

**SECTION 1. Identification of the substance/mixture and of the company/enterprise**

**1.1. Product identifier**

Product name : MIX ACID TLM  
Product code: refer to sales department

**1.2. Relevant identified uses of the substance or mixture and uses advised against**

Specific Treatment  
Sectors of use:  
Manufacture of food products[SU4]  
Product category:  
Additive for enological use

Not recommended uses  
Do not use for purposes other than those listed

**1.3. Details of the supplier of the safety data sheet**

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## SECTION 2. Hazards identification

### 2.1. Classification of the substance or mixture

2.1.1 Classification according to Regulation (EC) No 1272/2008:

Pictograms:

GHS05

Hazard Class and Category Code(s):

Skin Corr. 1B, Eye Dam. 1

Hazard statement Code(s):

H314 - Causes severe skin burns and eye damage.

H318 - Causes serious eye damage.

Corrosive product: causes severe skin burns and eye damage.

If brought into contact with eyes, the product causes serious damages to eyes, such as an opaque cornea or injury to iris.

2.1.2 Additional information:

For full text of Hazard- and EU Hazard-statements: see SECTION 16.

### 2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008:

Pictogram, Signal Word Code(s):

GHS05 - Danger

Hazard statement Code(s):

H314 - Causes severe skin burns and eye damage.

Supplemental Hazard statement Code(s):

EUH071 - Corrosive to the respiratory tract.

Precautionary statements:



**Prevention**

P260 - Do not breathe vapours/spray.

P280 - Wear protective gloves/clothing and eye/face protection

**Response**

P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or 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.

**Contains:**

L-(+)-tartaric acid, L-Malic acid, L-Lactic acid

Information concerning the components: L(+) tartaric acid 14,4%, L-malic acid 14,3%, lactic acid 10,2%, water q.s. to 100.

Food use, oenological use. Not intended for the final consumer. In accordance with current regulations on the specific matter.

Only for industrial use.

**2.3. Other hazards**

Based on the available data, no PBT or vPvB substances are present in accordance with Regulation (EC) 1907/2006, annex XIII

Based on available data, there are no substances that interfere with the Endocrine System in accordance with Regulation (EU) 2017/2100

The use of this chemical agent implies the obligation of the "risk assessment" by the employer according to the provisions of Legislative Decree April 9, 2008 no. 81 and subsequent amendments. If the results of the risk assessment demonstrate that, in relation to the type, quantity, methods and frequency of exposure, there is only a low risk for the safety and irrelevant for the health of the workers and that the measures referred to in paragraph 1 of Legislative Decree April 9, 2008 no. 81 are sufficient to reduce the risk, the provisions of articles 225, 226, 229, 230 of the same Legislative Decree do not apply

Do not ingest. Keep out of reach of children.

**SECTION 3. Composition/information on ingredients**

**3.1 Substances**

Irrilevant

**3.2 Mixtures**

Substance	Concentration[ w/w]	Classification	Index	CAS	EINECS	REACH
L-(+)-tartaric acid	>= 10 < 25%	Eye Dam. 1, H318		87-69-4	201-766-0	01-2119537 204-47-xxxx
L-Malic acid	>= 10 < 25%	Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335		97-67-6	202-601-5	

Substance	Concentration[ w/w]	Classification	Index	CAS	EINECS	REACH
L-lactic acid	>= 10 < 25%	EUH071; Skin Corr. 1C, H314; Eye Dam. 1, H318	607-743-00-5	79-33-4	201-196-2	01-2119474 164-39-XXX X

## SECTION 4. First aid measures

### 4.1. Description of first aid measures

#### Inhalation:

Ventilate the area. Move immediately the contaminated patient from the area and keep him at rest in a well ventilated area. If you feel unwell seek medical advice.

#### Direct contact with skin (of the pure product):

Take off immediately contaminated clothing.  
In case of contact with skin, wash immediately with water.  
Immediately consult a physician.

#### Direct contact with eyes (of the pure product):

Wash immediately and thoroughly with running water, keeping eyelids open for at least 10 minutes, then protect your eyes with a dry sterile gauze. Seek medical advice immediately  
Do not use eye drops or ointments of any kind before the examination or advice from an oculist.

#### Ingestion:

Rinse mouth immediately.  
Absolutely do not induce vomiting or emesis. Seek medical advice immediately.

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

No data available.

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

In case of accidental contact or feeling unwell, immediately go to a doctor or the emergency room and show this safety data sheet. Symptomatic treatment

## SECTION 5. Firefighting measures

### 5.1. Extinguishing media

#### Suggested extinguishing media:

Water spray, CO2, foam, dry chemical, depending on the materials involved in the fire.

#### Extinguishing media to avoid:

Water jets. Use water jets only to cool the surfaces of the containers exposed to fire.

### 5.2. Special hazards arising from the substance or mixture

No data available.

### **5.3. Advice for firefighters**

Use protection for the breathing apparatus  
Safety helmet and full protective clothing.  
The water spray can be used to protect the people involved in the extinction.  
You may also use self-contained breathing apparatus, especially when working in confined and poorly ventilated areas.  
Keep containers cool with water spray

## **SECTION 6. Accidental release measures**

### **6.1. Personal precautions, protective equipment and emergency procedures**

6.1.1 For non-emergency personnel:  
Leave the area surrounding the spill or release. Do not smoke  
Wear mask, gloves and protective clothing.

6.1.2 For emergency responders:  
Eliminate all unguarded flames and possible sources of ignition. No smoking.  
Provide a sufficient ventilation.  
Evacuate the danger area and, in case, consult an expert.

### **6.2. Environmental precautions**

Contain spills with earth or sand.  
If the product has entered a watercourse, sewers or has contaminated soil or vegetation, notify the authorities.  
Dispose of the waste material in compliance with the regulations

### **6.3. Methods and material for containment and cleaning up**

6.3.1 Containment:  
Rapidly recover the product, wear a mask and protective clothing (for specifications refer to section 8.2. SDS)  
Recover the product for reuse, if possible, or for removal. Possibly absorb it with inert material or suck it.  
Prevent it from entering the sewer system.

6.3.2 Cleaning up:  
After wiping up, wash with water the area and materials involved

6.3.3 Other information:  
None in particular.

### **6.4. Reference to other sections**

Refer to paragraphs 8 and 13 for more information

## **SECTION 7. Handling and storage**

### **7.1. Precautions for safe handling**

Avoid contact and inhalation of vapors  
Wear protective gloves/clothing and eye/face protection  
Handle the product after consulting all other sections of this safety data sheet.  
At work do not eat or drink.  
See also paragraph 8 below.

**7.2. Conditions for safe storage, including any incompatibilities**

Keep in original container closed tightly. Do not store in open or unlabelled containers.  
Keep containers upright and safe by avoiding the possibility of falls or collisions.  
Store in a cool and dry place, away from heat sources and direct exposure to sunlight.

**7.3. Specific end use(s)**

Manufacture of food products:  
Handle with care.  
Store in a clean, dry, ventilated area away from heat and direct sunlight.  
Keep container tightly closed.

**SECTION 8. Exposure controls/personal protection**

**8.1. Control parameters**

=====  
Related to contained substances:  
L-(+)-tartaric acid:

Limit value - Eight hours  
(ppm)/(mg/m<sup>3</sup>)  
Germany (AGS): x/2(1)  
Germany (DFG): x/2(1)  
Switzerland: x/2(1)

Limit value - Short term  
(ppm)/(mg/m<sup>3</sup>)

Germany (AGS): x/4(1)(2)  
Germany (DFG): x/4(1)(2)  
Switzerland: x/4(1)(2)

**Remarks**

Germany (AGS): (1) Inhalable fraction (2) 15 minutes average value  
Germany (DFG): 1) Inhalable fraction (2) 15 minutes average value  
Switzerland: 1) Inhalable fraction (2) 15 minutes average value

- Substance: L-(+)-tartaric acid  
DNEL

Systemic effects Long term Workers inhalation = 5,2 (mg/m<sup>3</sup>)  
Systemic effects Long term Workers dermal = 2,9 (mg/kg bw/day)  
Systemic effects Long term Consumers inhalation = 1,3 (mg/m<sup>3</sup>)  
Systemic effects Long term Consumers dermal = 1,5 (mg/kg bw/day)  
Systemic effects Long term Consumers oral = 8,1 (mg/kg bw/day)

**8.2. Exposure controls**

Appropriate engineering controls:  
Manufacture of food products:



No specific monitoring foreseen (act according to good practice and specific rules for the type of risk associated)

8.2.2 Individual protection measures:

(a) Eye / face protection

When handling the pure product use safety glasses (EN 166).

(b) Skin protection

(i) Hand protection

When handling the pure product use chemical resistant protective gloves (EN 374-1/EN374-2/EN374-3)

(ii) Other

When handling the pure product, wear full protective clothing (generic workwear / antacid, safety shoes S3-EN ISO 20345) or other protective equipment, according to the instructions of the employer

(c) Respiratory protection

During manual operations in case of insufficient ventilation, use mask with filters for gases and vapors

Organic - Brown, class 3, A or AX (UNI EN 405) unless otherwise specified by the employer and/or by assessments of environmental hygiene investigations

(d) Thermal hazards

No hazard to report

Environmental exposure controls:

Use according to good working practices, avoiding dispersal in the environment.

**SECTION 9. Physical and chemical properties**

**9.1. Information on basic physical and chemical properties**

Physical and chemical properties	Value	Determination method
Physical state	Clear liquid	
Colour	Colorless	
Odour	not determined as considered not relevant for the characterization of the product	
Odour threshold	not determined as considered not relevant for the characterization of the product	
Melting point/freezing point	not determined as considered not relevant for the characterization of the product	
Boiling point or initial boiling point and boiling range	not determined as considered not relevant for the characterization of the product	
Flammability	not determined as considered not relevant for the characterization of the product	
Lower and upper explosion limit	not determined as considered not relevant for the characterization of the product	
Flash point	not determined as considered not relevant for the characterization of the product	ASTM D92
Auto-ignition temperature	not determined as considered not relevant for the characterization of the product	
Decomposition temperature	not determined as considered not relevant for the characterization of the product	
pH	<2 (t.q.)	
Kinematic viscosity	not determined as considered not relevant for the characterization of the product	
Solubility	in water	

Physical and chemical properties	Value	Determination method
Water solubility	miscible in all proportions	
Partition coefficient n-octanol/water (log value)	not determined as considered not relevant for the characterization of the product	
Vapour pressure	not determined as considered not relevant for the characterization of the product	
Density and/or relative density	1.15 ± 0.05 (20°C)	
Relative vapour density	not determined as considered not relevant for the characterization of the product	
Particle characteristics	not determined as considered not relevant for the characterization of the product	

## 9.2. Other information

### 9.2.1 Information with regard to physical hazard classes

Irrilevant

### 9.2.2 Other safety characteristics

Irrilevant

## SECTION 10. Stability and reactivity

### 10.1. Reactivity

Acid

### 10.2. Chemical stability

No hazardous reaction when handled and stored according to provisions.

### 10.3. Possibility of hazardous reactions

There are no hazardous reactions

### 10.4. Conditions to avoid

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Related to contained substances:

L-(+)-tartaric acid:

None

L-Malic acid:

Avoid exposing the product to high temperatures. Avoid moisture.



### 10.5. Incompatible materials

Strong bases, oxidizing and reducing agents, alkali metals.

### 10.6. Hazardous decomposition products

Does not decompose when used for intended uses.

## SECTION 11. Toxicological information

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

(a) acute toxicity: L-(+)-tartaric acid: Ingestion - LD50 rat (mg / kg / 24h bw):> 2000

Skin contact - LC50 rat / rabbit (mg / kg / 24h bw):> 2000

Inhalation - LD50 rat (mg / l / 4h): nd

L-Malic acid: Ingestion - LD50 rat (mg / kg / 24h bw): not available

Skin contact - LC50 rat / rabbit (mg / kg / 24h bw): not available

Inhalation - LD50 rat (mg / l / 4h): not available

L-lactic acid: Ingestion-rat LD50 (mg/kg/24h bw): 3543

Skin contact-LC50 rat/coniglio (mg/kg/bw 24h bw): > 2000

Inhalation-rat LD50 (mg/l/4h): > 7.94

(b) skin corrosion/irritation: Corrosive product: causes severe skin burns and eye damage.

L-(+)-tartaric acid: Not corrosive

L-lactic acid: Corrosive

L-(+)-tartaric acid: Not Irritant in vivo test OECD 404: acute skin irritation / corrosion. The study can be classified as Klimisch code 1: unrestricted reliability. The results showed that no toxic effects were found and two other in vitro studies also support this finding. Hence the irritative effect of tartaric acid can be concluded as non-irritating.

L-lactic acid: OECD 404, in vivo, solution Rabbits (88%) Result: irritant

(c) serious eye damage/irritation: Corrosive product: causes severe skin burns and eye damage. - If brought into contact with eyes, the product causes serious damages to eyes, such as an opaque cornea or injury to iris.

L-(+)-tartaric acid: Corrosive in vitro test OECD 437: This study is considered a key study as it can be classified as Klimisch code 1: unrestricted reliability. Therefore the test result showed that tartaric acid is highly irritating.

L-lactic acid: Causes serious eye damage

L-(+)-tartaric acid: Irritant in vitro test OECD 437: This study is considered a key study as it can be classified as Klimisch Code 1: Unrestricted Reliability Therefore the test result showed that tartaric acid is highly irritating.

L-lactic acid: CEET, Ex vivo, solution (88%) Result: severe eye irritation

(d) respiratory or skin sensitisation: L-(+)-tartaric acid: Not sensitizing

L-lactic acid: Non-sensitizing

(e) germ cell mutagenicity: L-(+)-tartaric acid: Not mutagenic

L-lactic acid: Non-mutagenic

(f) carcinogenicity: L-(+)-tartaric acid: Not available

L-lactic acid: Non-carcinogenic

(g) reproductive toxicity: L-(+)-tartaric acid: Non toxic

L-lactic acid: Non-toxic for reproduction

(h) specific target organ toxicity (STOT) single exposure: L-(+)-tartaric acid: Non toxic

L-lactic acid: Not available

(i) specific target organ toxicity (STOT) repeated exposure: L-(+)-tartaric acid: Non toxic

L-lactic acid: Not available

(j) aspiration hazard: L-(+)-tartaric acid: Non toxic

L-lactic acid: Not available

### 11.2. Information on other hazards

No data available.

#### 11.2.1. Endocrine disrupting properties

Based on available data, there are no substances that interfere with the Endocrine System in accordance with Regulation (EU) 2017/2100

## SECTION 12. Ecological information

### 12.1. Toxicity

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Related to contained substances:

L-(+)-tartaric acid:

Acute toxicity - fish LC50 (mg/l/96h): >100  
Acute toxicity - crustaceans EC50 (mg/l/48h): 93.3  
Acute toxicity algae ErC50 (mg/l/72-96h): 51.4  
Chronic toxicity - fish NOEC (mg/l): na  
Chronic toxicity - crustaceans NOEC (mg/l): na  
Chronic algae NOEC (mg/l): 3.125  
Acute toxicity M-factor = 1  
Chronic toxicity M-factor = 1

L-Malic acid:

Acute toxicity - fish LC50 (mg / l / 96h): not available  
Acute toxicity - crustaceans EC50 (mg / l / 48h): not available  
Acute toxicity algae ErC50 (mg / l / 72-96h): not available  
Chronic toxicity - fish NOEC (mg / l): not available  
Chronic toxicity - shellfish NOEC (mg / l): not available  
Chronic toxicity algae NOEC (mg / l): not available  
Chronic toxicity M-factor = 1

L-lactic acid:

Acute toxicity - fish (*Lepomis macrochirus*) LC50 (mg / l / 96h): 130  
Acute toxicity - crustaceans (*Daphnia magna*) EC50 (mg / l / 48h): 130  
Acute toxicity algae ErC50 (*Pseudokirchnerella subcapitata*) (mg / l / 72 ): ~ 3500  
Chronic toxicity algae NOEC (*Pseudokirchnerella subcapitata*) (mg / l / 72): 1900  
Acute toxicity M-factor = 1  
Chronic toxicity M-factor = 1

Use according to good working practices and avoid to disperse the product into the environment.

### 12.2. Persistence and degradability

=====

Related to contained substances:

L-(+)-tartaric acid:

rapidly biodegradable

L-Malic acid:

Unavailable

L-lactic acid:  
Easily biodegradable (100%)

### 12.3. Bioaccumulative potential

=====  
Related to contained substances:

L-(+)-tartaric acid:  
Tartaric acid is an organic acid naturally present in numerous plants and particularly in grapes, abundant both in its free form and in the form of salt. No bioaccumulation data are available on relevant aquatic species. However, with a measured octanol/water partition coefficient value  $\log K_{ow} < 3$ , the substance is not expected to bioaccumulate.

L-Malic acid:  
Not bioaccumulative

L-lactic acid:  
Non bioaccumulative Log Pow: -0.72 - -0.54 (20 ° C)

### 12.4. Mobility in soil

=====  
Related to contained substances:  
L-(+)-tartaric acid:  
Not determined as rapidly biodegradable

L-Malic acid:  
Unavailable

L-lactic acid:  
Weak adsorption

### 12.5. Results of PBT and vPvB assessment

Based on the available data, no PBT or vPvB substances are present in accordance with Regulation (EC) 1907/2006, annex XIII

### 12.6. Endocrine disrupting properties

Based on available data, there are no substances that interfere with the Endocrine System in accordance with Regulation (EU) 2017/2100

### 12.7. Other adverse effects

No adverse effects

### 13.1. Waste treatment methods

Do not reuse empty containers. Dispose of them in accordance with the regulations in force. Any remaining product should be disposed of according to applicable regulations by addressing to authorized companies.  
Recover if possible. Operate according to local or national regulations

## SECTION 14. Transport information

### 14.1. UN number or ID number

ADR/RID/IMDG/ICAO-IATA: 3265



If subject to the following characteristics is ADR exempt:

Combination packagings: per inner packaging 1 L per package 30 kg

Inner packaging placed in shrink-wrapped or stretch-wrapped trays: per inner packaging 1 L per package 20 kg

### 14.2. UN proper shipping name

ADR/RID/IMDG: LIQUIDO ORGANICO CORROSIVO, ACIDO, N.A.S. (Acido tartarico, Acido malico e Acido lattico in miscela)

ADR/RID/IMDG: CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.(Tartaric acid, Malic acid and Lactic acid in mixture)

ICAO-IATA: CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.(Tartaric acid, Malic acid and Lactic acid in mixture)

### 14.3. Transport hazard class(es)

ADR/RID/IMDG/ICAO-IATA: Class : 8

ADR/RID/IMDG/ICAO-IATA: Label : 8

ADR: Tunnel restriction code : E

ADR/RID/IMDG/ICAO-IATA: Limited quantities : 1 L

IMDG - EmS : F-A, S-B

### 14.4. Packing group

ADR/RID/IMDG/ICAO-IATA: II

### 14.5. Environmental hazards

ADR/RID/ICAO-IATA: Product is not environmentally hazardous

IMDG: Marine polluting agent : No

### 14.6. Special precautions for user

The transport must be carried out by authorized vehicles for the transport of dangerous goods in accordance with the requirements of the applicable Edition of the agreement A.D.R. and national provisions. The transport must be carried out in the original packaging and in packages that are made from materials resistant to content and not likely to generate with this dangerous reactions. The process of loading and unloading of dangerous goods have received adequate training on the risks presented by prepared and on possible procedures to be taken in the event of emergency situations

#### **14.7. Maritime transport in bulk according to IMO instruments**

Transport in bulk is not foreseen

### **SECTION 15. Regulatory information**

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

Restrictions relating to the product or the substances contained (Annex XVII EC Reg. 1907/2006): not applicable  
Substances in Candidate list (art. 59 EC Reg. 1907/2006): the product does not contain SVHC in percentage = a 0.1 %.

Regulation (EU) 1169/2011: see point 2.2

Regulation (EU) 1308/2013; see point 2.2

Regulation (EC) 1333/2008; see point 2.2

Reg. (EU) No 1357/2014 - waste: HP8 - Corrosive

Seveso III class (Dir 2012/18/EU): n.a.

#### **15.2. Chemical safety assessment**

No chemical safety assessment was carried out by the supplier

### **SECTION 16. Other information**

#### **16.1. Other information**

Points modified compared to previous release: 2.1. Classification of the substance or mixture 4.3 Indication of any immediate medical attention and special treatment needed 14.1. UN number or ID number, 14.2. UN proper shipping name, 14.3. Transport hazard class(es), 14.4. Packing group, 14.5. Environmental hazards, 14.6. Special precautions for user, 14.7. Maritime transport in bulk according to IMO instruments

Description of hazard statements set out in paragraph 3

H318 = Causes serious eye damage.

H315 = Causes skin irritation.

H319 = Causes serious eye irritation.

H335 = May cause respiratory irritation.

H314 = Causes severe skin burns and eye damage.

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Classification according to Regulation (EC) Nr. 1272/2008

H314 - Causes severe skin burns and eye damage. Classification procedure: similar mixture - experimental data

H318 - Causes serious eye damage. Classification procedure: similar mixture - experimental data

Main normative references:

Reg. (CE) n. 1907 del 18/12/06 REACH (Registration, Evaluation and Authorisation of CHemicals) et seq.

Reg. (CE) 1272/2008 CLP (Classification Labelling and Packaging) et seq.

Directive 2012/18/EU (on the control of major-accident hazards involving dangerous substances) et seq.

Training required: This document must be submitted to the employer to determine the possible need for appropriate training for workers to ensure protection of human health and the environment.

n.a.: not applicable

n.d.: not available

ADR: Accord européen relative au transport International des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

ATE: Acute Toxicity Estimat

BFC: BioconCentration Factor

BOD: Biochemical Oxigen Demand

CAS: Chemical Abstract Service number

CAP: Centre AntiPoison

CE/EC number EINECS (European Inventory of existing Commercial Substances) e ELINCS (European List of notified Chemical Substances)

CL50/LC50: Lethal Concentration 50

DL50/LD50: Lethal Dose 50

COD: Chemical Oxygen Demand

DNEL: Derived No Effect Level

EC50: half maximal Effective Concentration

ERC: Enviroment Release Classes

EU/UE: European Union

IATA: International Air Transport Association

ICAO: International Civil Aviation Organization

IMDG: International Maritime Dangerous Goods code

Kow: Octanol water partition coefficient

NOEC: No Observed Effect Concentration

OEL: Occupational Exposure Limit

PBT: Persistent Bioaccumulative and Toxic

PC: Product Categories

PNEC: Predicted No Effect Concentration

PROC: Process Categories

RID: Règlement concernant le transport International ferroviaire des marchandises dangereuses (Regulations concerning International rail transport of dangerous goods)

STOT: Target Organ Systemic Toxicity

STOT (RE): Repeated Exposure

STOT (SE): Single Exposure

STP: Sewage Treatment Plants

SU: Sector of Use

SVCH: Substance of Very High Concern

TLV: Threshold Limit Value

vPvB: Very Persistent Very Bioaccumulative

#### References and Sources:

- ECHA Registered Substances:

<https://echa.europa.eu/web/guest/information-on-chemicals/registered-substances>

- SDS raw material supplier

- GESTIS International Limit Value: <http://limitvalue.ifa.dguv.de>

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\*\*\* this tab annuls and replaces any previous edition. (IIXX)

Changes to the previous edition: sec 2, sec 14