SAFETY DATA SHEET

In accordance with the Regulations (EC) No 1907/2006 - REACH. and (EC) No 1272/2008

Version: 1.0

Revision date: 12.02.2016. Preparation date: 12.02. 2016.

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Type of product:	Mixture
Market code:	**XiMoPac-Al001**
Order code	-

1.2. Appropriate definition of the use, resp. the contraindicative use of the mixture:

Aluminium catalyst – paraffin pellets.

1.2.1. Use descriptors of identified uses

Production of fine chemicals [SU9];

Laboratory chemicals [PC21]

1.2.2. Contraindicated uses

Use by private individuals

1.3. Data of supplier (of MSDS)

Name of manufacturer:	**XiMo Hungary Ltd.**
Address of manufacturer:	H-1031 Budapest, Záhony utca 7. Tel: +36 1 580-2203 e-mail: XimoInfo@ximo-inc.com
Name of person/company in charge:	**Generisk Ltd.** 1223 Budapest, Szabadkai u. 14. Tel: +36 1 362-2704 e-mail: iroda@generisk.hu

1.4. Emergency phone:

Health Toxicological Information Service:	**Egészségügyi Toxikológiai Tájékoztató Szolgálat** 1096 Budapest, Nagyvárad tér 2. Tel: +36 80 201-199 e-mail: ettsz@okbi.antsz.hu

2. HAZARDOUS INGRIDIENT/IDENTITY INFORMATION

2.1. Classification of substance or mixture Classification according to Regulation 1272/2008/EC

Skin Corr. 1B	**H314**	Skin burn/Skin irritation, Cat. 1B
Eye irritation 2	**H319**	Severe eye damage/eye irritation, Cat. 1.

See the complete wording of the hazard statements "H" in Section 16.

2.2. Labelling elements

According to 1272/2008/EC

Contains Triethylaluminium

Hazard pictogramme:

Warning**: HAZARD**

Warning phrases:	**H314**	Causes severe skin burns and eye damage
Prevention Precautionary statements	**P280**	Wear protective gloves/protective clothing/eye protection/face protection.
	P301+P330 +P331	IF SWALLOWED: Rinse mouth, Do NOT induce vomiting
	P303+P361 +P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
	P305+P351 +P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	P310	Immediately call a POISON CENTER or doctor/physician.
	P405	Store locked up

No further information

2.3. Other hazards

The product does not comply with the a vPvB criteria in Section XIII of Regulation 1907/2006/EC.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Not applicable.

3.2. The chemical codes of the ingredients based on Regulation 1272/2008/EC

Hazardous component	CAS-number	EU number	Weight %	Classification
Paraffin	64742-43-4	265-145-6	95%	-
Triethylaluminium	97-93-8	202-619-3	5%	Pyr. Liq. 1, H250 Water-react. 1, H260 Skin Corr.

Further hazardous substances do not exceed the safety threshold.

See the complete wording of the Hazard Statements "H" in Section 16.

4. FIRST AID MEASURES

4.1. Information on First Aid measures

Inhalation of hazardous substance:

Persons suffering from lack of oxygen should be moved to fresh air. Place in position in which breathing facilitated. Should this condition not improve, obtain medical attention.

Contact with skin:	Wash with plenty of water and soap. Remove all contaminated clothes immediately. Contaminated clothes must be washed before re-use. Seek immediate medical attention with a doctor or the HEALTH TOXICOLOGICAL SERVICE CENTRE.
Contact with eye:	For some minutes, gently flush with water. Other eye must be protected. If possible, contact lenses must be removed. Continue flushing. Should the eye irritation persist, seek immediate medical attention with a doctor or the HEALTH TOXICOLOGICAL SERVICE CENTRE.
If swallowed:	Mouth must be flushed. Do NOT induce vomiting. Seek immediate medical attention with a doctor or the HEALTH TOXICOLOGICAL SERVICE CENTRE.

4.2. The primary- acute and deferred – symptoms and effects

Inhalation:	Vapours may cause respiratory tract burns.
Contact with skin:	Severe burn damage.
Contact with eye:	Severe eye damage
If swallowed:	Burning sensation, nausea, vomiting.

4.3. Notification of the necessary immediate medical or special action

Apply symptom treatment. Provide the doctor immediately with the label or the Safety Data Sheet of the substance.

5. FIRE PROTECTION MEASURES

5.1. Extinguishing agent

Extinguishing agents to be applied: Water Fog, Foam, Dry Chemical, Carbon Dioxide. Fire-fighting foam

Extinguishing agents NOT to be applied: Gushing water

5.2. Special hazard deriving from the substance or mixture A

Fire hazard:	Not fire hazardous.
Explosion hazard:	The mixture is not explosion hazardous.
Reactability:	The mixture is stable under normal conditions.
General measures:	Keep away from heat, sparks, open fires and hot surfaces

Substances generated when burning: In the event of fire, carbon-monoxide, carbon-dioxide may be generated.

5.3. Recommendations for fire-fighters

Individual protection equipment	Wear standard fire-fighter costume (MSZ EN 469). Caution! Wear when extinguishing fire self-contained fire extinguisher

(SCBA, EN 133).

Other information:	Containers subject to fire or high temperatures must be cooled with water-jets, or, if possible, remove them from the zone subject to heat. Care should be made to ensure water used to extinguish fire is not made to any drainage.

6. ACCIDENTAL EXPOSURE MEASURES

6.1. Personal protection measures, individual safety equipment and emergency measures

Safety equipment in non emergency schemes:	Apply the safety equipment described in Section 8. Ensure appropriate ventilation. Avoid contact with skin, clothing and eyes. Do not inhale vapours. It can be used in well-ventilated areas. Ensure substance does not enter the drainage system. Contaminated clothing must be removed and must be washed before repeated use.
Emergency schemes:	In case of emergency, wear a respirator device described in Section 8, chemically resistant safety gloves, safety goggles and protective clothing.

Emergency schemes

6.2. Environmental measures

Other remarks:	Ensure substance does not enter into the ground, groundwater or surface waters. Should the environment be potentially or actually affected, Section 6.1. must be followed.

6.3. Methods and substances of isolation and contamination removal

Localisation:	Should substance be spilt on the ground, sweep it up
Cleaning:	Collect the spilt mixture. Spilt mixture is considered as hazardous as the mixture. The generated litter is regarded as the same hazard category as the product itself. The instructions of ADR-packaging complying within 1759 are recommended to be considered.
Other information	No other applicable information is available

6.4. References to other sections

Information regarding safe handling – Section 7.

Information regarding individual safety equipment - Section 8.

Information regarding disposal – Section 13

7. HANDLING AND STORAGE

7.1. Measures of safe handling

Rules regarding safe handling:

Prior to handling, become familiar with the substance-specific instructions.

While applying the mixture, adhere to the general work health regulations.

Use the decreed individual safety equipment

Work in an appropriately ventilated room.

While using the mixture, eating, drinking and smoking

are forbidden. .

Avoid eye contact.

Do not inhale substance.

At the site of work (laboratories), boardsigns should mark hazard related to the used substances in accordance with Directive 1992/58 EEC

The emergency shower as well as the emergency eye wash must be available.

Fire- and explosion protection regulations:

The mixture is not fire hazardous.

7.2. The requirements of safe storage and potential incompatibility

Storage regulations:

Containers should be kept tightly sealed and in original packaging. Store in a cool, dry, well-ventilated area. Store in horizontal position so as to avoid spilling.

Do not expose to direct sunlight.

Store in original packaging. Should the substance be placed in separate containers, apply packing that is resistant to the mixture.

Storage temperature [˚C]:

Store at temperatures below 50 ˚C

May not be stored:

with strong oxidizing agents, acids and alkalis, medicines, human or animal food

Packaging materials:

-

Inappropriate packaging materials:

There are no known incompatible packaging materials

Further information concerning storage requirements:

Avoid dropping and damaging container.

7.3. Final use

Final use: Laboratory chemicals [PC21]

8. EXPOSURE CONTROL / INDIVIDUAL PROTECTION

8.1. Control parameters

Ambient air quality limit values according to 25/2000. (IX. 30.) EüM-SzCsM

The mixture does not contain any components regulated by ambient air quality limit value.

8.2. Exposure control

Appropriate technical inspection:

During work activities, the substance must be handled with care. According to regulation 25/2000. (IX. 30.) EüM-SzCsM,the employer is obliged to reduce the extent of exposure to the lowest level – still maintaining the scientific and technical standards - in the case of hazardous substances regulated with limit values, a t which – according to our present knowledge, the substance is not hazardous to health.

Use in open-air or well-ventilated areas. For the appropriate exchange of air, apply artificial ventilation.

Individual protection:

Prior to use, read and become thoroughly familiar with all safety measures.

Wash your hands thoroughly in work breaks and after working hours Do not eat or drink while working. Smoking is forbidden. Avoid eye and skin contact. Do not swallow. Do not inhale vapour.

Immediately remove contaminated clothes. Contaminated clothes must be washed before use.

In the area of use, emergency shower and emergency eye wash must be available.

Materials fit for safety clothing:

See below materials in compliance with the relevant regulations

Hand protection:	Wear chemical resistant gloves (EN 374). The material of the safety gloves may not be permeable and must resist the chemical substance in question. When choosing the safety gloves, take into consideration the permeation rate, the diffusion capacity and the decomposition rate (e.g. nitrite).
Eye protection:	Wear appropriately sealed safety goggles. (EN 166).
Skin and body protection:	Laboratory outfit. While loading, wear a helmet. After getting in contact with the skin, wash the affected patch of skin immediately
Respiratory tract:	A filter mask is not needed at appropriate ventilation. Should appropriate ventilation not be available, vapour and gas filter masks must be worn that comply with category A of EN140 or equivalent. (Filtering capacity is defined by exposure estimation. Filter masks serve to avoid the remaining risks of short-term activities, when practically all other measures have been taken to reduce hazard. (e.g. local ventilation). The manufacturer's instructions regarding the filter must be adhered to.
Heat protection:	If the mixture is used appropriately, no such effect may occur.
Protection against environmental exposure:	During use, if necessary, the proportion of substance that has entered the air or waste water must be removed. Accidents may occur while handling, transporting or removing the substance. Consequently, the storage and transport requirements of the mixture must be selected accordingly.
Restrictions of users' exposure:	The restriction of users are defined by the user descriptors by REACH and the relevant labour safety requirements.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information related to basic physical and chemical properties

Physical state:	solid
Colour:	white
Odour:	odourless
Odour limit value:	not defined
pH (20 °C-on):	not defined
Melting point/Freezing point:	not defined
Boiling point:	not defined
Flash point:	200 °C
Evaporation rate:	not defined
Inflammability:	not applicable
Explosion limits [v/v%]:	not relevant
Vapour pressure [20 ˚C-on]:	not applicable
Vapour density:	not applicable
Relative vapour density:	not applicable
Density [20 °C-on]:	0,9 g/cm^3
Solubility in water:	at room temperature
Solubility:	not defined
Partition coefficient:	not defined
Self-ignition:	non pyrophoric
Decomposition temperature:	not defined
Viscosity [20 °C-on]:	3-10 mm^2/s
Explosion hazard:	Not explosion hazardous

Oxidising properties: no data available

solvent content: no data available

9.2. Other information

Other information	No further information of significance is available

10. STABILITY AND REACTABILITY

10.1. Reactability

Reactability:	Stable under normal conditions.

10.2. Chemical stability

Chemical stability: Stable under normal conditions.

10.3. The possibility of hazardous reactions

Hazardous reactions: Stable under normal conditions.

10.4. Conditions to be avoided

Conditions to be avoided: Keep away from moisture.

10.5. Incompatible substances:

Alcohols, strong oxidizing agents, strong acids and bases are incompatible with the substance**.**

Cannot be stored alongside medicine, human or animal food.

10.6. Hazardous decomposition products

Decompositon products: In the event of fire, carbon-monoxide, carbon-dioxide may be generated.

11. TOXICOLOGICAL DATA

11.1. Information related to toxicological effects

Acute toxicity:

Paraffin waxes (petroleum), claytreated (64742-43-4)	
LD50 swallowing, rats	> 5 mL/kg body mass
LD50 through skin, rats	> 2000 mg/kg body mass
Triethylaluminium (97-93-8)	
LD50 swallowing, rats	> 10 000 mg/kg body mass
LC50 inhalation, rats	> 5,09 mg/L

Skin corrosion/irritation: Causes severe burn damage

Eye damage/irritation: Causes severe eye damage

Respiratory or skin sensitisation: None.

Germ cell mutagenicity: None.

Carcenogenicity: None.

Reproduction toxicity : None.

Single exposure specific target organ toxicity: None.

Repeated exposure specific target organ toxicity: None.

Aspiration hazard: None.

Chronic toxicity:

The mixture is not classified.

12. ECOLOGICAL INFORMATION

12.1. Toxicity

Toxic to fish, daphnia and other aquatic creatures

Paraffin waxes (petroleum), claytreated (64742-43-4)	
LL50 (Pimephales promelas)	> 100 mg/L 96 hours
EL50 (Daphnia magna)	> 10 000 mg/L 48 hours
NOEL (Daphnia magna)	10 mg/L 21 days
Triethylaluminium (97-93-8)	
LC50 (Pimephales promelas)	35 mg/L 96 hours
NOEC (Pimephales promelas)	527,6 µg/L 7 days
LC50 (Ceriodaphnia dubia)	13,5 µg/L 48 hours
LOEC (Daphnia pulex)	< 0,05 mg/L 21 days

12.2. Persistence and decomposability

None.

12.3. Bioaccumulation capacity

12.4. The mixture has no bioaccumulation property.

12.5. Mobility in the ground

12.6. May not enter the ground, ground water or drainage.

12.7. The A PBT and vPvB - results

12.8. This mixture does not qualify as PBT or vPvB product according to REACH.

12.9. Other harmful effects

May not enter surface waters, the drainage system or groundwater.

13. DISPOSAL CONSIDERATIONS

13.1. Waste disposal methods

Hungarian regulations: Act CLXXXV of 2012. on Waste,

Decree No. 98 of 2001 (VI. 15.) of the Government on the requisites for activities related to hazardous wastes.

Decree 2008/98/EC on waste,

Decree on 72/2013. (VIII. 27.) of Ministry of Rural Development concerning the list of wastes.

Waste handling recommendations: The chemical safety of the packaging must be defined by the safety data sheet. The empty packaging should be thoroughly sealed.

The mixture turned into waste must be stored in its original packaging and should under no circumstance be treated a general waste. Ensure that the mixture does not enter surface waters, ground water and the drainage system.

Identification code by the list of wastes

14. TRANSPORTION INFORMATION

14.1. UN-number

ADR, IMDG, IATA: UN 1759

14.2. Transportation category according to the UN

Corrosive solids, n.o.s.

14.3. Transport hazard class

ADR, IMDG, IATA:

Class: 8 – Corrosive

Classification code: C10

14.4. Packaging group

II

14.5. Environmental hazards

None.

14.6. Special measures affecting the users

Kemler-number: 80

14.7. Transport in bulk according to Annex II of the MARPOL Convention and the IBC Code

Non applicable

14.8. Description on transport documents

UN 1759 CORROSIVE SOLIDS, N.O.S., 8, II, (E)

14.9. Further transportation information

Amount limit: 1 kg

Transport category: 2

Tunnel restriction code: E

15. INFORMATION ON REGULATIONS

15.1. EU Safety, health and environmental regulations applying to the given material

Regulation (EC)
No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, Commission Regulation

(EU) No 453/2010 amending Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), Commission Regulation

(EU) 2015/830 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), Regulation

(EC) No 1272/2008 (GHS) of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (Text with EEA relevance),

Council Directive 67/548/EEC (DSD) of 27 June 1967 on the approximation of laws, regulations and administrative provisions relating to the classification, packaging and labelling of dangerous substances, Council Directive 67/548/EEC on the approximation of laws, regulations and administrative provisions relating to the classification, packaging and labelling of dangerous substances,

Council Directive 1999/13/EC (VOC) on the limitation of emissions of volatile organic compounds due to the use of organic solvents in certain activities and installations,

Directive 1999/45/EC (DPD) of the European Parliament and of the Council concerning the approximation of the laws, regulations and administrative provisions of the Member States relating to the classification, packaging and labelling of dangerous preparations,

Council Directive 92/58/EEC on the minimum requirements for the provision of safety and/or health signs at work (ninth individual Directive within the meaning of Article 16 (1) of Directive 89/391/EEC)

Hungarian regulations applying

Act XXV of 2000.

Act XCIII of 1993.,

Decree 44/2000. (XII. 27.) EüM on detailed rules of certain procedures and activities related to dangerous substances and preparations.

Decree 25/2000. (IX. 30.) EüM-SzCsM regarding air pollution

15.2. Chemical safety evaluation

No further tests have been conducted by the successive users regarding the chemical safety evaluation

of the substance.

16. OTHER INFORMATION

Abbreviations and acronyms:

AC	Allowed average concentration is the average concentration of air pollutants per one working shift, which is normally not harmful to health. Even if the exposure time should be shorter than the reference time, the extent of air pollution may not exceed the Average Concentration.
CAS	Chemical Abstracts Service
DNEL	Derived No Effect level
DMEL	Derived Minimal Effect level
DSD	Council Directive (27 June 1967.) Dangerous Substance Directive (67/548/EGK).
EC50	The actual concentration of the substance, which results in 50% of the highest response..
EC number	EC number
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
ErC50	EC50 in terms of reduction of growth rate
GHS	Globally Harmonized System of Classification and Labelling of Chemicals
LC50	(Lethal concentration) An LC50 value is the concentration of a material in air that will kill 50% of the test subjects (animals, typically mice or rats) when administered as a single exposure (typically 1 or 4 hours). Also called the median lethal concentration and lethal concentration 50, this value gives you an idea of the relative acute toxicity of an inhalable material
LD50	(median lethal dose) is the amount of a solid or liquid material that it takes to kill 50% of test animals (for example, mice or rats) in one dose. This is closely related to the LDLo value which is the lowest dosage reported to have killed animals or humans LC50 (50% lethal

	concentration) is a related term used for gases, dusts, vapours, mists etc
MAC	The highest concentration of a chemical or potential toxin allowed by law to which a worker may be exposed during an 8-hour period of time.
NOAEL	No Observed Adverse Effect Level,
NOEC	No Observed Effect Concentration
NOEL	No Observed Effect Level
NOELr	No Observed Effect Loading Rate
POW	Partition Coefficient n-Octanol/Water
PBT	Persistant, bioaccumulative and poisonous substances
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals.
STEL	Short Term Exposure Limit,
TWA	Time Weighted Average,
VOC	Volatile organic compound
vPvB	Very persistent and very bioaccumulative substances

The full text of the H phrases in Sections 2 and 3 of the Safety Data Sheet

H250 Catches fire spontaneously if exposed to air

H260 In contact with water releases flammable gases which may ignite spontaneously

H314 Causes severe skin burns and eye damage

H318 Causes serious eye damage

References:

ECHA (European Chemicals Agency) : Database of registered substances and their properties: http://echa.europa.eu/en/information-on-chemicals

ECHA Guidance on the compilation of safety data sheets:

http://echa.europa.eu/documents/10162/13643/sds_en.pdf

ECHA Guidance on Labelling and Packaging:
http://echa.europa.eu/documents/10162/13562/clp_labelling_en.pdf

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