

Material Safety Data Sheet

Product name	Aluminium(1050)
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1. Product and company identification

Product	Aluminium wrought metal, A1050 series alloys
Various fabricated aluminum parts and product	Aluminium coil
Chemical Formula	Mixture
Supplier Information	
Manufacture's Name	DONG-IL ALUMINIUM CO., LTD
Address	160, seonggeo-gil, seonggeo-eup, seobuk-gu, Cheonan-si, Chungnam, KOREA
Telephone	+82-41-559-2271

2. Hazards identification, including emergency overview

NFPA Rating Health = 0 , Flammability = 0 , Reactivity = 0

Pictograph



Emergency overview

Solid. Silver colored. Odorless. Non-combustible as supplied. Small chips, fine turnings and dust from processing may be readily ignitable.

Explosion/fire hazards may be present when (See Sections 5, 7 and 10 for additional information):

- Dust or fines are dispersed in air.
- Chips, dust or fines are in contact with water.
- Dust and fines are in contact with certain metal oxides (e.g., rust, copper oxide).

Potential health effects

No information found

Eye contact

Dust and fumes from processing: Can cause irritation.

Skin contact

Contact with residual oil/oil coating: Can cause irritation. Prolonged or repeated skin contact may cause dermatitis.

Dust and fumes from processing: Can cause irritation. Prolonged or repeated skin contact may cause sensitization and allergic contact dermatitis.

Inhalation

For dust exposure : If irritation or other pulmonary symptoms persist, seek medical attention.

Ingestion

Not applicable.

3. Composition / Information on ingredients

Product/Ingredient name	Identifiers	Classification		%
		67/548/EEC	Regulation (EC) no. 1272/2008 [CLP]	
Aluminium	REACH#.05-2116753684-35 EC : 231-072-3 CAS : 7429-90-5	Not Classified.	Not Classified.	99.5 ↑
Copper	REACH#.05-2116754263-46 EC : 231-159-6 CAS : 7440-50-8	Not Classified.	Not Classified.	0.05 ↓
Iron	REACH#.05-2116610284-55 EC : 231-096-4 CAS : 7439-89-6	Not Classified.	Not Classified.	0.40 ↓
Silicon	REACH#.05-2116749806-31 EC : 231-130-8 CAS : 7440-21-3	Not Classified.	Not Classified.	0.25 ↓
Manganese	REACH#.05-2116750366-42 EC : 231-105-1 CAS : 7439-96-5	Not Classified.	Not Classified.	0.05 ↓
Magnesium	REACH#.01-2119537203-49 EC : 231-104-6 CAS : 7439-95-4	Not Classified.	Not Classified.	0.05 ↓

Zinc	REACH#. 05-2114673989-20 EC : 231-175-3 CAS : 7440-66-6	Not Classified.	Not Classified.	0.05 ↓
Titanium	EC : 231-142-3 CAS : 7440-32-6	Not Classified.	Not Classified.	0.03 ↓

4. First Aid Measures

Eye contact	Dust and fumes from processing: Rinse eyes with plenty of water or saline for at least 15 minutes. Consult a physician.
Skin contact	Dust and fume from processing or contact with lubricant/residual oil: Wash with soap and water for at least 15 minutes. Get medical attention if irritation develops or persists.
Inhalation	Dust and fumes from processing: Remove to fresh air. Check for clear airway, breathing. Consult a physician

5. Fire Fighting Measures

Extinguishing media

Suitable extinguishing media	Use Class D extinguishing agents on fines, dust or molten metal. Use coarse water spray on chips
Unsuitable extinguishing media	Water, foam, halogenated extinguishing agents.

Advice for firefighters

Hazards from the substance or mixture	No specific fire or explosion hazard.
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Special protective actions	promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire.
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6. Accidental Release Measures

Spill or leak procedure	Collect scrap for recycling.
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7. Handling and Storage

Protective measures	Use standard techniques to check metal temperature before handling. Hot aluminium does not
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8. Exposure Controls / Personal Protection

Engineering controls	Dust and fumes from processing: Use with adequate explosion-proof ventilation designed to handle particulates to meet the limits listed in Section 9, Exposure Guidelines
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Occupational exposure limits

Product/ingredient name	Exposure limit values
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Aluminium	ACGIH TLV (United Statesm 2/2010). TWA : 1 mg/m3 8 hour(s). From : Respirable fraction: see Appendixc
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Manganese

ACGIH TLV (United States 2/2010).
TWA : 0.2 mg/m3 8 hour(s)

Silicon

Arbejdstilsynet (Denmark, 3/2008).
TWA : 10 mg/m3 8 hour(s)

Copper

Arbejdstilsynet(Norway, 3/2009).
TWA : 10 mg/m3 8 hour(s)
ACGIH TLV(United States, 2/2010).
TWA : 1 mg/m3, (as Cu) 8 hour(s).
TWA : 0.2 mg/m3 8 hour(s). From : Fume

Iron

P6 MTCN n M3 Hæbea6a No 13/2003(Bulgaria. 8/2007).

Exposure controls

Appropriate engineering controls
Individual protection measures

Special ventilation should be used to convey finely divided metallic dust generated by grinding,
cutting, grinding, etc. to avoid the dust from being inhaled.

Eye/face protection

Safety eyewear complying with an approved standard should be used when a risk assessment
indicates that the concentration of dust is above the recommended limit.

Skin protection

Hand protection

Use strong, cut-resistant gloves suitable for handling metals. Wear suitable gloves.

Body protection

No special protective clothing is required. Recommended : For handling molten metal : Clothing must
be resistant to drops of molten metal and radiant heat.

Environmental exposure controls

Recommended : If workers are exposed to concentrations above the exposure limit, they must use

9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state	Solid. [Metal]
Colour	Silvery grey
Odour	Odourless.
Odour threshold	Not applicable.
pH	Not applicable.
Melting point/freezing point	482 to 660°C
Initial boiling point and boiling range	Not applicable.
Flash point	Not applicable.
Flammability(solid, gas)	Not applicable.
Burning time	Not applicable.
Burning rate	Not applicable.
Upper/lower flammability or explosion limits	Not applicable.
Vapour pressure	Not applicable.
Vapour density	Not applicable.
Bulk density	Not applicable.

Relative density	2.5 to 2.9
Solubility(ies)	Insholuble in the following materials : cold water, hot water, methanol, diethyl ether,
Partition coefficient : n-octanol/water	Not applicable.
Auto-ignition temperature	Not applicable.
Decomposition temperature	Not applicable.
Viscosity	Not applicable.
Explosive properties	Not applicable.
Oxidising properties	Not applicable.
Other information	No additional information.

10. Stability and reactivity

Reactivity	No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	The product is stable.
Possibility of hazardous reactions	Under normal conditions of storage and use, hazardous reaction will not occur. Fine dust presents an explosion hazard if dispersed in air at high concentrations.
Conditions to avoid	In the form of particles, may explode when mixed with halogenated acids, halogenated solvents, bromates, iodates or ammonium nitrate. Aluminium particles on contact with copper, lead, or iron oxides can react vigorously with release of heat if there is a source of ignition or intense heat. Melted aluminium may react violently if it comes into contact with water.
Incompatible materials	In the form of particles, may explode when mixed with halogenated acids, halogenated solvents, bromates, iodates or ammonium nitrate. Aluminium particles on contact with copper, lead, or iron
Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be considered.

11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
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Aluminium	LC50 Inhalation Dusts and mists	Rat	>2350 mg/l	4 hours
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Conclusion/Summary No known significant effects or critical hazards.

Irritation/Corrosion

Eyes Not applicable for solid metal form. Aluminium dust may cause eye discomfort and irritation.

Sensitisation

Skin Non-sensitiser.

Respiratory Non-sensitiser.

Mutagenicity

Conclusion/Summary No mutagenic effect.

Carcinogenicity

Conclusion/Summary No carcinogenicity effect.

Reproductive toxicity

Conclusion/Summary Not considered to be toxic to the reproductive system.

Teratogenicity

Conclusion/Summary No teratogenic effect.

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
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No known significant effects or critical hazards.

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	Route of exposure	Target organs
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No known significant effects or critical hazards.

Aspiration hazard Not applicable.

Information on the likely routes of Routes of entry anticipated : Inhalation.

Potential acute health effects

Eye contact Not applicable.

Inhalation Not applicable.

Skin contact Contact with hot material causes thermal skin burns.

Ingestion Not applicable.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact No specific data.

Inhalation No specific data.

Skin contact No specific data.

Ingestion No specific data.
 Delayed and immediate effects and also chronic effects from short and long term exposure
 Short term exposure
 Potential immediate effects No specific data.
 Potential delayed effects No specific data.
 Long term exposure
 Potential immediate effects No specific data.
 Potential delayed effects No specific data.
 Potential chronic health effects

Conclusion/Summary No known significant effects or critical hazards.

General No known significant effects or critical hazards. Not applicable for metal solid form.
 Carcinogenicity No known significant effects or critical hazards.
 Mutagenicity No known significant effects or critical hazards.
 Teratogenicity No known significant effects or critical hazards.
 Developmental effects No known significant effects or critical hazards.
 Fertility effects No known significant effects or critical hazards.

12. Ecological effects

Environmental effects No information found
 Environmental toxicity No information found

13. Disposal considerations

Methods of disposal Recycle, if possible. The generation of waste should be avoided or minimised wherever possible. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor.
 Hazardous waste Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 91/676/EEC.
 Special precautions Not applicable.

14. Transport information

UN number	ADR/RID	AND/ADNR	IMDG	IATA
UN proper shipping name	Not regulated.	Not regulated.	Not regulated.	Not regulated.
Transport hazard class	-	-	-	-
Packing group	-	-	-	-
Environmental hazards	No.	No.	No.	No.
Special precaution for user	Not applicable.	Not applicable.	Not applicable.	Not applicable.
Additional information	-	-	-	-

14. Transport information

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

EU Regulation (EC) No. 1907/2006(REACH)

Annex XIV – List of substances subject to authorisation

Substances of very high concern

None of the components are listed.

Annex XVII – Restrictions Not applicable.

Other EU Regulations

Europe inventory All components are listed or exempted.

Black List Chemicals Not listed.

Priority List Chemicals Not listed.

Integrated pollution Prevention and control list(IPPC) – Air Listed.

Integrated pollution Prevention and control list(IPPC) – Water Listed.

International regulations

Chemical Weapons Convention List Schedule I Not listed.

Chemical Weapons Convention List Schedule II Not listed.

Chemical Safety Assessment Complete.

15. Other information

Abbreviations and acronyms	ATE = Acute Toxicity Estimate CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]	
Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]	Classification	Justification
	Not classified.	
Full text of abbreviated H	Not applicable.	
Full text of classifications[CLP/GHS]	Not applicable.	
Full text of abbreviated R	Not applicable.	
Full text of classifications[DSD/DPD]	Not applicable.	
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