Safety Data Sheet

1. Identification

Product name	**RD14-3527**
Name of manufacture:	TOYO ALUMINIUM K.K.
Name of section	PASTE DEVELOPMENT & SALES DEPT.
Address	MIDOSUJI DAIWA BLDG, 6-8, KYUTAROMACHI 3-CHOME, CHUO-KU, OSAKA, 541-0056, JAPAN
Telephone number	81-745-69-3094
Fax number	81-745-69-6859
Emergency telephone number	81-745-69-3091(SHINJO works)
Recommended uses	Aluminium pigment for ink

Date of revision: —
Date of issue: March 28, 2014

2. Hazard identification

Label elements

According to Regulation (EC) No 1272/2008 [CLP]

Globally Harmonized System, EU (GHS)

Pictogram:

Signal Word: Warning

Hazard Statement:

H226	Flammable liquid and vapour
H319	Causes serious eye irritation
H336	May cause drowsiness or dizziness

Precautionary Statements (Prevention):

P210	Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
P241	Use explosion-proof electrical/ventilating/lighting/equipment.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.

Precautionary Statements (Response):

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.
P405	Store locked up.

According to Directive 67/548/EEC or 1999/45/EC

EEC Directives

R-phrase(s)	R10	Flammable.
R-phrase(s)	R36	Irritating to eyes.

S-phrase(s)

S7/8	Keep container tightly closed and dry.
S25	Avoid contact with eyes.

Hazard determining component(s) for labelling: 2-METHOXY-1-METHYLETHYL ACETATE, ISOPROPYLACETATE, aluminium powder (stabilised)

Classification of the substance or mixture

According to Regulation (EC) No 1272/2008 [CLP]
Flam. Liq. 3

According to Directive 67/548/EEC or 1999/45/EC
Possible Hazards:
Flammable.
For the classifications not written out in full in this section the full text can be found in section 16.

Other hazards

According to Regulation (EC) No 1272/2008 [CLP]
Other Hazards (GHS):
No specific dangers known, if the regulations/notes for storage and handling are considered.

3. Composition/Information on Ingredients

Mixtures

Description
Mixture of the substances listed below with harmless additions.

Dangerous components

2-methoxy-1-methylethyl acetate

Content (W/W): 88 - 91 %	Flam. Liq. 3
CAS Number: 108-65-6	H226, H319
EINECS Number: 203-603-9	
REACH registration number: 01-2119475791-29	

isopropyl acetate

Content (W/W): -10 %	Flam. Liq. 2
CAS Number: 108-21-4	H225, H319, H336
EINECS Number: 203-561-1	STOT SE 3 (drowsiness and dizziness)
REACH registration number: 01-2119537214-46	

aluminium powder (stabilised)

Content (W/W): 2.5 - 4.0 %	Flam. Sol. 1
CAS Number: 7429-90-5	Water-react. 2
EINECS Number: 231-072-3	H228
REACH registration number: 01-2119529243-45	

4. First-Aid Measures

Description of first aid measures
Remove contaminated clothing.

If inhaled:
If difficulties occur after vapour/aerosol has been inhaled, remove to fresh air and seek medical attention.

On skin contact:
Wash thoroughly with soap and water.

On contact with eyes:
Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

On ingestion:
Rinse mouth and then drink plenty of water.

Most important symptoms and effects, both acute and delayed
Symptoms: The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11., Further important symptoms and effects are so far not known.

Indication of any immediate medical attention and special treatment needed
Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

5. Fire-Fighting Measures

Extinguishing media
Suitable extinguishing media: dry powder, foam

Special hazards arising from the substance or mixture
harmful vapours
Evolution of fumes/fog. The substances/groups of substances mentioned can be released in case of fire.

Advice for fire-fighters
Special protective equipment: Wear a self-contained breathing apparatus.

Further information:
The degree of risk is governed by the burning substance and the fire conditions. Contaminated extinguishing water must be disposed of in accordance with official regulations.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures
Use personal protective clothing.
Breathing protection required.

Environmental precautions

Contain contaminated water/firefighting water.
Do not discharge into drains/surface waters/groundwater.

Methods and material for containment and cleaning up

For large amounts: Pump off product.
For residues: Pick up with suitable absorbent material. Dispose of absorbed material in accordance with regulations.

Reference to other sections

Information regarding exposure controls/personal protection and disposal considerations can be found in section 8 and 13.

7. Handling and Storage

Precautions for safe handling

Ensure thorough ventilation of stores and work areas.

Protection against fire and explosion:
Prevent electrostatic charge - sources of ignition should be kept well clear - fire extinguishers should be kept handy.

Conditions for safe storage, including any incompatibilities

Further information on storage conditions: Keep container tightly closed and in a cool place.

Storage stability:
Storage temperature: 0 - 40 °C

Protect from temperatures below: -15 °C
Protect from temperatures above: 40 °C

Specific end use(s)

For the relevant identified use(s) listed in Section 1 the advice mentioned in this section 7 is to be observed.

8. Exposure Controls/Personal Protection

Control parameters

Components with workplace control parameters

108-65-6: 1-methoxy-2-propylacetate
WEL
Short-term value: 548 mg/m^3 ; 100 ppm
Long-term value: 274 mg/m^3 ; 50 ppm

108-21-4: isopropyl acetate
WEL
Short-term value: 849 mg/m^3 ; 200 ppm

7429-90-5: aluminium powder (stabilised)
OES
Long-term value: 10* ; 4** mg/m³
*total dust; **respirable fraction

Additional information
The lists that were valid during the compilation were used as basis.

Exposure controls

Personal protective equipment

Respiratory protection:

Suitable respiratory protection for higher concentrations or long-term effect: Gas filter for gases/vapours of organic compounds (boiling point >65 °C, e. g. EN 14387 Type A)

Hand protection:

Chemical resistant protective gloves (EN 374)
Suitable materials also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN 374):
nitrile rubber (NBR) - 0.4 mm coating thickness
Supplementary note: The specifications are based on tests, literature data and information of glove manufacturers or are derived from similar substances by analogy. Due to many conditions (e.g. temperature) it must be considered, that the practical usage of a chemical-protective glove in practice may be much shorter than the permeation time determined through testing.
Manufacturer's directions for use should be observed because of great diversity of types.

Eye protection:

Safety glasses with side-shields (frame goggles) (e.g. EN 166)

General safety and hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wearing of closed work clothing is recommended.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Form:	liquid
Colour:	silver colours
Odour:	characteristic
Odour threshold:	not determined
pH value:	not determined
Freezing point:	not determined
Boiling point:	146 °C (Information applies to the solvent)
Flash point:	44 °C (Information applies to the solvent)
Evaporation rate:	not determined
Flammability:	Flammable.
Lower explosion limit:	1.5 %(V)
Upper explosion limit:	10.8 %(V)
Ignition temperature:	315 °C
Vapour pressure:	3.4 mbar (20 °C)
Density:	1.0 g/cm³ (20 °C)
Relative density:	No data available.
Relative vapour density (air):	not determined

Solubility in water:	immiscible
Partitioning coefficient n-octanol/water (log Kow):	
	Study does not need to be conducted.
Self-ignition:	not self-igniting
Thermal decomposition:	not determined
Explosion hazard:	not explosive
Fire promoting properties:	not fire-propagating

Other information

Grain size distribution: The substance / product is marketed or used in a non-solid or granular form.

10. Stability and Reactivity

Reactivity

No hazardous reactions if stored and handled as prescribed/indicated.

Chemical stability

The product is stable if stored and handled as prescribed/indicated.

Possibility of hazardous reactions

Stable under normal conditions

Conditions to avoid

Avoid heat. Avoid sources of ignition.

Incompatible materials

Substances to avoid: water

Hazardous decomposition products

Hazardous decomposition products:
No hazardous decomposition products if stored and handled as prescribed/indicated.

11. Toxicological Information

Information on toxicological effects

Acute toxicity
Primary irritant effect
On the skin: No irritant effect.
On the eye: Irritant effect.
Sensitization: No sensitizing effect known.
Additional toxicological information:
The product shows the following dangers according to the calculation method of the General EC Classification Guidelines for Preparations as issued in the latest version: Irritant

12. Ecological Information

Toxicity
Aquatic toxicity: No further relevant information available.

Persistence and degradability
No further relevant information available.

Bioaccumulative potential
No further relevant information available.

Mobility in soil (and other compartments if available)
No further relevant information available.

Additional ecological information:

General notes:

Water hazard class 1 (Self-assessment): slightly hazardous for water.

Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.

Results of PBT and vPvB assessment
PBT: No applicable.

vPvB: No applicable.

Other adverse effects
No further relevant information available.

13. Disposal Considerations

Waste treatment methods
Must be disposed of or incinerated in accordance with local regulations.

Contaminated packaging:

Uncontaminated packaging may be re-used to store solely the same product.
Contaminated packages should be disposed of in the same manner as the contents.

14. Transport Information

Land transport

ADR

Hazard class:	3
Packing group:	III
ID number:	UN 1993
Hazard label:	3
Proper shipping name:	FLAMMABLE LIQUID, N.O.S. (contains 2-METHOXY-1-METHYLETHYL ACETATE)

RID

Hazard class:	3
Packing group:	III
ID number:	UN 1993

Hazard label:	3
Proper shipping name:	FLAMMABLE LIQUID, N.O.S. (contains 2-METHOXY-1-METHYLETHYL ACETATE)

Inland waterway transport

ADN

Hazard class:	3
Packing group:	III
ID number:	UN 1993
Hazard label:	3
Proper shipping name:	FLAMMABLE LIQUID, N.O.S. (contains 2-METHOXY-1-METHYLETHYL ACETATE)

Sea transport

IMDG

Hazard class:	3
Packing group:	III
ID number:	UN 1993
Hazard label:	3
Marine pollutant:	NO
Proper shipping name:	FLAMMABLE LIQUID, N.O.S. (contains 2-METHOXY-1-METHYLETHYL ACETATE)

Air transport

IATA/ICAO

Hazard class:	3
Packing group:	III
ID number:	UN 1993
Hazard label:	3
Proper shipping name:	FLAMMABLE LIQUID, N.O.S. (contains 2-METHOXY-1-METHYLETHYL ACETATE)

15. Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture

If other regulatory information applies that is not already provided elsewhere in this safety data sheet, then it is described in this subsection.

Chemical Safety Assessment

Chemical Safety Assessment not yet performed due to registration timelines

16. Other Information

These data are based.on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Relevant phrases

H225 Highly flammable liquid and vapour.
H226 Flammable liquid and vapour.
H228 Flammable solid.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.

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R10 Flammable.
R11 Highly flammable.
R36 Irritating to eyes.
R66 Repeated exposure may cause skin dryness or cracking.
R67 Vapours may cause drowsiness or dizziness.

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. The data do not describe the product's properties (product specification). Neither should any agreed property nor the suitability of the product for any specific purpose be deduced from the data contained in the safety data sheet. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed. Vertical lines in the left hand margin indicate an amendment from the previous version.