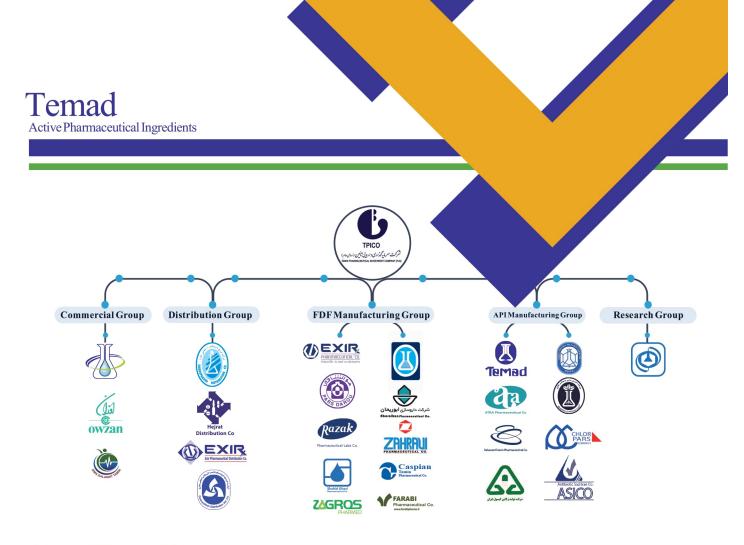


WE THINK OF WORLD CLASS QUALITY:

# Ternad

- Active Pharmaceutical Ingredients
- Pellet Forms
- Pharmaceutical Intermediates
- **■** Finished Dosage Forms



# About Temad Co.

TemadCo, (Active Pharmaceutical Ingredients), is member of TaminPharmaceutical Investment Company (TPICO) from SSIC SHASTA Group. Temad Co. Active Pharmaceutical Ingredients manufacturer, was established in 1980 as one of the largest producers of APIs in Iran and an innovative manufacturer of Narcotics and Non-Narcotics of world class quality in the Middle East. Apart from compliance with Iranian GMP regulations, Temad Co has acquired the national and international standards of API's manufacturing such as ISO 9001, ISO14001, ISO 45001 and Food & Drug Administration withcertifying bodies in Europe, is also anticipating the CEP certificate from European organization. Temad Co. is one of a pioneer pharmaceutical manufacturing company that is using its own qualified raw materials in finished dosage form manufacturing lines. At present, the company has 21 production lines and more than 115 pharmaceutical products including narcotics and general APIs in different forms such as DC grade API, pellets and non-sterile injectable grade. Temad Co. as knowledge-based company and prominent national exporter in 2022 has employed 570 experienced, committed and responsible human resources to fulfill long term and high attitude approaches.

# **Manufacturing Facilities**

# • Alborz Manufacturing Site

Alborz manufacturing site is located in an industrial zone 28th km of the capital, Alborz, in a total area of about 4.2 hectare. This area includes production sites of 7170 m<sup>2</sup> a warehouse is of 3450 m<sup>2</sup> and an administrative and laboratory area of 4450 m<sup>2</sup>. Temad facilities include high quality equipment with large capacity (more than 300,000 L) glass-lines, stainless steel reactors and distillation units.

## • Mashhad Manufacturing Site

Mashhad manufacturing site is located in the 3rd km of Mashhad-Fariman road in Khorasan Razavi prouince in total area of about 11 Hectares. Total capacity of Mashhad Temad facilities is about 150,000 L glass lined, stainless steel reactors and distillation units.

Mashhad's site, an API's division of Temad, is the highly privileged producer of Paracetamol Powder and DC by employing high quality and experienced staff which not only has broughtcustomer satisfaction in the local market but also exports its products to the international markets

# • Quality Control

The quality control laboratory is equipped with the most advanced chemical analysis and identification apparates and equipments, which include HPLC, GC, FT-IR, Spectrophotometer, UV-VIS, IMS, Atomic Absorption, TLC Scanner and Laser Particle Size Analyzer. Stringent quality control procedures ensure products of the highest quality as an obligation to the customers.

# **Certificates and Achievements**





# Active Pharmaceutical Ingredients (API)

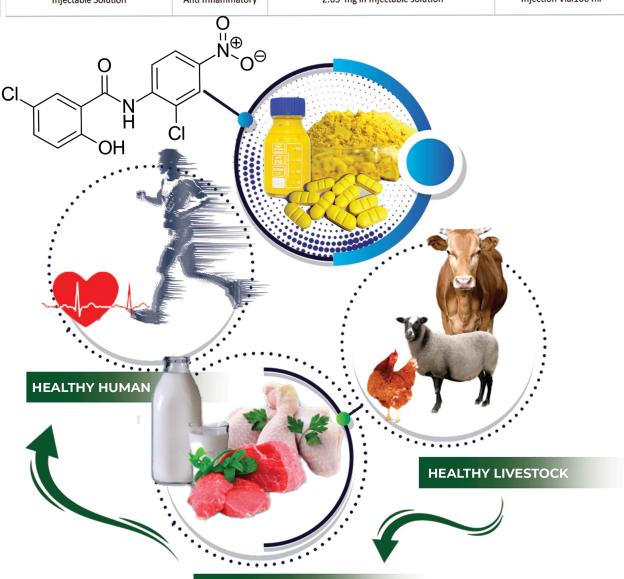
	Nervous system									
			Analgesid	:						
			Opioids							
Item	APIs	Cas No	Indication	Available forms	Status	Method of Analysis				
1	Buprenorphine Hydrochloride	53152-21-9	Opioid addiction treatment	API powder	Available	ВР				
2	Morphine Sulfate	6211-15-0	Chronic, moderate to severe pain management	API powder	Available	USP,BP				
3	Morphine Hydrochloride	52-26-6	Chronic, moderate to severe pain management	API powder	Available	ВР				
4	Hydrocodone Bitartrate	34195-34-1	Moderate to severe pain management	API powder	Available	USP,BP				
5	Codeine Phosphate	41444-62-6	Mild to moderate pain management	API powder	Available	USP,BP				
6	Tramadol Hydrochloride	36282-47-0	Moderate to moderately severe pain management	API powder	Available	JP,BP				
7	Thebaine	115-37-7	Intermediate	powder	Available	In-House				
8	Noscapine Hydrochloride	912-60-7	Antitussive	API powder	Available	BP, JP				
9	Noscapine Base	128-62-1	Antitussive	API powder	Available	JP , USP,BP				
10	Papaverine Hydrochloride	61-25-6	Smooth muscle spasm and cerebral and peripheral ischemia associated with arterial spasm treatment	API powder	Available	USP,BP				
11	Oxycodone Hydrochloride	124-90-3	Moderate to severe pain management	API powder	Available on order	USP				
		Drugs us	sed in Addicti	ive Disorde	ers					
			Opioid Antago	nists						
1	Naltrexone Hydrochloride	16676-29-2	Alcohol dependence and opioid addiction management	API powder	Available	USP				
2	Naltrexone Base	16590-41-3	Alcohol dependence and opioid addiction management	API powder	Available	In-House				
3	Naloxone Hydrochloride	51481-60-8	Reversal of opioid depression, including respiratory depression	API powder	Available on order	USP				
4	Methadone Hydrochloride	1095-90-5	Severe pain management, Opioid addiction treatment	API powder	Available	USP,BP				

Other Analgesics and Antipyretics									
Item	API's	Cas No	Indication	Available forms	Status	Method of Analysis			
1	Paracetamol (Acetaminophen)	103-90-2	Analgesic and antipyretic	API powder/DC 96%/DC 90%/ Inj. (none steril)grade	Available	USP/In-House/In- House/USP			
2	Aspirin (Acetylsalicylic Acid)	50-78-2	Treatment of pain, fever, inflammation, migraines, API powder/API and reducing the risk of crystal Ava major adverse form/Granules cardiovascular events		Available	ВР			
			Antidepro	essants					
1	Fluoxetine Hydrochloride	56296-78-7	Major depressive disorder treatment	API powder	Available	USP			
2	Fluvoxamine Maleate	61718-82-9	Obsessive compulsive disorder (OCD) treatment	API powder	Available	ВР			
			Antipsy	chotics					
1	Quetiapine Hemifumarate	111974-72-2	Bipolar disorder and schizophrenia treatment	API powder	Available	USP			
2	Risperidone	106266-06-2	Schizophrenia, autistic disorder, acute mania and bipolar disorder treatment	API powder	Available on order	ВР			
			Antiepil	eptics					
1	Pregabalin	148553-50-8	Neuropathic pain treatment, and partial-onset seizures management	API powder	Available	ВР			
			Other Nervous	System Drugs	3				
1	Dextromethorphan Hydrobromide	6700-34-1	Cough suppressant	API powder	API powder	USP			

Temad
Active Pharmaceutical Ingredients

# **Veterinary Medicine**

API	Under Development										
(Product List)	FINISHED PRODUCT	Drug Class/Group	Composition (Each ML Contains)	PACKAGING							
Aspirin	Suitable powder Anti Inflammatory		250 mg Acetyl Salicylic Acid	Bag in Drums							
Enrofloxacin	Oral Solution10% Injectable Solution 5% & 10%	Antibiotic	50 mg in injection & 100 mg in oral	Vial 50 ml & Oral Pet							
Florfenicol	Oral Solution10% Injectable Solution 30% &Powder 50%	Antibiotic	100 mg in oral & 500 mg in powder & 300 mg injection	Injection Vial 50 ml & Oral Pet							
Niclosamide Piperazine	Oral Suspension 1250 mg in Blister as Tablet	Anti Helminthic	1250 mg in tablet & 200 mg in oral suspension	10 Blister in Box							
Dexamethasone Phosphate	Injectable Solution	Anti Inflammatory	2.63 mg in Injectable solution	Injection Vial100 ml							



	Cardiovascular System									
	- , -:		Lipid Modifying	Agents						
Item	API's	Cas No	Indication	Available forms	Status	Method of Analysis				
1	Atorvastatin Calcium	134523-03-8	Dyslipidemia treatment	API powder	Available	USP				
2	Rosuvastatin Calcium	147098-20-2	Triglyceridemia, Primary Dysbetalipoproteinemia, and Homozygous Familial Hypercholesterolemia treatment	API powder	Under Development	ВР				
Antihypertensives										
1	Prazosin Hydrochloride	Available on order	USP,BP							
			Genito Urinary System a	nd Sex Hormone	es					
			Urological [	Orugs						
1	Dapoxetine Hydrochloride	129938-20-1	Premature ejaculation treatment	API powder / Pellets	Available	In-House				
Drugs Used in Benign Prostatic Hypertrophy										
1	Tamsulosin Hydrochloride	106463-17-6	Benign prostatic hyperplasia treatment	API powder/pellets	Available on order	BP, USP				
			Antiandro	gens						
1	Cyproterone Acetate	427-51-0	Male hyper sexuality in males treatment, palliative therapy in prostatic carcinoma, and in combination with estrogen, therapy of severe acne and hirsutism in females	API powder	Available	ВР				
			Alimentary Tract and	d Metabolism						
			Drugs Used in I	Diabetes						
			Blood glucose lowe	ering drugs						
1	Metformin	657-24-9	Antidiabetic agent, management of antipsychotic-induced weight gain, type 2 diabetes prevention, and the treatment and prevention of polycystic ovary syndrome (PCOS)	API powder/DC 95%	Available	USP				
2	Metformin Hydrochloride	1115-70-4	Antidiabetic agent	Micronized powder	Available	USP				
3	Pioglitazone Hydrochloride	112529-15-4	Antihyperglycemic	API powder	Available	USP				
4	Sitagliptin Phosphate Monohydrate	654671-77-9	Dipeptidyl peptidase-4 (DPP-4) inhibitor, improves glycemic control in patients with type 2 diabetes mellitus	API powder	Under Development	USP				



			Vitamins						
Item	API's	Cas No	Indication	Available forms	Status	Method of Analysis			
1	Thiamine Hydrochloride (vitamin B1)	67-03-8	Beriberi, Wernicke Encephalopathy and Thiamin Deficiency treatment	API powder / Inj. (none steril) Grade	Available	EP, BP			
			Anti-infective for Syste	emic Use					
			Antibacterial						
			Fluoroquinolone	5					
1	Ofloxacin	82419-36-1	Mild to moderate infection treatment	API powder	Available	USP			
2	Ciprofloxacin Hydrochloride	93107-08-5	Various infections treatment	API powder / Inj. (none steril) Grade	Available	USP			
3	Ciprofloxacin Base	85721-33-1	Various infections treatment	API powder / Inj. (none steril) Grade	Available	USP			
4	Levofloxacin	100986-85-4	Various infections treatment	API powder / Micronized powder/Inj. (none steril) Grade	Available	USP			
	Macrolides								
1	Erythromycin Ethylsuccinate	1264-62-6	Various infections treatment	API powder	Available on order	EP			
2	Clarithromycin	81103-11-9	Various infections treatment	API powder/Inj. (none steril) Grade	Available on Order	EP, BP			
			Antivirals						
1	Acyclovir	59277-89-3	Herpes zoster, genital herpes, and chickenpox treatment	API powder	Available on Order	USP			
			Antiparasitic prod	ucts					
			Antiprotozoals						
1	Hydroxychloroquine Sulfate	747-36-4	Antimalarias  Uncomplicated malaria, rheumatoid arthritis, chronic discoid lupus erythematous, and systemic lupus erythematous treatment	API powder	Available	USP			
			Musculo-skeletal S	ystem					
			Anti-inflammatory and Anti	rheumatic					
			Coxicbs						
1	Celecoxib	169590-42-5	Osteoarthritis (OA) and rheumatoid arthritis (RA) management	API powder	Available	USP			
			Respiratory Syst	(Libertina Pa					
1	Ketotifen Fumarate	34580-14-8	Atopic asthma, various allergic symptoms and disorders treatment	API powder	Available	ВР			



# Temad

Finished Dosage Form (FDF)



Methadone HCl 25 mg/5ml-Syrup

Noscatem (Noscapine HCl 5mg/5ml) - Suspension







**Opium Tincture 1%-Syrup** 

Buprenorphine 2 mg - Tab	Morphine Sulfate 10 mg - Tab
Methadone HCl 40 mg & 20mg & 5mg - Tab	Acetaminophen/Oxycodone 325 / 5mg - Tab
Tramadol 100 mg - Tab	Hydroxychloroquine Sulfate 200 mg - Tab
	Oxycodone 5mg – Tab
Methadone HCl 25 mg/ 5ml – Syrup	Expectorant Codeine (Guaifenesin / Pseudoephedrine HCl / Codeine Phosphate) (100/ 30 /10mg) / 5ml -Syrup
Opium Tincture 1% -Syrup	Guaicodin (Guaifenesin/ Codeine Phosphate) (100 / 10mg / 5ml) - Syrup
Emotem (Ondansetron HCl 4mg / 5ml) - Syrup	Noscatem (Noscapine HCl 5mg/5ml) - Suspension
	Omeprazole 20 mg - Cap
	Esomeprazole 40 mg - Cap
	Pantoprazole 40 mg - Cap

# **Coming Soon**

# **Pharmaceutical Pellets**

								1
Item	Pellets	CAS NO.	EP	Quality USP BP		JР	Documentation CTD	Export Reference
1	Lansoprazole Pellets (8.5%)							Indonesia
2	Omeprazole Pellets (8.5%)						•	Indonesia, Iraq
3	Pantoprazole Sodium Pellets (15% & 20%)							-
4	Esomeprazole Pellets (22.5%)						•	-
5	Itraconazole Pellets (22%)			in-Ho	use		•	

# **Export Products**

T.	. 757	C.C.N.	Quality				Documentation	TI
Item	APIs	CAS. No.	EP	USP	BP	JP	CTD	History of Export
1	Codeine Base	6059-47-8	✓	✓	✓		✓	Belgium, Kazakhstan, Vietnam, Venezuela, Switzerland,
2	Codeine Phosphate	41444-62-6	✓	✓	✓		✓	India , Iraq, Congo, Syria, Ivory Coast, Colombia, Kenya,Germany,Denmark,Nigeria, Thailand,Taiwan,Lebanon,Switzerland,Brazil
3	Noscapine Base/HCl	128-62-1/912-60-7	✓	✓	✓	✓	✓	Japan, Taiwan, China, South Korea, Indonesia , Germany, Singapore, India
4	Methadone HCl	1095-90-5	✓	✓	✓		✓	Thailand, Switzerland,Canada
5	Buprenorphine HCl	53152-21-9	✓		✓		✓	India
6	Morphine Sulfate	6211-15-0	✓	✓	✓		✓	UK, Taiwan, Thailand, Guyana, India
7	Morphine HCl	52-26-6	✓		✓		✓	Taiwan, Thailand,Russia
8	Opium Tincture 1%. 2%		✓	✓	✓		✓	Czech Republic, Taiwan, New Zealand, Zimbabwe
9	Oxycodone HCl	124-90-3		✓			✓	Syria
10	Oxymorphone HCl	357-07-3		✓			✓	Switzerland, Bangladesh
11	Pholcodine(monohydrate)	6254-99-5	✓		✓		✓	Hong Kong, Nigeria
12	Papaverine HCl	61-25-6	✓	✓	✓		✓	India, Chile, Germany, Italy, Russia, Hong Kong, Georgia,
13	Naltrexone HCl	16676-29-2		✓			✓	China, South Korea, Brazil, Canada, Switzerland, Taiwan, India
14	Naloxone HCl	51481-60-8		✓			✓	Srilanka, India, Russia
15	Hydrocodone Bitartrate	34195-34-1		✓			✓	Colombia, Syria, Peru
16	Paracetamol Powder/DC	103-90-2	✓	✓	✓		✓	Iraq, Russia, South Africa,Ivory Coast, Syria, Afghanistan
17	Tramadol HCl	36282-47-0	✓	✓	✓		✓	Pakistan, Syria, Colombia, Ireland



- Asia
   Bangladesh, China, Hong kong, India, Japan, Kazakhstan, Malaysia, Pakistan
   South Korea, Syria, Singapore, Taiwan, Thailand, Uzbekistan, Vietnam, Georgia Iraq, Afghanistan, Srilanka
- Europe
   Belarus, Belgium, Czech Republic, Denmark, Germany, United Kingdom Netherlands, Russia, Switzerland, Turkey, Irelond
- Africa
   Algeria, Congo, Egypt, Nigeria, South Africa, Uganda, Zimbabwe
   Zambia, Ghana, Ivory Coast, Kenya
- South America
   Costa Rica, Chile, Colombia, Guatemala
   Venezuela, Brazil, Peru, Guyana
- North America Canada
- Oceania New Zealand

No.	Intermediates	CAS No.	Formula	Product
1	Morphinone dicarbamate		C <sub>22</sub> H <sub>23</sub> NO <sub>7</sub>	Naltrexone. HCl Naloxone. HCl Oxymorphone. HCl Oxycodone. HCl
2	14-Hydroxy morphinone dicarbamate		C <sub>22</sub> H <sub>23</sub> NO <sub>8</sub>	Naltrexone. HCl Naloxone. HCl Oxymorphone. HCl Oxycodone. HCl
3	14-Hydroxy dihydro morphinone dicarbamate		C <sub>22</sub> H <sub>25</sub> NO <sub>8</sub>	Naltrexone. HCl Naloxone. HCl Oxymorphone. HCl Oxycodone. HCl
4	Naltrexone base	16590-41-3	$\mathrm{C}_{20}\mathrm{H}_{23}\mathrm{NO}_4$	Naltrexone. HCl
5	Naloxone base	465-65-6	$C_{19}H_{21}NO_4$	Naloxone. HCl
6	Oxymorphone	76-41-5	$\mathrm{C}_{17}\mathrm{H}_{19}\mathrm{NO}_4$	Oxymorphone. HCl
7	Oxycodone	76-42-6	C <sub>18</sub> H <sub>21</sub> NO <sub>4</sub>	Oxycodone. HCl
8	Codeinone	467-13-0	$C_{18}H_{19}NO_3$	Oxycodone. HCl
9	14-Hydroxy codeinone		$\mathrm{C}_{18}\mathrm{H}_{19}\mathrm{NO}_4$	Oxycodone. HCl
10	Thevinone	15358-22-2	$\mathrm{C}_{23}\mathrm{H}_{27}\mathrm{NO}_4$	Buprenorphine. HCl
11	Dihydro Thevinone	16196-82-0	$C_{23}H_{29}NO_4$	Buprenorphine. HCl
12	Thevinol		$C_{27}H_{39}NO_4$	Buprenorphine. HCl
13	3-O-methyl norbuprenorphine		$C_{26}H_{37}NO_4$	Buprenorphine. HCl
14	Norbuprenorphine	78715-23-8	$C_{25}H_{35}NO_4$	Buprenorphine. HCl
15	Buprenorphine base	52485-79-7	C <sub>29</sub> H <sub>41</sub> NO <sub>4</sub>	Buprenorphine. HCl
16	Dihydro codeine	125-28-0	C <sub>18</sub> H <sub>23</sub> NO <sub>3</sub>	Dihydrocodeine phosphate
17	Hydrocodone	125-29-1	C <sub>18</sub> H <sub>21</sub> NO <sub>4</sub>	Hydrocodone bitartrate
18	Noroxymorphone	33522-95-1	C16H17NO4	Naltrexone.HCl Naloxone.HCl





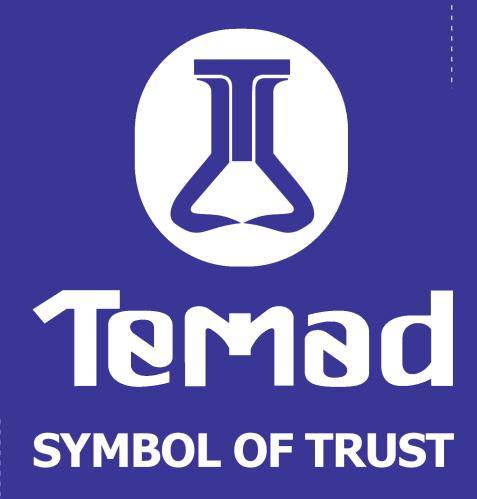
Our R&D team consists of highly qualified experts and postgraduates specializing in various fields of pharmaceuticals and basic sciences. They utilize intricate chemistry processes to generate multi-step intermediates and active pharmaceutical ingredients, encompassing hazardous, narcotic, and non-narcotic Active pharmaceutical ingredients(APIs). Our objective is to introduce affordable and innovative pharmaceutical technologies to both domestic and international markets.

Moreover, our R&D team excels in the production of both semi-finished products, including (pellets, and DC granules) and finish products (various pharmaceutical forms) in accordance with cutting-edge global standards.

Their expertise lies in creating technical knowledge in the production of active pharmaceutical ingredients. The research team excels in multiple reaction types including:

- Coupling reactions
- Reduction
- Oxidation
- Grignard reactions
- N-alkylation

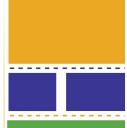
- O-alkylation
- Enantiomers Separation
- Cyclization
- N- demethylation and etc.



**WE THINK OF WORLD CLASS QUALITY** 

# **Temad Factory**

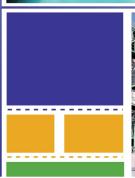
















# **Mashhad Manufacturing Site:**

- 11 production lines and GMP certificated
- 4000 MT production capacity for non-narcotic API annually
- The land with an area of 10 hectares
- The biggest manufacturer of human and veterinary APIs
- Non-sterile injectable APIs and Semi-Finished





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