

# Safety data sheet according to Regulation (EC) No. 1907/2006

Trade name: esplas H60 Axx, H130 Axx  
Revision date: 22 November 2017  
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## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifier

Substance name/ Trade name: **esplas H60 A10, A30, A50 / esplas H130 A10, A30, A50**

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses: Separating and test dust

Uses advised against: -

### 1.3 Details of the supplier of the safety data sheet

Manufacturer/ Supplier: KSL staubtechnik gmbh  
Address/ PO Box: Westendstrasse 11  
Nat.-Ident./ Postcode/ city: DE - 89415 Lauingen  
Telephone/ Fax/ E-mail: +49 (0) 9072 / 95 00-0 / Fax no: -50 / info@ksl-staubtechnik.de

### 1.4 Emergency telephone number

+49 (0) 9072/ 95 00-0 (Accessibility: Mon-Thu 8am to 4pm, Fri 8am to 12pm)

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

#### 2.1.1 Classification according to Regulation (EC) No. 1272/2008

Hazard class: Eye Irrit. 2 – Serious eye damage/irritation  
Hazard category: 2  
Hazard warnings: H319 Causes serious eye irritation

### 2.2 Label elements

#### 2.2.1 Label elements according to Regulation (EC) No. 1272/2008



GHS07

Signal word: Attention  
Hazards: H319 Causes serious eye irritation  
Safety precautions: P264 Wash skin thoroughly after use  
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.  
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes.  
Remove contact lenses, if present and easy to do. Continue rinsing.  
P337 + P313 If eye irritation persists: Get immediate medical advice/attention.

### 2.3 Other hazards

Slight skin irritation.  
Harmful to aquatic organisms.  
Flammable solid.  
Dust and air can form mixtures that may explode - risk of dust explosion.  
Under normal use, adverse health effects are not known or expected.

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

The product is a mixture.

### 3.2 Mixtures

Composition/ information on ingredients

Description of the mixture: esplas H60 Axx, H130 Axx  
Hazardous ingredients: Adipic acid

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Product identifier	CAS No.	EC No.	Concentration range [M.-%]	Reg. no. (REACH)	Classification according to Regulation (EC) No. 1272/2008
Polymethyl methacrylate	9011-87-4	-	49.9-89.8%	exempt	Not applicable
Adipic acid	124-04-9	204-673-3	10-50%	exempt	- Eye Irrit. 2 - Category 2 - H319

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

#### General notes:

If symptoms persist, it is advised to consult a doctor. Please specify substance/product and measures taken to the doctor.

#### After inhalation:

Move to fresh air. Consult a doctor.

#### After skin contact:

Wash with plenty of soap and water. Remove/Take off immediately all contaminated clothing and shoes. Consult a doctor.

#### After eye contact:

While protecting the uninjured eye, rinse the eye under running water for 15 minutes with eyelids held open wide. Remove contact lenses, if present and easy to do. Continue rinsing. Consult a doctor.

#### After ingestion:

Rinse mouth with plenty of water. Spit out the fluid once more. Do not induce vomiting. Consult a doctor.

### 4.2 Most important symptoms and effects, both acute and delayed

Dust may cause irritation of the eyes and respiratory tract.

### 4.3 Indication of any immediate medical attention and special treatment needed

Treat according to symptoms.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

#### Suitable:

Water mist spray, alcohol-resistant foam, dry powder, carbon dioxide

#### Unsuitable:

Solid water jet: Hazard of dust cloud mixture

### 5.2 Special hazards arising from the substance or mixture

Dust and air may form explosive mixtures.

With prolonged heating above 250°C (referring to polymethyl methacrylate), hazardous decomposition products (e.g. methyl methacrylate, oxidised hydrocarbons, carbon monoxide, carbon particles and carbon dioxide) can form. Inhalation of vapours in high concentrations may irritate the respiratory tract.

### 5.3 Advice for firefighters

Wear a self-contained breathing apparatus and suitable protective clothing.

### 5.4 Additional advice

Take precautionary measures against static charges. Avoid dust formation.

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

Wear protective clothing as described under Section 8. Do not inhale vapours/mist/gas. Ensure adequate ventilation. Guide people to safety. Avoid inhalation of dust. Follow the instructions for safe use, as described under Section 7. Avoid dust formation. Remove all sources of ignition.

#### 6.1.2. For emergency responders

Emergency plans are not necessary. With high dust levels, respiratory protection is however required.

### 6.2 Environmental precautions

No direct discharge of aqueous suspensions in water. Keep the substance away from waters, sewerage or soil.

### 6.3 Methods and material for containment and cleaning up

#### 6.3.1 Notes for containment

Avoid dust generation.

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## 6.3.2 Notes for clean-up

Absorb or suck the mixture mechanically. For disposal, collect it in the containers provided for this purpose, according to local regulations. Use approved industrial vacuum cleaners or suction systems for potentially explosive areas.

## 6.3.3 Advice on inappropriate containment and cleaning methods

Blowing-off for cleaning purposes is not permitted.

## 6.4 Reference to other sections

As to disposal, please refer to Section 13 of the Safety Data Sheet (SDS).

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

#### 7.1.1 Recommendations on safe handling

Avoid formation of dust as well as dust deposits. If dust should form, ensure suitable ventilation. Information on safety precautions can be found in Section 2.2.

#### Measures to prevent fire and explosion

Take precautionary measures against static charges. Avoid dust formation. Keep away from sources of ignition. In case of fire, cool endangered product with water.

#### Measures to prevent aerosol and dust generation

Sweep only with an appropriate cleaning agent. For cleaning, use suitable methods as dry as possible - such as vacuum intake - that do not cause dust generation.

#### Measures to protect the environment

Keep the substance away from waters, sewerage or soil.

#### 7.1.2 Advice on general occupational hygiene

During work do not drink, eat or smoke. Wash hands after use/ contact. In dusty atmosphere, use breathing masks and safety goggles.

### 7.2 Conditions for safe storage, including any incompatibilities

#### Advice on storage conditions

Store containers dry. Do not store together with explosives and/or oxidising substances.

#### Requirements for storage rooms and vessels

Store in dry and sealed containers, possibly the original ones.

#### Storage class

VCI: 11 (flammable solids)

### 7.3 Specific end use(s)

#### Industry and sector specific guidance

For specific end uses (see Section 1.2), no additional information is available.

Not intended for thermal processing.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

Components with workplace-related limit values to be monitored:

Chemical identity	CAS No.	EC No.	National limit value	Exposure type	Comment/ Legal provision
General dust limit value	-	-	1,25 (A) mg/m <sup>3</sup> (respirable)	inhalative	Workplace-related limit value TRGS 900
General dust limit value	-	-	10 (E) mg/m <sup>3</sup> (inhalable)	inhalative	Workplace-related limit value TRGS 900

The international limit values for adipic acid can be found in the GESTIS database at the following link:

[http://limitvalue.ifa.dguv.de/WebForm\\_ueliste.aspx](http://limitvalue.ifa.dguv.de/WebForm_ueliste.aspx)

For further information on the limit values of other countries, please consult a competent occupational hygiene expert or the local regulatory authority of the country involved.

### 8.2 Exposure controls

To comply with workplace-related limit values, combined technical and individual protection measures are often necessary.

Recommended measuring procedures for workplace-related measurements: see the professional association series of papers.

Technical measures and the selection of appropriate processes have priority over the use of personal protective equipment.

#### 8.2.1 Appropriate engineering controls

For the identified uses (Section 1.2), technical control devices and personal protection measures are recommended. Ventilate as required to control dust in the air. With high dust content in the air, use an explosion-proof ventilation system.

#### 8.2.2 Individual protection measures such as personal protective equipment

##### General

Treat the product in compliance with the safety instructions.

##### Eye/face protection

In case of dust generation, wear closed protective goggles according to the EN 166 Standard.

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## Skin/hand protection

Wear protective gloves according to the EN 374 Standard.

## Respiratory protection

In case the exposure limit values are exceeded (e.g. with open handling of powdery product), a suitable breathing mask with P2 particle filter must be worn according to Standard 143. In the unlikely event of formation of particularly high dust concentrations, a self-contained breathing apparatus may be advisable.

## Occupational hygiene

During work do not drink, eat or smoke. Wash your hands before any breaks and after finishing work, and if necessary have a shower. Avoid contact with eyes and skin. After work, workers should wash or have a shower and use skin care products. Clean contaminated clothing, shoes, watches, etc., before re-using.

### 8.2.3 Environmental exposure controls

See Sections 6 and 7. No further action is required.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

(a)	<b>Appearance:</b> - Aggregate state - Colour	Powder - solid varying - white, whitish, greyish, reddish
(b)	<b>Odour</b>	weak
(c)	<b>Odour threshold:</b>	no data available
(d)	<b>pH-value:</b>	2.5 - 3 (100 g/l at 20°C)
(e)	<b>Melting point/ freezing point:</b>	Adipic acid 151°C Acrylic polymer based on methyl methacrylate 105°C - 130°C.
(f)	<b>Initial boiling and boiling range:</b>	not applicable
(g)	<b>Flash point:</b>	~ 200°C
(h)	<b>Evaporation rate:</b>	not applicable
(i)	<b>Flammability (solid, gas):</b>	no data available
(j)	<b>Lower explosive limits:</b>	≥ 30 g/m <sup>3</sup>
(k)	<b>Vapour pressure:</b>	0.1 hPa at 20°C
(l)	<b>Vapour density:</b>	no information available
(m)	<b>Relative density:</b>	no information available
(n)	<b>Solubility:</b>	partially soluble in water readily soluble, e.g. in esters, ketones and chlorinated hydrocarbons
(o)	<b>Partition coefficient:</b>	no data available
(p)	<b>Auto-ignition temperature:</b>	> 350°C
(q)	<b>Decomposition temperature:</b>	> 330°C
(r)	<b>Viscosity:</b>	not applicable as it is not a liquid
(s)	<b>Explosive properties:</b>	explosive (dust explosion class ST1) in dust-air mixture and not pyrotechnic.
(t)	<b>Oxidising properties:</b>	not applicable, the mixture has no oxidising properties

### 9.2 Other information

Not applicable

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

In case of appropriate storage and handling, no hazardous reactions are known.  
Dust explosion hazard with dust-air mixtures.

### 10.2 Chemical stability

Under normal ambient temperature and pressure the mixture is stable.

### 10.3 Possibility of hazardous reactions

No hazard under normal storage conditions.  
Exothermic reaction with strong acids.

### 10.4 Conditions to avoid

Temperatures > 105°C, moisture

### 10.5 Incompatible materials

Strong oxidising agents  
Reacts with bases

### 10.6 Hazardous decomposition products

None if used as intended.

With prolonged heating above 250°C (referring to polymethyl methacrylate), hazardous decomposition products (e.g. methyl methacrylate, oxidised hydrocarbons, carbon monoxide, carbon particles and carbon dioxide) can form.

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## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

For the product, no toxicological information is available. The information refers to the admixed adipic acid.

<b>Acute oral toxicity</b>	LD <sub>50</sub> 5.560 mg/kg - rat Not classified as harmful if swallowed.
<b>Acute inhalation toxicity</b>	LC <sub>50</sub> - 4h: > 7.7 mg/l - rat Dust / at this dose, mortality was not observed. Not classified as harmful after inhalation.
<b>Acute dermal toxicity</b>	LD <sub>50</sub> : > 7.940 mg/kg - rat At this dose, mortality was not observed. Not classified as harmful after contact with skin.
<b>Skin corrosion/irritation</b>	Slight irritation
<b>Serious eye damage/irritation</b>	Risk of serious damage to eyes
<b>Respiratory or skin sensitisation</b>	guinea pigs No skin sensitisation reaction was observed.
<b>Mutagenicity</b>	Genotoxicity in vitro: In vitro tests did not show any mutagenic effects Genotoxicity in vivo: In vivo tests did not show any mutagenic effects
<b>Carcinogenicity</b>	rat Study results following oral administration give no indication of any carcinogenic potential.
<b>Reproduction toxicity</b>	Toxicity for reproduction: no reproduction toxicity Developmental toxicity: rat/mouse/rabbit No teratogenic (harmful to development) effect has been observed.
<b>Aspiration hazard</b>	No data available
<b>Specific target organ toxicity – single exposure</b>	The substance or mixture is not classified as having target organ toxicity in the event of single exposure.
<b>Specific target organ toxicity – repeated exposure</b>	Oral exposure 24 months - rat NOAEL: 750 mg/kg Assessment: The substance or mixture is not classified as having target organ toxicity in the event of repeated exposure.

## SECTION 12: Ecological information

### 12.1 Toxicity

For the product, no ecotoxicological data is available. Due to the consistency of the product, no negative ecological effects are to be expected based on current knowledge.

The following information refers to the admixed adipic acid.

It is assumed that adipic acid has a low toxicity for aquatic organisms.

Toxicity for fish:	LC50 - 96 h: > 1.000 mg/l Danio rerio (zebrafish)
Toxicity for daphnia:	EC50 - 48 h: 46 mg/l Daphnia magna (great water flea) NOEC - 21 days: 6.3 mg/l Daphnia magna (great water flea)
Toxicity for aquatic plants:	EC50 - 72 h: 59 mg/l Pseudokirchneriella subcapitata
Toxicity for microorganisms:	EC50 - 3 h: 4.747 mg/l - activated sludge

#### Ecotoxicological assessment

Acute aquatic toxicity: Harmful to aquatic organisms

### 12.2 Persistence and degradability

The product is easily biodegradable in soil (referring to adipic acid)

### 12.3 Bioaccumulative potential

No data available.

### 12.4 Mobility in soil

No data available.

### 12.5 Results of PBT and vPvB assessment

A PBT/vPvB assessment is not available, since a chemical safety assessment is not required / has not been carried out.

### 12.6 Other adverse effects

Unknown.

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## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

It can be disposed of together with household waste in compliance with local regulations. Collect the product dry. Do not dispose of into drains or surface waters.

#### Recommendation

Agree on the correct waste code with the disposal company.

#### Waste code according to the European List of Waste (LoW)

070199 – Wastes from the manufacture, preparation, distribution and use of organic basic chemicals

#### Treatment of purified/unclean packaging

150106 – mixed packaging suitable for material recycling

## SECTION 14: Transport information

With respect to transport regulations, the product is not hazardous (ADR, RID, ADN, IMDG, ICAO/IATA).

### 14.1 UN number

Not applicable

### 14.2 UN proper shipping name

Not applicable

### 14.3 Transport hazard class(es)

Not applicable

### 14.4 Packing group

Not applicable

### 14.5 Environmental hazards

Not applicable

### 14.6 Special precautions for user

No special measures

### 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code

Not applicable

## SECTION 15: Regulatory information

### 15.1 Safety, health and environment regulations/legislation for the substance or mixture

The product does not fall within the registration requirement of EC Regulation 1907/2006 (REACH).

#### EU regulations

#### National regulations

When handling this product, the following valid legal provisions are i. a. to be complied with

VwVwS: Water hazard class 1 - slightly hazardous for water

Hazardous Substances Ordinance (GefStoffV)

TRGS 500 "precautions"

TRGS 510 "storage of hazardous substances in portable containers"

TRGS 900 "Work-place related limit values"

Technical Instructions on Air Quality Control

Regulation on occupational health care (ArbMedVV)

Basic principles of the Institution for Statutory Accident Insurance and Prevention on occupational medical examinations

### 15.2 Chemical safety assessment

A safety assessment has not been carried out.

## SECTION 16: Other information

### 16.1 Changes to the previous version

Removal of outdated guidelines under point 2 and point 3

Editorial revision

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## 16.2 Abbreviations and acronyms

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ArbMedVV	Verordnung zur arbeitsmedizinischen Vorsorge (Regulation on occupational health care)
BG	Berufsgenossenschaft (Institution for Statutory Accident Insurance and Prevention)
CAS	Chemical Abstracts Service
CLP	Classification, labelling and packaging (Regulation (EC) No. 1272/2008)
ECHA	European Chemicals Agency
GefStoffV	Gefahrstoffverordnung (Hazardous Substances Ordinance)
IATA	International Air Transport Association
ICAO	International Civil Aviation Organisation
IMDG	International agreement on the Maritime transport of Hazardous Goods
PBT	Persistent, bio-accumulative and toxic
REACH	Registration, Evaluation and Authorisation of Chemicals (Regulation (EC) 1907/2006)
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
TRGS	Technische Regeln für Gefahrstoffe (Technical rules for dangerous substances)
VCI	Verband der chemischen Industrie e.V. (Registered association of the chemical industry)
vPvB	Very persistent, very bioaccumulative
VwVwS	Verwaltungsvorschrift wassergefährdende Stoffe (Administrative Regulation on the Classification of Substances hazardous to Waters into Water Hazard Classes)

## 16.3 Literature references and sources of data

With regard to the sources of key data and technical information we refer, among others, to the information provided by the raw material supplier/ manufacturer or the ECHA Classification and Labelling Inventory

## 16.4 Methods compliant with article 9 of Regulation (EC) No. 1272/2008 used to evaluate information for the purpose of classification

No own assessment of the mixture has been made.

Bridging principles for the classification of mixtures according to Regulation (EC) No. 1272/2008, article 6, paragraph 5 have been applied.

The classification of the water pollution class of this mixture has been carried out according to Point 3, Annex 4, of the VwVwS.

## 16.5 Training appropriate for workers

In addition to training programmes for employees on the topics of health, safety and environment, companies must ensure that their employees read and understand this safety data and are able to implement its requirements.

## 16.6 Disclaimer

The information contained in this safety data sheet describes the safety requirements of our product and is based on our current level of knowledge. It implies no guarantee of the product properties and does not justify a contractual legal relationship. This safety data sheet serves the user as reference information. Although this safety data sheet has been drawn up with great care, no guarantee for data accuracy, and no liability for the consequences of printing, typeset or transcription errors can be accepted. The existing laws, regulations and rule systems, including those not mentioned in this data sheet, must be complied with by the recipient of our products under their own responsibility.