				,	blicable; n.av. = no		→ Lotformteile → Metallwaren → Maschinen- und Vorrichtungsbau	
SE	CTION 1	dentificatio	on of the su	ubstance/mix	ture and of the	company/un	dertaking	
.1	Produc	t identifier: n.a	Э.					
				05, AL 107, AL	111, AL 112			
.2	Releva	nt identified us	es of the sub	stance or mixtu	re and uses advis	ed against: None	Э.	
	Use: Brazing alloy (Aluminium)							
		al nature of the						
_					11 / EN ISO 17672:	2010 (Germany)		
.3		of the supplier		data sheet:				
		s: Manufacture		O Fisingen Com				
				9 Eisingen, Gern fax: + 497232 809				
				il: j.wirth@hpwirth				
	Respor			n. j.wiru i@ripwiru	1.00111			
			mical Consult	ancv. graduate cł	nemist, R. Fechner	<b>2</b> + 49 52	54 9575 05	
		fo@chemco12						
.4	Emerge	ency telephone	number:					
				nptoms of Poisor	ning: +49 30 19 240	(with costs)		
	Emerge	ency - Telephone	e of Company	/ Undertaking + 4	197232 80978 12	-		
	Emergency - Telephone of Company / Undertaking + 497232 80978 12							
-	-							
<b>SE</b> 2.1	Classifi	: Hazards id cation of the s cation accordi	ubstance or r	nixture: :	egulation (EC) 12	72/2008:		
2.2 2.3	Classifi Classifi None. Label e Label e None. Other h For Hui Vapour For the None. Persiste Very pe	cation of the sication accordi lements: lements accord azards: mans: during processi Environment: ent, bioaccumula rsistent and very	ubstance or r ng to Directiv ding to Direct ng may be irrita tive and toxic bioaccumula	nixture: : re 1999/45 and R tive 1999/45 and ating to the respir substances (PBT tive substances (	Regulation (EC) 1 atory tract and to th -substances): Non vPvB-substances):	<b>272/2008:</b> e eyes. e.		
.1 .2 .3	Classifi Classifi None. Label e Label e None. Other h For Hu Vapour For the None. Persiste Very pe	cation of the sication accordi lements: lements accord azards: mans: during processi Environment: ent, bioaccumula rsistent and very	ubstance or r ng to Directiv ding to Direct ng may be irrita tive and toxic bioaccumula	nixture: : re 1999/45 and R tive 1999/45 and ating to the respir substances (PBT	Regulation (EC) 1 atory tract and to th -substances): Non vPvB-substances):	<b>272/2008:</b> e eyes. e.		
.1	Classifi Classifi None. Label e Label e None. Other h For Hu Vapour For the None. Persiste Very pe	cation of the sication accordi lements: lements accord azards: mans: during processi Environment: ent, bioaccumula rsistent and very	ubstance or r ng to Directiv ding to Direct ng may be irrita tive and toxic bioaccumula	nixture: : re 1999/45 and R tive 1999/45 and ating to the respir substances (PBT tive substances (	Regulation (EC) 1 atory tract and to th -substances): Non vPvB-substances):	272/2008: e eyes. e. None. Symbol /	R - / H - phrases	
.1 .2 .3	Classifi Classifi None. Label e Label e None. Other h For Hu Vapour For the None. Persiste Very pe	cation of the sication accordi lements: lements accordi azards: mans: during processi Environment: ent, bioaccumula rsistent and very Composition ous Ingredient	ubstance or r ng to Directiv ding to Direct ng may be irrit tive and toxic bioaccumula on/informat s:	nixture: : re 1999/45 and R tive 1999/45 and ating to the respir substances (PBT tive substances ( tion on ingree	Regulation (EC) 1 atory tract and to th -substances): Non vPvB-substances): dients	<b>272/2008:</b> e eyes. e. None.	R - / H - phrases	
.1 .2 .3	Classifi Classifi None. Label e Label e None. Other h For Hui Vapour For the None. Persiste Very pe CTION 3: Danger CAS - No.	cation of the sication accordi lements: lements accordi azards: mans: during processii Environment: ent, bioaccumula rsistent and very : Composition ous Ingredient Index - No.	ubstance or r ng to Directiv ding to Direct ng may be irrita tive and toxic bioaccumula on/informat s: EC - No.	nixture: : re 1999/45 and R tive 1999/45 and ating to the respir substances (PBT tive substances ( tion on ingree Material	Regulation (EC) 1 atory tract and to th -substances): Non vPvB-substances): dients m% - range	272/2008: e eyes. e. None. Symbol / pctogram (e)	•	
1 2 3 <b>SE</b>	Classifi Classifi None. Label e Label e None. Other h For Hui Vapour For the None. Persiste Very pe CTION 3 Danger CAS - No. 7429-90-5	cation of the sication accordi lements: lements accordi azards: mans: during processi Environment: ent, bioaccumula rsistent and very : Composition ous Ingredient Index - No.	ubstance or r ng to Directiv ding to Direct ng may be irrit ative and toxic bioaccumula on/informat s: EC - No.	nixture: : re 1999/45 and R tive 1999/45 and ating to the respir substances (PBT tive substances ( tion on ingree Material aluminium	Regulation (EC) 1 atory tract and to th -substances): Non vPvB-substances): dients m% - range 85,5 - 87,5 %	272/2008: e eyes. e. None. Symbol / pctogram (e) n.ap.	n.ap.	
1 2 3 <b>SE</b>	Classifi Classifi None. Label e Label e None. Other h For Hui Vapour For the None. Persiste Very pe CTION 3 Danger CAS - No. 7429-90-5 7440-21-3	cation of the sication accordi lements: lements accordi azards: mans: during processii Environment: ent, bioaccumula rsistent and very : Compositio ous Ingredient Index - No. None not applicable	ubstance or r ng to Directiv ding to Direct ng may be irrit ative and toxic bioaccumula on/informat s: EC - No. 231-072-3 231-130-8	nixture: : re 1999/45 and R tive 1999/45 and ating to the respir substances (PBT tive substances ( tion on ingree Material aluminium silicium	Regulation (EC) 1 atory tract and to th -substances): Non vPvB-substances): dients m% - range 85,5 - 87,5 % 4,5 - 13 %	272/2008: e eyes. e. None. Symbol / pctogram (e) n.ap. n.ap.	n.ap. n.ap.	
.1 .2 .3	Classifi Classifi None. Label e Label e None. Other h For Hui Vapour For the None. Persiste Very pe CTION 3 Danger CAS - No. 7429-90-5 7440-21-3 7439-89-6	cation of the sication accordi lements: lements accordi azards: mans: during processii Environment: ent, bioaccumula rsistent and very : Composition ous Ingredient Index - No. None not applicable None	ubstance or r ng to Directiv ding to Direct ng may be irrit ative and toxic bioaccumula on/informat s: EC - No. 231-072-3 231-130-8 231-096-4	nixture: : re 1999/45 and R tive 1999/45 and ating to the respir substances (PBT tive substances ( tion on ingree Material aluminium silicium iron	Regulation (EC) 1   atory tract and to th   -substances): Non   vPvB-substances):   dients   85,5 - 87,5 %   4,5 - 13 %   0,60 - 0,87 %	272/2008: e eyes. e. None. <u>Symbol / pctogram (e)</u> n.ap. n.ap. n.ap.	n.ap. n.ap. n.ap. n.ap.	
.1 .2 .3	Classifi Classifi None. Label e Label e None. Other h For Hui Vapour For the None. Persiste Very pe CTION 3 Danger CAS - No. 7429-90-5 7440-21-3 7439-89-6 None.	cation of the sication accordi lements: lements accordi azards: mans: during processii Environment: ent, bioaccumula rsistent and very cous Ingredient Index - No. None not applicable None None	ubstance or r ng to Directiv ding to Direct ng may be irrit ative and toxic bioaccumula <b>Dn/informat</b> <b>S:</b> <b>EC - No.</b> 231-072-3 231-096-4 231-159-6	nixture: : re 1999/45 and R tive 1999/45 and R ating to the respir substances (PBT tive substances ( tion on ingree Material aluminium silicium iron copper	Regulation (EC) 1   atory tract and to th   -substances): Non   vPvB-substances):   dients   85,5 - 87,5 %   4,5 - 13 %   0,60 - 0,87 %   0,3 %	272/2008: e eyes. e. None. Symbol / pctogram (e) n.ap. n.ap. n.ap. n.ap. n.ap.	n.ap. n.ap. n.ap. n.ap.	
.1 .2 .3	Classifi Classifi None. Label e Label e None. Other h For Hui Vapour For the None. Persiste Very pe CTION 3: Danger CAS - No. 7429-90-5 7440-21-3 7439-89-6 None. 7440-66-6	cation of the sication accordi lements: lements accordi azards: mans: during processii Environment: ent, bioaccumula rsistent and very cous Ingredient Index - No. None not applicable None None None	ubstance or r ng to Directiv ding to Direct ng may be irrit tive and toxic bioaccumula <b>Dn/informa</b> s: EC - No. 231-072-3 231-130-8 231-096-4 231-159-6 231-175-3	nixture: : re 1999/45 and R tive 1999/45 and R ating to the respir substances (PBT tive substances ( tion on ingree Material aluminium silicium iron copper zinc	Regulation (EC) 1   atory tract and to th   -substances): Non   vPvB-substances): Non   vPvB-substances): Non   dients   dients   85,5 - 87,5 %   4,5 - 13 %   0,60 - 0,87 %   0,3 %   10 - 12 %	272/2008: e eyes. e. None. Symbol / pctogram (e) n.ap. n.ap. n.ap. n.ap. n.ap. n.ap.	n.ap. n.ap. n.ap. n.ap. n.ap. n.ap.	

General advice:

Show this safety data sheet to the doctor in attendance. **Inhalation:** 

No hazards resulting from the material as supplied.

L

	name: AL 105, AL 107, AL 111, AL 112
	facturer / Supplier: H.P.Wirth GmbH, Weberstr. 46, 75239 Eisingen, Germany
Teleph	none: + 497232 80978 12, Date of issue: 14.04.2014 Replaces Data Sheet of: 09.10.2008
	Skin Contact:
	Wash off with soap and water.
	Eye Contact:
	No hazards resulting from the material as supplied.
	Ingestion:
	No hazards resulting from the material as supplied.
4.2	Most important symptoms and effects, both acute and delayed:
4.2	
10	None.
4.3	Indication of any immediate medical attention and special treatment needed:
	None.
* 950	TION 5. Eirofighting massures
	CTION 5: Firefighting measures
5.1	Extinguishing media:
	Suitable Extinguishing Media: The product itself does not burn. Use extinguishing measures that are appropriate
	to local circumstances and the surrounding environment.
	Unsuitable extinguishing media: None.
5.2	Special hazards arising from the substance or mixture:
	In the event of fire the following can be released: Vapours and decomposition products with irritating effects.
5.3	Advice for firefighters: None.
	Special Protective Equipment:
	None. Wear positive pressure self-contained breathing apparatus.
	Wear full protective clothing.
* SEC	CTION 6: Accidental release measures
6.1	Personal precautions, protective equipment and emergency procedures:
	No hazards resulting from the material as supplied.
6.1.1	For non-emergency personnel:
0.1.1	Use personal protective equipment.
6.1.2	For emergency responders:
0.1.2	
~ ~	Use personal protective equipment. Environmental Precautions:
6.2	
~ ~	No special environmental precautions required. Take up mechanically and collect in suitable container for disposal.
6.3	Methods and material for containment and cleaning up:
6.3.1.	Methods and material for containment:
	Take up mechanically and collect in suitable container for disposal.
6.3.2	Methods and material for cleaning up:
	Take up mechanically
6.3.3	Inappropriate containment or clean-up techniques:
	None.
6.4	Reference to other sections:
-	See Section 8/13.
	CTION 7: Handling and storage
7.1	Precautions for safe handling:
7.1.1	Recommendations shall be specified to:
	No hazards resulting from the material as supplied.
	During processing: Provide sufficient air exchange and/or exhaust in work rooms.
7.1.2	Advice on general occupational hygiene shall be provided:
	Do not breathe vapour. When using do not eat or drink.
7.2	Conditions for safe storage, including any incompatibilities:
	No special storage conditions required.
	Precautions in Case of Fire and Explosion:
	Normal measures for preventive fire protection.
7.3	Specific end use(s):
	Brazing alloy (Aluminium).

1	Control parameters: Exposure Limits: CAS / Material		
	CAS / Material		
			Limit Value according to TRGS 900/ EC Guidline 2000/39
	7439-96-5 / manganese and inorganic compounds	i und the	AGW: 0,5 E (respirable fraction), Y, MAK (DFG) : 0,02 mg/m <sup>3</sup> (Alveole passing fraction); 0,2 mg/m <sup>3</sup> respirable fraction; 8(II), BAR: : 15 µg/l, B, c, b (Germany, TRGS 903)
2	Exposure controls:		
2.1			
	During processing: Provid	le sufficient air	exchange and/or exhaust in work rooms.
2.2	Personal Protective Equ Respiratory Protection:	No hazards re During proces	esulting from the material as supplied. ssing: In case of insufficient ventilation, wear suitable respiratory equipmer
	Hand Protection:	respirator with	
	Long Term – Exposure / S		esulting from the material as supplied. xposure:
	Long rollin Exposulor		ssing: Leather gloves
	Eye Protection:	During proces	esulting from the material as supplied. ssing: Safety glasses
	Skin Protection:	Not required	
	Further Information:	substance at	protection according to the amount and concentration of the dangerous the work place.
2.3	Thermal hazards: Environmental exposur	None.	
	Environmental expecta		
SE	CTION 9: Physical and	chemical	properties
1	Information on basic ph		•
	Appearance:	<b>,</b>	liquid
	Colour:		silver
	Odour:		None
	Odour threshold:		n.ap.
	Safety Relevant Data		
	pH-value, undiluted:		not applicable
	Boiling point / Boiling - ran	ge (°C):	not applicable
	Melting point / Melting ran	ge (°C):	575 - 585
	Flash point (°C):		not applicable
	Flammability:		not applicable
	Ignition temperature (°C):	٠.	not applicable
	Autoflammability (EC A16 Oxidising properties:	)):	not applicable not applicable
	Explosion hazard:		not applicable
	Explosion limits (Vol.%) lo	wer:	not applicable, upper: not applicable
	Vapour pressure:		not applicable
	Density (g/ml):		~9
	Solubility (in Water):		insoluble
	Partition coefficient, n-Oct	anol/Water:	no data available
	Viscosity:		no data available
	Solvent content (m %): Fat solubility:		not applicable
	r at solubility.		

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.2	Other information:				
.2	Thermal decomposition (°C):	no data available			
	Vapour density (Air = 1):	no data available			
	Evaporation rate:	no data available			
SEC	TION 10: Stability and reactivity	,			
0.1	Reactivity:				
10.2	No hazards resulting from the material as supplied. Chemical stability:				
10.2	Stable at normal conditions				
0.3	Possibility of hazardous reactions: None.				
10.4	Conditions to avoid:				
	None.				
10.5	Incompatible materials: Keep away from oxidising agents, strongly alkaline and strongly acid materials.				
10.6	Hazardous decomposition :	yıy analılı ic alılu siloliyiy acilu materials.			
10.0	None.				
	TION 11, Toxicological informa	tion			
3EC	TION 11: Toxicological information on toxicological effects				
1.1.1	Mixtures - No hazards resulting from	the material as supplied.			
		Maria			
	Inhalation, LC <sub>50</sub> rat, (mg/l/4h):	None.			
	Ingestion, LD50 rat, (mg/kg):	None.			
	Skin - contact, LD <sub>50</sub> rat, (mg/kg):	None.			
	Irritation (eye):	None.			
	Corrosivity:	None.			
	Sensitisation:	None.			
	Repeated dose toxicity:	no data available			
	Carcinogenicity:	no data available			
	Mutagenicity:	no data available			
	Toxicity for reproduction	None			
1.1.2	Substances				
	Acute Health Effects of Manganese:				
	Ingestion, LD <sub>50</sub> rat, (g/kg):	9			
	Skin - contact, LD50 rabbit, (mg/kg):	no data available			
	Inhalation, LC <sub>50</sub> rat, (mg / $m^3$ , 30 min):	no data available			
	Skin corrosion/irritation:	None			
	Serious eye damage/irritation:	None			
	Respiratory or skin sensitisation	None.			
	Germ cell mutagenicity:	no data available			
	Carcinogenicity:	no data available			
	Reproductive toxicity:	There is no reason to fear a risk to humans when the exposure limit is adhered to.			
	STOT-single exposure:	no data available			
	STOT-repeated exposure:	no data available			
	Aspiration hazard:	None.			
SEC	TION 12: Ecological information	<u>ו</u>			
2.1	Ecotoxic Effects, Aquatic Toxicity:				
	Not water endangering				
2.2	Persistence and degradability:				
	May be separated mechanically in waste	e water plants.			
2.3	Bioaccumulative potential:	-			
	Does not bioaccumulate.				

Trade	name: AL 105, AL 107, AL 111, AL 112
	facturer / Supplier: H.P.Wirth GmbH, Weberstr. 46, 75239 Eisingen, Germany
	none: + 497232 80978 12, Date of issue: 14.04.2014 Replaces Data Sheet of: 09.10.2008
	······································
12.4	Mobility in sol:
12.7	Does not bioaccumulate.
12.5	Results of PBT and vPvB assessment:
12.0	Persistent, bioaccumulative and toxic substances (PBT-substances): None.
	Very persistent and very bioaccumulative substances (vPvB-substances): None.
12.6	Other adverse effects
12.0	
SEC	CTION 13: Disposal considerations
3.1	Waste treatment methods:
0.1	Methods of waste treatment of both the substance or mixture and any contaminated packaging
	Recommendation: R3 / D1
	Waste - Code - No.: 17 04 - metals (including their alloys). 17 04 07 – blended metals
SEC	CTION 14: Transport information
	Transportation by Road or Railway according to ADR/GGVS and RID/GGVE
	Transportation by Vessels according to IMDG/GGVSee
	Transportation by Aeroplane according to IATA-DGR/ICAO-TI
	Remarks: Not dangerous goods
	CTION 15: Regulatory information
5.1	Safety, health and environmental regulations/legislation specific for the substance or mixture
	TRGS 528
5.2	Chemical safety assessment: None.
SEC	CTION 16: Other information
	ises / H phrases:
None.	
	r information to work out the Data sheet:
	the producer.
	atements in this Material Safety Data Sheet were made to the best of our knowledge and are as accurate as possible.
	re given for information only. They do not constitute a contractual guarantee of a product's properties. They must
	be altered nor transferred to other products.
	2014
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