatus and protective clothing.

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#### 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions**

Minimise direct contact with skin or eyes and prevent inhalation of dust.

**Environmental precautions**

Do not let product enter drains.

**Methods for cleaning up**

Sweep up and shovel. Keep in suitable, closed containers for disposal. Avoid raising dust. Ventilate area and wash spill site.

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#### 7. HANDLING AND STORAGE

**Handling**

Avoid inhalation. Avoid contact with eyes, skin and clothing.

Avoid prolonged or repeated exposure.

**Storage**

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

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#### 8. EXPOSURE CONTROL/PERSONAL PROTECTION

**Personal protective equipment**

**Respiratory protection**

Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Hand protection**

Wear protective gloves.

**Eye protection**

Safety glasses.

**Hygiene measures**

General industrial hygiene practice.

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#### 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance**

Form liquid

**Safety data**

pH	varying due to pack contents
Melting point	varying due to pack contents
Boiling point	varying due to pack contents
Flash point	varying due to pack contents
Ignition temperature	varying due to pack contents
Lower explosion limit	varying due to pack contents
Upper explosion limit	varying due to pack contents
Water solubility	varying due to pack contents

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## 10. STABILITY AND REACTIVITY

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