TENZI Sp. z o.o.
SKARBIMIERZYCE 18
72-002 DOŁUJE

CAR MAX EKO

Material Safety Data Sheet

Creation Date: 15.02.2010
Revision date: 20.07.2010

1. IDENTYFICATION OF THE PREPARATION AND OF THE COMPANY

1.1 Identification of the preparation: CAR MAX EKO
1.2 Use of the preparation: Ecological preparation for pressure washing cars, trucks, buses.
1.3 Company identification: TENZI Sp. z o.o., 72-002 Dołuje, Skarbimierzyce 18, e-mail: tenzi@tenzi.pl, www.tenzi.pl tel. +48 91 31 19 777, fax +48 91 31 19 779
1.4 Emergency Telephone: +48 91 31 19 777 (Mon-Fr. 8-16); or 998

2. HAZARDS IDENTIFICATION

Product classified as hazardous in accordance to the applicable regulations (in accordance to Ordinance of the Minister of Health from 2nd September 2003 on criteria and classification of chemical substances and chemical preparations (Journal of Law No 171, item 1665 and 1666)).

Xi – Irritant
R36/38 – Irritating to eyes and skin

3. COMPOSITION / INFORMATION ON INGREDIENTS

Composition (according to: 648/2004/WE): <5% cationic, non-ionic, anionic and amphoteric surfactants, 5÷15% EDTA (sodium salt); remaining components – sodium hydroxide, auxiliary components

Hazardous ingredients	Concentration [% weight]	CAS Number	CE Number	Index Number	Caution signs	R sign
Sodium hydroxide (100%)	< 2	1310-73-2	215-185-5	011-002-00-6	C	R35
EDTA (sodium salt)	5÷15	64-02-8	200-573-9	607-428-00-2	Xn, Xi	R22, R41
Anionic surfactants	< 5	68585-34-2	500-223-8	---	Xi	R38, R41
Amphoteric surfactants	5÷15	61789-40-0	263-058-8	---	Xi	R36
Cationic surfactants	< 5	---	polymer	---	Xn, Xi, N	R22, R38-41, R50

The full texts of R symbols are in section 16.

4. FIRST AID MEASURES

INHALATION – In case of inhalation poisoning symptoms (cough, shortness of breath, giddiness) move to fresh air. Ensure the calm in half-lying or half-sitting position, exercise can cause emphysema. Protect against heat loss. Seek medical advice.
SKIN CONTACT – In case of clothes poisoning, immediately take them off and rinse the skin with plenty of water (current water is the best). In case of the skin irritation or burns consult a doctor.
EYE CONTACT – In case of contact with eyes, rinse them immediately with plenty of cold water (at least during 15 minutes) keep the eyes open, seek medical advice.
INGESTION – In case of ingestion, do not cause vomiting. Give plenty of water to drink. Do not give the neutralizing agents. Immediately consult a doctor, show label if possible

5. FIRE-FIGHTING MEASURES

NON-FLAMMABLE

SUITABLE EXTINGUISHING MEDIA: Appropriate to the environment surrounding the product.
EXTINGUISHING MEDIA WHICH SHALL NOT BE USED FOR SAFETY REASONS: All known extinguishing media can be used.
SPECIAL EXPOSURE HAZARDS: Non-flammable preparation.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS: Use self-contained breathing apparatus and chemically protective clothing.
FURTHER INFORMATION: In case of fire inform all persons nearby on fire, evacuate third persons from danger area, call the call fire brigade. If possible remove the containers away from the influence of fire and high temperature. If impossible cool the container by stream of water. The after burning residues should be removed.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: protective acid resistant clothing, self-contained breathing apparatus; protective acid resistant gloves, protective glasses.
Avoid direct skin and eyes contact; ensure suitable ventilation.
ENVIRONMENTAL PRECAUTIONS AND METHODS FOR CLEANING UP: In case of unintended release substance into environment inform on emergency and remove the source of leak. Prevent from entering sewers. If it is possible eliminate the leak (close liquid flow, make tight, damaged container put into protect leak proof wrapping) For huge leak, absorb the place where it can be accumulated, pump out if possible. Small quantity of leak absorb by inflammable absorbing material (sand, solid, sawdust, fines limestone), and next place in the appropriate waste container- pass to utilization. Polluted surface wash out.

7. HANDLING AND STORAGE

7.1. HANDLING

Handle with preparation very carefully. Require use the appropriate individual protection equipment – see point 8.
Mixing only with water. Under no circumstances do not mix with other chemical substances.
Person with skin or respiratory system allergy should not have contact with this substances.
Avoid risks – before usage read operating instruction carefully.
After usage close tightly, keep away from unauthorized persons.
During operation with substances ensure good air-ventilation room in order to avoid inhalation poisoning.

7.2. STORAGE

Keep only in original container made from plastic (polyethylene with the high quality of HDPE). Do not pour to replaceable containers. Keeping the container in dry, tightly closed rooms with temperature + 5 ÷ 30º C with the good ventilation, rooms should have easy clean floor alkali resistant. Keep away from sun and heat. Keep away from ignition and fire sources.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. EXPOSURE LIMIT VALUES

Control parameters of concentration (in acc. to Ordinance of Minister of Labour and Social Policy from 29th of November 2002, (Journal of Law, No 217, item 1833 with further amendments – Journal of Law No 212, item 1796, from 10th of October 2005)):
Sodium hydroxide (data for the concentrated substance):
NDS: 0,5 mg/m^3
NDSCh: 1 mg/m^3
EDTA (sodium salt) (data for the concentrated substance):
NDS, NDSCh: - no data available
Anionic surfactants (data for the concentrated substance):

NDS, NDSCh: - no data available
Amphoteric surfactant (data for the concentrated substance):
NDS, NDSCh: - no data available
Cationic surfactants (data for the concentrated substance):
NDS, NDSCh: - no data available

Recommendations to the procedure of monitoring hazardous substances in air – method of measurements:
- Ordinance of the Minister of Health from 20th April 2005 on test and measurements of the factors harmful for work environment (Journal of Law No 73, item 645)
- PN-89/Z-01001/06 – Air protection against pollution.. - names, definitions and units. Terminology concerning test of air pollution around workplaces.
- PN-89/Z-04008/07 – Air protection against pollution. Samples. The principles of getting samples of air around workplace and result analysis.
- PN-EN-689:2002 – Air around workplace- Guidelines of assessment of inhalation exposure on chemical substances by comparison to acceptable concentration rates and measurement strategy.
Notice: When the concentration of substance is known, personal protection should be chosen including this concentration around workplace, time of exposure and operations performed by worker. In emergency, if the concentration around workplace is unknown, personal protection of high protection class must be used.

8.2. EXPOSURE CONTROLS

Used personal protection should comply with the requirements of Ordinance of the Minister of Economy from 21st December 2005 on essential requirements of personal protection measures (Journal of Law No. 259, item 2173):
RESPIRATORY PROTECTION: In case of insufficient ventilation, wear suitable respiratory equipment - Gas-mask with the vapor absorber.
HAND PROTECTION: Protective gloves.
EYE PROTECTION: Protective glasses.
SKIN PROTECTION: Protective drill clothing, flannel shirt, protective apron, rubber protective shoes.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. GENERAL INFORMATION
FORM - liquid
ODOUR - characteristic

9.2. IMPORTANT HEALTH, SAFETY AND ENVIRONMENTAL INFORMATION
pH – 14 ± 1
TEMPERATURES
a) BOILING POINT – no data available
b) MELTING POINT – no data available
c) FLASH POINT - no data available
d) AUTOIGINITION – no data available
FLAMABILITY – no data available
EXPLOSIVE PROPERTIES - no data available
OXIDATIVE PROPERTIES – no data available
VAPOR PRESSURE – no data available
RELATIVE DENSITY – 1,070 ± 0,020 g/cm^3
DISSOLUBILITY
a) WATER – full
b) ORGANIC SOLVENT – no data available
PARTITION COEEFICIENT n-octanol /water – no data available
VISCOSITY – no data available
VAPOUR DENSITY – no data available
VAPORIZATION RATE – no data available

9.3. OTHER INFORMATION
INDEX OF REFRACTION – 21,2 % Brix* ± 5%
*- presented as weight % of sucrose content in water solution.

10. STABILITY AND REACTIVITY

Stabile under normal storing conditions (see: Point 7).

10.1.CONDITIONS TO AVOID: strong heated rooms without ventilation. protect from long term exposure on light.
10.2.MATERIALS TO AVOID: acids, strong oxidizers.
10.3.HAZARDOUS DECOMPOSITION PRODUCTS: lack

11. TOXICOLOGICAL INFORMATION

EXPOSURE
-RESPIRATORY: irritation effect, can cause irritation of upper respiratory tract, cough, difficulties in breathing, sore throat.
-INGESTION: Irritating effect, can cause oral cavity, throat, gullet burn, nausea and vomiting, shock.
-SKIN CONTACT: Irritating.
-EYES CONTACT: Irritating.

DETAILS OF PARTICULAR COMPONENTS (IN ACCORDANCE TO THE PARTICULAR SUBSTANCE DATA SHEET):
Sodium hydroxide (data for the concentrated substance):
Local reaction:
- inhalation – high irritating, it can cause serious damage of upper respiratory tract, burns, possibility of chemical pneumia and lungs swelling. Symptoms – sneezing, exudation from nose, cough, sore throat and even coma.
- Consumption – caustic, causes seriously burn of mouth cavity, throat, stomach and serious damage of food system tissues (risk of perphoration) – can come to death. Symptoms – huge ache, vomiting, diarrhea, blood pressure fall, symptoms of damage can be even few days after contact.
- contact with skin – caustic, possibility of serious burn and injuries, deep ulceration, skin is blue or very pale. Injuries made by burns heal very slow and cause serious changes on the skin.
- contact with eyes – caustic, possibility of serious burn, damage of cornea and eyes (red mark, huge pain) which can lead to irreparable deterioration of sight and even lost sight.
LDL0 500 mg/kg (rabbit, oral).
EDTA (sodium salt) (data for the concentrated substance):
LD50 > 2000 mg/kg (rat, orally)
Skin: substance is not irritating (rabbit)
Mucous membrane: substance is irritating (rabbit)
Non allergic.
Anionic surfactants (data for the concentrated substance):
LD50 (rat, orally): > 2000 mg/kg
With long-time contact with skin this product causes significant irritation. It can be reason of serious eyes harm (even irreparable).
If you swallow it, substance can cause mouth cavity irritation and upper food canal irritation.
Amphoteric surfactants (data for the concentrated substance):
Irritating to eyes.
LD50 > 1500 mg/kg (orally)
LD50 > 600 mg/kg (skin).
Cationic surfactants (data for the concentrated substance):
- inhalation: inhalation of aerosols may cause irritation to mucous membranes. thermal decomposition can lead to release of irritating gases and vapours.
- skin: may cause skin irritation and/or dermatitis
- eyes: may cause irreversible eye damage
- ingestion: harmful if swallowed. May cause irritation of the mucous membranes.
LD50 300-2000 mg/kg (rat, orally)

12. ECOLOGICAL INFORMATION

Surface-active agents contained in preparation comply with the biodegradability criteria pursuant to Ordinance EC 648/2004 on detergents.

ECOTOXITY EFFECTS (in acc. MSDS):
Sodium hydroxide (data for the concentrated substance):
Product is not biodegradable.
Ecotoxicity:
- for fishes: LC50 45,5 mg/l/96h (Onchorhynchus mykiss), LC50 99 mg/l/48h (Limnea macrochirus)
- for daphne: EU50 76 mg/l/24h (Daphnia magna)
Biological effect: toxicity for fishes and plankton. Damaging effect relay on pH value.
Death of fishes is possible. It does not cause biological shortage of oxygene.
It is possibility of neutralizein sewage treatment plant.
You have to protect from penetrate this product to ground water, ponds and sewage system.
EDTA (sodium salt) (data for the concentrated substance):
Ecotoxicity:
- for fishes: LC50 > 500 mg/l/96h (Leuciscus idus).
- for invertebrate: EC50 > 100 mg/l/48h.
- for bacteriums: > 100 mg/l.
Chemical demand for oxygen (COD): 265 mg/g.
With correct inserting low concentration to biological sewage treatment plant you should not expect interferences in active decay process.
Worth of fission coefficient Log Pow shows, you should not expect culmination in organisms.
Product is not easily biodegradable.
Anionic surfactants (data for the concentrated substance):
Product is dissolving in water.
Surface-active agents contained in preparation comply with the biodegradability criteria pursuant to Ordinance EC 648/2004 on detergents
Biodegradation:75% BOD/COD after 28 days test of closed bottle EEC C.4.E, OECD 301 D.
You do not admit on penetrate to ground water and surface water.
Amphoteric surfactants (data for the concentrated substance):
Readily biodegradable
logPow: 1,28 – 3,63
BCF: 71
Cationic surfactants (data for the concentrated substance):
The product contains substance(s) considered very toxic to aquatic organisms. An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Readily biodegradable. >60% BOD, 28 days, Closed Bottle Test (OECD 301D)
Ecotoxicity:
- fish: LC50 10-100 mg/l/96h
- daphnia: EC50 0,11-1 mg/l/48h
- algae: EC50 1-10 mg/l/72h
No bioaccumulation is expected. The product is biodegradable and water soluble.

13. DISPOSAL CONSIDERATIONS

RESIDUES OR WASTES:
Do not mix the substance with other liquid wastes. Do not enter to the sewage. The product should be totally used pursuant to its recommendation, if impossible the product or residues must be disposed as special wastes.
Waste code and type: 06 02 04; 07 06 04; 16 03 05 – organic waste containing dangerous substances.
Code classification pursuant to the Ordinance of the Minister of Environment from 27th September 2001 on waste records (Journal of Law No 112, item 1206).

PACKAGING:
Polluted packaging should be totally empty. Empty container rinse with water several times, which should be disposed as preparation. Empty packaging can be stored in containers designated to the collecting the plastic or refer to company specialized in utilization.
Comply with the regulations from Act from 27th April 2001 on wastes (Journal of Law No 62, item 628) with further amendments.
Comply with the regulations from Act from 11th May 2001 on packaging and packaging waste (Journal of Law No 63, item 638) with further amendments.
Waste code and type: 15 01 02 - plastic packaging, 15 01 10 packaging containing residues of or contaminated by dangerous substances.

14. TRANSPORT INFORMATION

TRADE NAME: **CAR MAX EKO**

HAZARDOUS CLASS IN TRANSPORT IN ACCORDANCE TO ADR/RID: does not apply
NAME OF DANGEROUS MATERIAL: does not apply
PACKAGING GROUP: does not apply
UN CODE: does not apply
WARNING LABEL: does not apply

15. REGULATORY INFORMATION

LABELLING (according to Ordinance of the Minister of Health and Social Care from 2nd September 2003 on labeling of chemical substances and chemical preparations (Journal of Law No 173, item 1679) and Ordinance of the Minister of Health from 9th November 2004 changing the ordinance on labelling of chemical substances and chemical preparations (Journal of Law No 260, item 2595):

Marketing name: **CAR MAX EKO**

Warning signs:

IRRITATING

Signs indicating type of hazard:
R36/38 – Irritating to eyes and skin

Signs indicating conditions of safe usage:
S26 – In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S37/39 - Wear suitable gloves and eye/face protection.
S46 – If swallowed, seek medical advice immediately and show this container or label.
S2 – Keep out of the reach of children.

ONLY FOR PROFESSIONAL USE

This Material Substance Data Sheet was prepared on the basis on following regulations:
- Act from 11th January 2001 on chemical substances and chemical preparations (Journal of Law No 11, item 84) with further amendments.
- Ordinance of the Minister of Health from 28th September 2005 on hazardous substances record ant their classification and symbols (Journal of Law No 201, item 1674 and 1675).
- Ordinance of the Minister of Health from 3rd July 2002 on Material and Hazardous Substances Safety Data Sheet (Journal of Law No 140, item 1171) and Ordinance of the Minister of Health from 14th December 2004 changing the ordinance on Material and Hazardous Substances Safety Data Sheet (Journal of Law No 2, item 8).
- Ordinance of the Minister of Health from 2nd September 2003 on criteria and classification of chemical substances and chemical preparations (Journal of Law No 171, item 1665 and 166) and Ordinance of the Minister of Health from 29th October 2004 changing the ordinance on criteria and classification of chemical substances and chemical preparations (Journal of Law No 243, item 2440).
- Ordinance of the Minister of Health from 2nd September 2003 on labeling of chemical substances and chemical preparations (Journal of Law No 2003, No 173, item 1679) and Ordinance of the Minister of Health from 9th November 2004 changing the ordinance on labeling of chemical substances and chemical preparations (Journal of Law 2004, No 260, item 2595).
- Ordinance of the Minister of Health from 14th August 2002 on obligation of handing-over the Material Substance Data Sheets non classified as hazardous (Journal of Law No 142, item 1194).
- Ordinance of the Minister of Health from 17th January 2003 on information on hazardous substances which do not required handing-over the Material Substance Data Sheet (Journal of Law No 19, item 1701).
- Act from 26th June 1974, Labor Code (Journal of Law No 21, 1998r, item 94).
- Ordinance of the Minister of Economy and Labor from 5th July 2004 on limitation of the prohibition and production conditions, turnover and use of hazardous substances or substances containing their products (Journal of Law No 11, item

1762) and Ordinance of the Minister Economy and Labour from 21st February 2005 Journal of Law No 39, item 1796, from 4th July 2006. Journal Of Law 2006, No 127, item 887 , from 11th December 2006. Journal of Law 2006, No 239, item 1731, from 29th December 2006. Journal of Law 2007, No 1, item 1) changing the ordinance on limitation of the prohibition and production conditions, turnover and use of hazardous substances or substances containing their products.
- Directive (EC) no 648/2004 of European Parliament and Council from 31st March 2004 on detergents and Directive of European Commission (EC) No 907/2006 changing the directive (EC) no 648/2004 of European Parliament and Council on detergents in order to adjustment of its attachments III and VII.
- Directive (EC) no 1907/2006 of European Parliament and Council from 18th December 2006 on register, assessment and issue permissions and using the limitation of chemicals (REACH), establishing the European Chemicals Agency, changing the directive 1999/45/EC and annulling the directive (EEC) Council No 793/93 and directive of Commission 9EC) no 1488/94, as also Directive of Council 76/769/EEC and directive of Commission 91/155/EEC, 93/67/EEC, 93/105/EEC and 2002/21/EC.

16. OTHER INFORMATION

Aforementioned information are worked out on the basis of the current state of art and product as it is used. Data concerning this product are presented in order to comply with the security requirements and not to guarantee its special properties. In case when use conditions are not under producer's control, the responsibility for safety use lies on user.
The employer is obliged to inform all employees, who have a contact with this product, on hazardous and personal protection listed in this Material Substances Data Sheet.
This Material Safety Data Sheet is worked out on the basis of Materials Safety Data Sheets attached to the preparation composition by producers and on the basis of regulations on hazardous substances and chemical preparations.
The classification was made on the basis of maximum concentration of hazardous substances.

The full text of any R phrases referred to under headings 2 and 3 of the Safety Data Sheets:
C – Corrosive
Xi – Irritant
Xn – Harmful
N – Dangerous for the environment
R21/22 – Harmful in contact with skin and if swallowed
R22 – Harmful if swallowed
R35 – Causes severe burns
R38 – Irritating to skin
R41 – Risk of serious damage to eyes
R50 – Very toxic to aquatic organisms

Detail principles of use the product are on Technical Data Sheet on www.tenzi.pl

Trainings: Persons dealing with the hazardous substances marketing should be trained with regard to operating, and health and safety. Drivers should be trained and obtain proper certification in accordance to ADR regulations.

The product is submitted to **Inspector of Chemical Substances and Preparations.**

Date of expiry in normal conditions – 36 months from the production date.

Amendments to the last version:
- General update. Update on MSDS available on www.tenzi.pl

This Material Safety Data Sheet is uniform document containing 7 pages.

Made by: Monika Rzepkowska.

Skarbimierzyce 20.07.2010 r.