

**CENTER FOR DRUG EVALUATION AND RESEARCH**

**APPROVAL PACKAGE FOR:**

**APPLICATION NUMBER**

**20-855**

**Chemistry Review(s)**



**NDA 20-855  
REVIEW # 2**

**MESNEX (mesna) TABLETS**

**JOSEPHINE M. JEE  
REVIEW CHEMIST**

**DIVISION OF ONCOLOGY  
DRUG PRODUCTS  
HFD-150/810**

**CHEMISTRY,  
MANUFACTURING AND  
CONTROLS REVIEW**



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**NDA 20-855  
REVIEW # 3**

**MESNEX (mesna) TABLETS**

**JOSEPHINE M. JEE  
REVIEW CHEMIST**

**DIVISION OF ONCOLOGY  
DRUG PRODUCTS  
HFD-150/810**

**CHEMISTRY,  
MANUFACTURING AND  
CONTROLS REVIEW**



# CHEMISTRY REVIEW



NDA 20-855 Review # 3

Chemistry Review Data Sheet  
MESNEX (mesna) Tablets

Review Notes

## Chemistry NDA Review Data Sheet

1. NDA 20-855
2. REVIEW #: 3
3. REVIEW DATE: 20-MAR-2002
4. REVIEWER: JOSEPHINE M. JEE
5. PREVIOUS DOCUMENTS:

<u>Previous Documents</u>	<u>Document Date</u>
Original	20-Mar-1997
	16-May-1997
	17-Sep-1997
	16-Dec-1997
	23-Feb-1998
 <b>Review # 1</b>	 <b>25-Mar-1998</b>
<b>Deficiency communication</b>	
Amendment [BZ]	24-AUG-2001
Amendment [BM]	24-SEP-2001
Amendment [NC]	25-SEP-2001
Amendment [BS]	02-OCT-2001
Amendment [BL]	05-OCT-2001
Amendment [BB]	08-OCT-2001
Facsimile (Carton Labels)	11-FEB-2002
e-mail (Carton and Blister Labels)	21-FEB-2002
Amendment [BC]	22-FEB-2002
Telecon Meeting Minutes	28-FEB-2002
Amendment [NC]	04-MAR-2002
<b>Review # 2 (deficiency communication)</b>	<b>11-MAR-2002</b>

6. SUBMISSION(S) BEING REVIEWED:

<u>Submission(s) Reviewed</u>	<u>Document Date</u>
-------------------------------	----------------------



## CHEMISTRY REVIEW



NDA 20-855 Review # 3

Chemistry Review Data Sheet  
MESNEX (mesna) Tablets

Review Notes

Facsimile (Response to comments)	19-MAR-2002 (7:00 PM)
BMS E-mail	20-MAR-2002 (7:31 AM)
BMS E-mail	20-MAR-2002 (8:24 AM)
BMS E-Mail	20-MAR-2002 (1:43 PM)

### 7. NAME & ADDRESS OF APPLICANT:

Name: (Former Owner) Weismuellerstrasse 45  
D-60314 Frankfurt, Germany  
ASTA Medica AG  
Representative: 5 Research Parkway  
Bristol-Myers Squibb Wallingford, CT 06492  
Name: (New Owner) Daimlerstrasse 40  
Baxter Oncology GmbH D-60314, Frankfurt

**NOTE:** As per Facsimile date 19-MAR-2002, 7:00 PM, Baxter Oncology GmbH is changed to Baxter Healthcare Corporation, Deerfield, Illinois 60015 USA

### 8. DRUG PRODUCT NAME/CODE/TYPE:

- a) Proprietary Name: MESNEX TABLETS
- b) Non-Proprietary Name (USAN): mesna
- c) Code Name/# (ONDC only): MP-123456B
- d) Chem. Type/Submission Priority (ONDC only):
  - Chem. Type: 3
  - Submission Priority: S

### 9. LEGAL BASIS FOR SUBMISSION:

MESNEX, TABLETS, 400 mg, ASTA Medica AG (Former Owner)  
Baxter Oncology GmbH – New Owner

**NOTE:** As per Facsimile date 19-MAR-2002, 7:00 PM, Baxter Oncology GmbH is changed to Baxter Healthcare Corporation, Deerfield, Illinois 60015 USA

### 10. PHARMACOL. CATEGORY:

# CHEMISTRY REVIEW

NDA 20-855 Review # 3

Chemistry Review Data Sheet  
MESNEX (mesna) Tablets

Review Notes

11. DOSAGE FORM:  
Tablets

12. STRENGTH/POTENCY:  
400 mg/ tablet

13. ROUTE OF ADMINISTRATION:  
Oral

14. Rx/OTC DISPENSED:  Rx  OTC

15. SPOTS (SPECIAL PRODUCTS ON-LINE TRACKING SYSTEM)[Note21]:  
N/A

16. CHEMICAL NAME, STRUCTURAL FORMULA, MOLECULAR FORMULA,  
MOLECULAR WEIGHT:

Sodium-2-mercaptoethane sulfonate

HS-CH<sub>2</sub>-CH<sub>2</sub>SO<sub>3</sub>·Na<sup>+</sup>

Mol. Formula: C<sub>2</sub>H<sub>5</sub>O<sub>3</sub>S<sub>2</sub>Na

M.W. 164.18

17. RELATED/SUPPORTING DOCUMENTS:

**A. DMFs:**

DMF #	TYP E	HOLDE R	ITEM REFERENC ED	CODE <sub>1</sub>	STATU S <sub>2</sub>	DATE REVIEW COMPLET ED	COMMEN TS
—	II	—	Mesna Drug Substance	3	Adequat e	29-NOV-2001	
—	III	—	—	3	Adequat e	18-SEP-1997	This DMF was adequate in Review # 1
—	I	—	—	2	Type 1 DMF	10-Sep-2001 (Inspection)	Type I DMF Satisfactory Inspection



# CHEMISTRY REVIEW



NDA 20-855 Review # 3

Chemistry Review Data Sheet  
MESNEX (mesna) Tablets

Review Notes

<sup>1</sup> Action codes for DMF Table:

1 – DMF Reviewed.

Other codes indicate why the DMF was not reviewed, as follows:

2 – Type 1 DMF

3 – Reviewed previously and no revision since last review

4 – Sufficient information in application

5 – Authority to reference not granted

6 – DMF not available

7 – Other (explain under "Comments")

<sup>2</sup> Adequate, Inadequate, or N/A (There is enough data in the application, therefore the DMF did not need to be reviewed)

### Other Documents:

DOCUMENT	APPLICATION NUMBER	DESCRIPTION
	IND <del>          </del>	Mesna Tablets
	NDA 19-884	Mesnex Injection
	NDA 20-855	Mesna Tablets (CMC Review # 1)
	NDA 20-855	Mesna Tablets (CMC Review # 2)

### 18. STATUS:

#### ONDC:

CONSULTS/ CMC RELATED REVIEWS	RECOMMENDATI ON	DATE	REVIEWER
Biometrics	Acceptable	28-Feb-2002	Jasmine Choy
EES	Acceptable	10-Sep-2001	Melissa Garcia, CDER/OC
Pharm/Tox	Acceptable	25-Sep-2001	Wendelyn Schmidt, Ph.D.
Biopharm	Acceptable	08-Feb-2002	Zongyi John Duan, Ph.D.
LNC	Acceptable by	23-Jun-1997	D. Boring, Ph.D.
Methods Validation	Pending*	12-Mar-2002	Josephine M. Jee
OPDRA	Pending		
EA	Acceptable	23-Feb-1998	Josephine M. Jee
Microbiology	Not Applicable		

\* Pending after approval specifications and tests are finalized



## CHEMISTRY REVIEW

Executive Summary Section  
NDA 20-855 Review # 2 MESNEX (mesna) Tablets Review Notes  
The Chemistry Review for NDA 20-855

### The Executive Summary

#### I. Recommendations

##### A. Recommendation and Conclusion on Approvability

NDA 20-855 is recommended for approval from the chemistry perspective based on the information submitted in the original NDA 20-855, 24-AUG-2001 amendment, amendments listed above (items 5 and 6), and the approved NDA 19-884, MESNEX Injection. The amendment dated 24-AUG-2001 contained the applicant's response to those deficiencies cited in the 25-March-1998 Not Approvable letter (review #1) and proposed labeling. There are minor CMC comments related to labeling in the How Supplied section of the packaging insert, carton label, and blister label, CMC (review # 2). In addition, the [redacted] in batches submitted for stability studies, tests for requalification for mesna drug substance, and reprocessing for mesna tablets deficiencies were communicated to the applicant on 13-MAR-2002 via facsimile by Debra Vause, Project Manger.

BMS, the US agent for Baxter Healthcare Corporation, has sent amendment via facsimile on March 19, 2002 and via e-mails on March 20, 2002 providing response to comments listed in CMC Review # 2. These responses were adequately addressed to issues listed in CMC Review # 2.

##### B. Recommendation on Phase 4 (Post-Marketing) Commitments, Agreements, and/or Risk Management Steps, if Approvable

None.

#### II. Summary of Chemistry Assessments

##### A. Description of the Drug Product(s) and Drug Substance(s)

Mesnex (mesna) 400 mg immediate release Tablets are supplied as a white, oblong, scored biconvex film-coated tablets with the imprint M4. Mesnex Tablets are made by [redacted] method. Mesnex is a detoxifying agent to inhibit the hemorrhagic cystitis induced by ifosfamide.

The active ingredient mesna is a synthetic sulfhydryl compound identified chemically as sodium-2-mercaptoethanesulfonate.

**B. Description of How the Drug Product is Intended to be Used**

The drug product is intended to be used orally. The maximum recommended daily dose is 400 mg.

**C. Basis for Approvability or Not-Approval Recommendation**

NDA 20-855 is recommended for approval from a CMC perspective. Chemistry review #1 on 25-Mar-1998 recommended Not Approvable. However, the information provided in the 24-AUG-2001 amendment has responded to the major CMC concerns listed in review #1. The comments cited in review # 2 were for minor changes. The responses received from the applicant in March 19, 2002 (facsimile) and in March 20, 2002 (e-mails) have adequately addressed all comments listed in review # 2. In addition, adequate labels and labeling have been provided from a CMC perspective.

**III. Administrative****A. Reviewer's Signature**

Josephine Jee

**B. Endorsement Block**

ChemistName/Date: Josephine Jee/ 20-MAR-2002  
ChemistryTeamLeaderName/Date: Richard Lostritto  
ProjectManagerName/Date: Debra Vause

**C. CC Block**

cc:  
Org. NDA 20-855 Amendment  
HFD-150/Division File  
HFD-150/J.Jee/20-MAR-2002  
HFD-150/D.Vause  
HFD-150/R.Lostritto  
HFD-810/J.Simmons  
R/D Init by:  
filename: NDA20-855REV#3.r000.doc

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/s/

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Josephine Jee  
3/21/02 09:47:06 AM  
CHEMIST

Richard Lostritto  
3/21/02 10:03:55 AM  
CHEMIST



# Chemistry NDA Review Data Sheet

1. NDA 20-855
2. REVIEW #: 2
3. REVIEW DATE: 11-MAR-2002
4. REVIEWER: JOSEPHINE M. JEE
5. PREVIOUS DOCUMENTS:

<u>Previous Documents</u>	<u>Document Date</u>
Original	20-Mar-1997
	16-May-1997
	17-Sep-1997
	16-Dec-1997
	23-Feb-1998
<b>Review # 1</b>	<b>25-Mar-1998</b>
<b>Deficiency communication</b>	

6. SUBMISSION(S) BEING REVIEWED:

<u>Submission(s) Reviewed</u>	<u>Document Date</u>
Amendment [BZ]	24-AUG-2001
Amendment [BM]	24-SEP-2001
Amendment [NC]	25-SEP-2001
Amendment [BS]	02-OCT-2001
Amendment [BL]	05-OCT-2001
Amendment [BB]	08-OCT-2001
Facsimile (Carton Labels)	11-FEB-2002
e-mail (Carton and Blister Labels)	21-FEB-2002
Amendment [BC]	22-FEB-2002
Telecon Meeting Minutes	28-FEB-2002
Amendment [NC]	04-MAR-2002



# CHEMISTRY REVIEW



## Chemistry Review Data Sheet

### 7. NAME & ADDRESS OF APPLICANT:

Name: (Former Owner) ASTA Medica AG  
Weismuellerstrasse 45  
D-60314 Frankfurt, Germany

Representative: Bristol-Myers Squibb  
5 Research Parkway  
Wallingford, CT 06492

Name: (New Owner) Baxter Oncology GmbH  
Daimlerstrasse 40  
D-60314, Frankfurt

### 8. DRUG PRODUCT NAME/CODE/TYPE:

- a) Proprietary Name: MESNEX TABLETS
- b) Non-Proprietary Name (USAN): mesna
- c) Code Name/# (ONDC only): MP-123456B
- d) Chem. Type/Submission Priority (ONDC only):
  - Chem. Type: 3
  - Submission Priority: S

### 9. LEGAL BASIS FOR SUBMISSION:

MESNEX, TABLETS, 400 mg, ASTA Medica AG (Former Owner)  
Baxter Oncology GmbH – New Owner

### 10. PHARMACOL. CATEGORY:

### 11. DOSAGE FORM:

Tablets

### 12. STRENGTH/POTENCY:

400 mg/ tablet

### 13. ROUTE OF ADMINISTRATION:

Oral

14. Rx/OTC DISPENSED:  Rx  OTC

### 15. SPOTS (SPECIAL PRODUCTS ON-LINE TRACKING SYSTEM)[Note22]:

N/A



# CHEMISTRY REVIEW



## Chemistry Review Data Sheet

### 16. CHEMICAL NAME, STRUCTURAL FORMULA, MOLECULAR FORMULA, MOLECULAR WEIGHT:

Sodium-2-mercaptoethane sulfonate

HS-CH<sub>2</sub>-CH<sub>2</sub>SO<sub>3</sub>Na<sup>+</sup>

Mol. Formula: C<sub>2</sub>H<sub>5</sub>O<sub>3</sub>S<sub>2</sub>Na

M.W. 164.18

### 17. RELATED/SUPPORTING DOCUMENTS:

#### A. DMFs:

DMF #	TYPE	HOLDER	ITEM REFERENCED	CODE <sup>1</sup>	STATUS <sup>2</sup>	DATE REVIEW COMPLETED	COMMENTS
—	II	—	Mesna Drug Substance	3	Adequate	29-NOV-2001	
—	III	—	—	3	Adequate	18-SEP-1997	This DMF was adequate in Review # 1
—	I	—	—	2	Type 1 DMF	10-Sep-2001 (Inspection)	Type I DMF Satisfactory Inspection

<sup>1</sup> Action codes for DMF Table:

1 – DMF Reviewed.

Other codes indicate why the DMF was not reviewed, as follows:

2 – Type 1 DMF

3 – Reviewed previously and no revision since last review

4 – Sufficient information in application

5 – Authority to reference not granted

6 – DMF not available

7 – Other (explain under "Comments")

<sup>2</sup> Adequate, Inadequate, or N/A (There is enough data in the application, therefore the DMF did not need to be reviewed)

#### Other Documents:

DOCUMENT	APPLICATION NUMBER	DESCRIPTION
	IND —	Mesna Tablets
	NDA 19-884	Mesnex Injection
	NDA 20-855	Mesna Tablets (CMC Review # 1)



# CHEMISTRY REVIEW



## Chemistry Review Data Sheet

### 18. STATUS:

#### ONDC:

CONSULTS/ CMC RELATED REVIEWS	RECOMMENDATION	DATE	REVIEWER
Biometrics	Acceptable	28-Feb-2002	Jasmine Choy
EES	Acceptable	10-Sep-2001	Melissa Garcia, CDER/OC
Pharm/Tox	Acceptable	25-Sep-2001	Wendelyn Schmidt, Ph.D.
Biopharm	Acceptable	08-Feb-2002	Zongyi John Duan, Ph.D.
LNC	Acceptable by	23-Jun-1997	D. Boring, Ph.D.
Methods Validation	Pending*	12-Mar-2002	Josephine M. Jee
OPDRA	Pending		
EA	Acceptable	23-Feb-1998	Josephine M. Jee
Microbiology	Not Applicable		

\* Pending after approval specifications and tests are finalized

APPEARS THIS WAY  
ON ORIGINAL

APPEARS THIS WAY  
ON ORIGINAL





# The Chemistry Review for NDA 20-855

## The Executive Summary

### I. Recommendations

#### A. Recommendation and Conclusion on Approvability

NDA 20-855 is recommended for approval from the chemistry perspective based on the information submitted in the original NDA 20-855, 24-AUG-2001 amendment, and amendments listed above (item 6), and the approved NDA 19-884, MESNEX Injection.

The amendment dated 24-AUG-2001 contained the applicant's response to those deficiencies cited in the 25-March-1998 Not Approvable letter (review #1) and proposed labeling. There are minor CMC deficiencies related to labeling in the How Supplied section of the packaging insert, carton label, and blister label, see pages 16 to 20 of CMC (review # 2). In addition, the [redacted] in batches submitted for stability studies, tests for requalification for mesna drug substance, and reprocessing for mesna tablets deficiencies have been communicated to the applicant on 13-MAR-2002 via facsimile by Debra Vause, Project Manger. These responses and revisions can be submitted as post-marketing commitments.

#### B. Recommendation on Phase 4 (Post-Marketing) Commitments, Agreements, and/or Risk Management Steps, if Approvable

The applicant should revise their regulatory specifications to include recommended specification for dissolution for mesna tablets. They should provide full accountability and reconciliation for [redacted] batches used in their stability studies. The requalification procedures for mesna should be revised to include full testing as outlined in their regulatory specifications and any reprocessing of mesna tablets should notify the Agency.

NDC numbers should appear in the How Supplied section of the labeling and in the carton label. ASTA Medica should be replaced by Baxter Oncology GmbH, since ownership was transferred as of January 1, 2002. In addition, the blister label need to be revised.

### II. Summary of Chemistry Assessments

#### A. Description of the Drug Product(s) and Drug Substance(s)

Mesnex (mesna) 400 mg immediate release Tablets are supplied as a white, oblong, scored biconvex film-coated tablets with the imprint M4. Mesnex Tablets are made by [redacted] method. Mesnex is a detoxifying agent to inhibit the hemorrhagic cystitis induced by ifosfamide.

The active ingredient mesna is a synthetic sulfhydryl compound identified chemically as sodium-2-mercaptoethanesulfonate. [redacted]



## CHEMISTRY REVIEW



NDA 20-855 Review # 2      Executive Summary Section  
MESNEX (mesna) Tablets

Review Notes

### B. Description of How the Drug Product is Intended to be Used

The drug product is intended to be used orally. The maximum recommended daily dose is 400 mg.

### C. Basis for Approvability or Not-Approval Recommendation

NDA 20-855 is recommended for approval from a CMC perspective. Chemistry review #1 on 25-Mar-1998 recommended Not Approvable. However, the information provided in the 24-AUG-2001 amendment has responded to the major CMC concerns. The comments cited in this review are for minor changes.

## III. Administrative

### A. Reviewer's Signature

Josephine Jee

/s/

### B. Endorsement Block

ChemistName/Date: Josephine Jee/28-FEB-2002

Revised : Josephine Jee/07-MAR-2002, 11-MAR-2002, 14-MAR-2002,  
19-MAR-2002

ChemistryTeamLeaderName/Date: Richard Lostritto

ProjectManagerName/Date: Debra Vause

### C. CC Block

cc:

Org. NDA 20-855 Amendment

HFD-150/Division File

HFD-150/J.Jee/2/28/02

HFD-150/D.Vause

HFD-150/R.Lostritto

HFD-810/J.Simmons

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/s/

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Josephine Jee  
3/19/02 03:50:25 PM  
CHEMIST

Richard Lostritto  
3/19/02 11:01:29 PM  
CHEMIST

**DIVISION OF ONCOLOGY DRUG PRODUCTS**  
**Review of Chemistry, Manufacturing, and Controls**

**NDA #:** 20-855                      **CHEM. REVIEW #:** 1                      **REVIEW DATE:** 3/23/98

<u>SUBMISSION TYPE</u>	<u>DOCUMENT DATE</u>	<u>CDER DATE</u>	<u>ASSIGNED DATE</u>
Original	March 20, 1997	March 25, 1997	April 7, 1997
Original	May 16, 1997	May 19 1997	May 27, 1997
Original	Sept. 17, 1997	Sept. 22, 1997	Sept. 23, 1997
Original	Dec. 16, 1997	Dec. 17, 1997	Dec. 22, 1997
Original	Feb. 23, 1998	Feb. 24, 1998	Feb. 26, 1998

**NAME & ADDRESS OF APPLICANT:**

ASTA Medica, inc.  
 Continental Plaza  
 401 Hackensack Ave.  
 Hackensack, N. J. 07601

**DRUG PRODUCT NAME**

Proprietary:

Mesnex (US) and Uromitexan™ (Germany & Canada).

Nonproprietary/USAN:

Sodium-2-mercaptoethane sulfonate  
 UCB 3983, and Asta-D-7093

Code Name/#:

Chem. Type/Ther. Class:

CAS:

19767-45-4

**PHARMACOL. CATEGORY/INDICATION:**

**DOSAGE FORM:**

Tablets

**STRENGTHS:**

400 mg

**ROUTE OF ADMINISTRATION:**

Oral

**DISPENSED:**

Rx     OTC

**CHEMICAL NAME, STRUCTURAL FORMULA, MOLECULAR FORMULA, MOLECULAR WEIGHT:**

Sodium-2-mercaptoethanesulfonate  
 [HS-CH<sub>2</sub>-CH<sub>2</sub>-SO<sub>3</sub>]<sup>-</sup> Na<sup>+</sup>

M.W.: 164.18

**RELATED DOCUMENTS:**

<u>Related Doc. #</u>	<u>Holder/Applicant</u>	<u>Subject</u>	<u>Status</u>
IND	ASTA Medica	Mesna Tablets	current IND
NDA19,884	ASTA Medica	Mesnex Inj.	Approved

**SUPPORTING DOCUMENTS:**

<u>Support Doc. #</u>	<u>Holder/ Applicant</u>	<u>Content/ Item</u>	<u>Status</u>	<u>Review Letter Date</u>	<u>Letter Date</u>
DMF (Type II)			Deficient	3/11/98	3/11/98
DMF (Type III)			Satisfactory		
DMF (Type I)			Satisfactory		

**CONSULTS:**

<u>Consult Type</u>	<u>Status</u>	<u>Comments</u>
Trademark - Lab. & Nomenclature Env. Assess.	Acceptable 7/10/97	O.K. on 6/23/97 by D. Boring 2/23/98 ASTA requested the withdrawal of the orig. EA and replace with a claim for categorical exclusion under 21 CFR section 25.31 (a).

**REMARKS/COMMENTS:**

See below for comments.

**CONCLUSIONS & RECOMMENDATIONS:**

This application can be considered Approvable from a CMC point of view only if the remaining deficiencies can be addressed satisfactorily. The CMC deficiencies are listed in the List of Chemistry deficiencies and comments.

cc:

Org. NDA 20-855

HFD-150/Division File

HFD-150/JJee/3-18-98

HFD-150/JJee/3-23-98 3/23/98

HFD-150/RWood

HFD-150/PGuinn

HFD-150/DPea

R/D Init by: JS 3-23-98

JS

Josephine M. Jee, Review Chemist

filename: 20855.r1d

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# CHEMISTRY REVIEW

## Division of Oncology Drug Products

TYPE AND NUMBER OF APPLICATION : NDA 20-855 - Labeling Review 1  
LABELING SUB. : 2/24/98 CDER DATE: 2/24/98 ASSIGNED DATE: 2/24/98

STATUS OF APPLICATION: Active

NAME OF SPONSOR: ASTA MEDICA

PRODUCT NAME: Mesnex<sup>®</sup> (mesna ) Tablets

Proprietary: Mesnex

Nonproprietary: mesna

CHEMICAL STRUCTURE:  $C_2H_5NaO_3S_2$



DOSAGE FORM, STRENGTH, AND ROUTE OF ADMINISTRATION:

Tablets, 400 mg Oral

PROPOSED MARKETING STATUS: Rx

PHARMACOL. CATEGORY/ INDICATION:

Package Insert:

### Description section

Adequate.

### DOSAGE AND ADMINISTRATION

Adequate.

### HOW SUPPLIED

- a. Please provide full description of tablets (e.g., color, shape, coating, scoring, and imprint) to facilitate identification of the drug product, according to 21 CFR 201.57 (k) (3).
- b. National Drug Code for mesna tablets should be included in the "How Supplied" section according to 21 CFR 201.57 (k) (3).

Unit Dose Label:

1. The label of the actual unit dose container must state the dosage form (e.g., Tablet).
2. The established name ( mesna) and 400 mg Tablet should be printed in letters that are at least half as large as the letters comprising the proprietary name. The established name should precede the manufacturer name (ASTA Medica).



**Outer package (box label):**

The outer package from which the blister pack is dispensed should bear the following information:

1. The number of tablets should be clearly displayed ( e.g., 10 400 mg Tablets should be replaced by 10 x 400 mg Tablets).
2. The declared amount, 400 mg, should follow (mesna) Tablets.
3. Expiration date should appear on the carton or box label as provided for in 21 CFR 201.17 and 211.137.
4. The lot or control number should appear on the carton or box label as provided for in 21 CFR 201.100 (b) and 211.130.
5. The line under MESNEX should be deleted.
6. Under Dosage, please delete the information provided after package insert.
5. The NDC number shall appear prominently in the top third of the principal display panel of the label as provided for in 21 CFR 207.35.
6. We recommend the following order when providing information for the box label:

**Front panel:**

- i. The number of tablets (e.g., 10 X 400 mg tablets)
- ii. NDC number
- iii. Proprietary name (MESNEX) - remove the line under MESNEX
- iv. Established name
- v. Declared amount, 400 mg.
- vi. For oral administration
- vii. Dosage statement
- viii. Storage conditions
- ix. Caution statement
- x. Names of distributor and manufacturer

**Top panel:**

- i. Lot or control number and expiration date
- ii. The number of tablets should be written as 10 x 400 mg tablets
- iii. NDC number
- iv. Proprietary name (MESNEX®) - remove the line under MESNEX®
- v. Established name
- vi. Declared amount
- vii. Name of distributor





NEW DRUG APPLICATION  
FD FORM 356H  
SECTION b Page 1 of 1

**MESNA TABLETS**

**Application Summary - Package Insert and Patient Package Insert**

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Contained in this section is the approved Package Insert for Mesnex® Injection which has been modified to include information on the tablets and the intravenous plus oral dosing schedule. The changed areas are in bold and references provided. We are also providing a draft Patient Package Insert.

**APPEARS THIS WAY  
ON ORIGINAL**

Redacted

16

pages of trade

secret and/or

confidential

commercial

information

CDER Establishment Evaluation Report  
for March 16, 1998

Application: NDA 20855/000 Priority: 3S Org Code: 150  
Stamp: 25-MAR-1997 Regulatory Due: 25-MAR-1998 Action Goal: District Goal: 23-NOV-1997  
Applicant: ASTA MEDICA (US) Brand Name: MESNEX (MESNA) 400MG TABS  
401 HACKSENSACK AVE Established Name:  
HACKENSACK, NJ 07601 Generic Name: MESNA  
Dosage Form: TAB (TABLET)  
Strength: 400 MG

FDA Contacts: L. VACCARI (HFD-150) 301-594-2473 , Project Manager  
J. JEE (HFD-150) 301-594-2473 , Review Chemist  
R. WOOD (HFD-150) 301-594-2473 , Team Leader

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Overall Recommendation:

**ACCEPTABLE on 20-FEB-1998 by M. EGAS (HFD-322) 301-594-0095**

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Establishment:

DMF No:

AADA No:

Profile: CTL OAI Status: NONE  
Last Milestone: OC RECOMMENDATION  
Milestone Date 19-FEB-1998  
Decision: ACCEPTABLE  
Reason: DISTRICT RECOMMENDATION

Responsibilities:

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Establishment: 9611095  
ASTA MEDICA AG  
D-4802, WERK KUENSEBECK, KANS  
HALLE-KUENSEBECK, , GM

DMF No:

AADA No:

Profile: CTL OAI Status: NONE  
Last Milestone: OC RECOMMENDATION  
Milestone Date 06-JUN-1997  
Decision: ACCEPTABLE  
Reason: BASED ON PROFILE

Responsibilities:

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Establishment:

DMF No:

AADA No:

Profile: TCM OAI Status: NONE  
Last Milestone: OC RECOMMENDATION  
Milestone Date 20-FEB-1998  
Decision: ACCEPTABLE

Responsibilities:

CDER Establishment Evaluation Report  
for March 16, 1998

Reason: **DISTRICT RECOMMENDATION**

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Establishment: **\_\_\_\_\_**

DMF No: **\_\_\_\_\_**

AADA No: **\_\_\_\_\_**

Profile: **CSN**

OAI Status: **NONE**

Responsibilities: **\_\_\_\_\_**

Last Milestone: **OC RECOMMENDATION**

Milestone Date **06-JUN-1997**

Decision: **ACCEPTABLE**

Reason: **BASED ON PROFILE**

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APPEARS THIS WAY  
ON ORIGINAL