



**SAFETY DATA SHEET
NASA**

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name NASA
Chemical name Glyphosate 36% SL

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

Identified uses Herbicide

1.3. Details of the supplier of the safety data sheet

Supplier Hockley Agro
Hockley House
3 Longstone Road
Ashbrook Office Park
Manchester
M22 5LB
TEL: +44 (0) 161 209 7400
FAX: +44 (0) 161 209 7401
sds@hockley.co.uk

Manufacturer AGRIA S.A.
Asenovgradsko shose, 4009 Plovdiv
032 273 500, the phone number is available only during office hours
+ 359 32 63 83 77
agria@agria.bg

1.4. Emergency telephone number

Emergency telephone +44 (0)800 246 1274 (24 hours)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Not Classified
Health hazards Not Classified
Environmental hazards Aquatic Chronic 2 - H411

2.2. Label elements

Hazard pictograms



Hazard statements H411 Toxic to aquatic life with long lasting effects.

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Precautionary statements P273 Avoid release to the environment.
P391 Collect spillage.
P501 Dispose of contents/ container in accordance with national regulations.

2.3. Other hazards

SECTION 3: Composition/information on ingredients

3.2. Mixtures

N-(PHOSPHONOMETHYL)GLYCINE, COMPOUND WITH 2-PROPYLAMINE (1:1)	42.0%
CAS number: 38641-94-0	EC number: 254-056-8
Classification Aquatic Chronic 2 - H411	Classification (67/548/EEC or 1999/45/EC) N;R51/53.
GLYPHOSATE (ISO)	31.0%
CAS number: 1071-83-6	EC number: 213-997-4
Classification Eye Dam. 1 - H318 Aquatic Chronic 2 - H411	Classification (67/548/EEC or 1999/45/EC) Xi;R41 N;R51/53
Betaines, C12-14 (even numbered)-alkyldimethyl	≤10.0%
CAS number: 66455-29-6	
Classification Skin Irrit. 2 - H315 Eye Dam. 1 - H318 Aquatic Chronic 3 - H412	

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation Remove person to fresh air and keep comfortable for breathing. Get medical attention if any discomfort continues.

Ingestion IF SWALLOWED: Get medical attention. Do not induce vomiting.

Skin contact Remove contaminated clothing immediately and wash skin with soap and water. Wash contaminated clothing before reuse. Get medical attention if irritation persists after washing.

Eye contact IF IN EYES: Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. Continue to rinse for at least 15 minutes. Get medical attention if irritation persists after washing.

Protection of first aiders First aid personnel should wear appropriate protective equipment during any rescue.

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

Skin contact May cause skin irritation.

Eye contact May cause eye irritation.

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

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Notes for the doctor Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media Extinguish with foam, carbon dioxide, dry powder or water fog.

Unsuitable extinguishing media High volume water jet.

5.2. Special hazards arising from the substance or mixture

Specific hazards The product is not flammable.

Hazardous combustion products Thermal decomposition or combustion products may include the following substances: Oxides of carbon. Oxides of nitrogen. Oxides of phosphorus.

5.3. Advice for firefighters

Protective actions during firefighting Containers close to fire should be removed or cooled with water.

Special protective equipment for firefighters Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Wash contaminated clothing before reuse.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel Keep unnecessary personnel away.

For emergency responders Eliminate all ignition sources (flame or spark). Provide local and general exhaust ventilation. Use protective clothing and gloves, respiratory mask with an effective particulate filter, chemical goggles for eye protection

6.2. Environmental precautions

Environmental precautions Dangerous for the environment. Avoid the spillage or runoff entering drains, sewers or watercourses. Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Contain and absorb spillage with sand, earth or other non-combustible material. Collect spillage for reclamation or disposal in sealed containers via a licensed waste contractor. Containers with collected spillage must be properly labelled with correct contents and hazard symbol. Avoid contamination of ponds or watercourses with washing down water.

6.4. Reference to other sections

Reference to other sections For waste disposal, see Section 13. For personal protection, see Section 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions For professional users only. Do not handle until all safety precautions have been read and understood. Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate. For personal protection, see Section 8.

Advice on general occupational hygiene When using do not eat, drink or smoke. Take off contaminated clothing and wash it before reuse. Wash skin thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

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Storage precautions	Store in accordance with national regulations. Store in tightly-closed, original container in a dry, cool and well-ventilated place. Unsuitable container materials: Common metals.
Storage class	Unspecified storage.
7.3. Specific end use(s)	
Specific end use(s)	The identified uses for this product are detailed in Section 1.2. Refer to the label and/or leaflet

SECTION 8: Exposure controls/Personal protection

8.1. Control parameters

Occupational exposure limits

None

8.2. Exposure controls

Protective equipment



Appropriate engineering controls

Refer to CoSHH (Control of Substances Hazardous to Health) assessment. Engineering controls should be used in preference to personal protective equipment wherever practicable. Refer to CoSHH Essentials.

Eye/face protection

Tight-fitting safety glasses. Personal protective equipment for eye and face protection should comply with European Standard EN166.

Hand protection

To protect hands from chemicals, gloves should comply with European Standard EN374. Gloves made from the following material may provide suitable chemical protection: For work of short duration or where a high degree of manual dexterity is needed, use protective gloves made of: Polyvinyl chloride (PVC). For work of long duration or where mechanical processes present a risk, use protective gloves made of: Nitrile rubber. Thickness: > 0.4 mm

Other skin and body protection

Wear appropriate clothing to prevent any possibility of liquid contact and repeated or prolonged vapour contact.

Hygiene measures

Good personal hygiene procedures should be implemented.

Respiratory protection

Wear a suitable dust mask. Disposable filtering half mask respirators should comply with European Standard EN149 or EN405.

Thermal hazards

No specific recommendations.

Environmental exposure controls

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Light yellow to amber liquid
Colour	Yellow. to Amber.
Odour	Almost odourless. Amine.
Odour threshold	No information available.
pH	pH (diluted solution): 4.5 1% solution
Melting point	Not relevant.

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Initial boiling point and range	100°C
Flash point	Not determined. Not relevant.
Evaporation rate	Not determined.
Evaporation factor	Not determined.
Flammability (solid, gas)	Not relevant.
Upper/lower flammability or explosive limits	Not relevant.
Vapour pressure	Not relevant.
Vapour density	Not relevant.
Relative density	1.1600 ÷ 1.1750 g/cm ³ @ 20°C
Solubility(ies)	Completely soluble in water.
Partition coefficient	Technically not feasible.
Auto-ignition temperature	Not relevant.
Decomposition Temperature	100°C
Explosive properties	Not considered to be explosive.
Oxidising properties	Does not meet the criteria for classification as oxidising.

9.2. Other information

Other information Corrosive to mild steel, galvanized steel and zinc

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity There are no known reactivity hazards associated with this product.

10.2. Chemical stability

Stability Stable at normal ambient temperatures and when used as recommended.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions Under normal conditions of storage and use, no hazardous reactions will occur. In contact with some metals can generate hydrogen gas, which can form explosive mixtures with air.

10.4. Conditions to avoid

Conditions to avoid Avoid exposure to high temperatures or direct sunlight. Avoid contact with acids and alkalis.

10.5. Incompatible materials

Materials to avoid Avoid contact with the following materials: Strong acids. Strong alkalis. May be corrosive to metals.

10.6. Hazardous decomposition products

Hazardous decomposition products Heating may generate the following products: Oxides of the following substances: Phosphorus. Nitrogen. Carbon.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

Notes (oral LD₅₀) LD₅₀ >2000 mg/kg, Oral, Rat

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Acute toxicity - dermal

Notes (dermal LD₅₀) LD₅₀ >2000 mg/kg, Dermal, Rat

Acute toxicity - inhalation

Notes (inhalation LC₅₀) LC₅₀ >4.96 mg/l, Inhalation, Rat

Skin corrosion/irritation

Skin corrosion/irritation Not irritating. Rabbit

Serious eye damage/irritation

Serious eye damage/irritation Not irritating. Rabbit

Skin sensitisation

Skin sensitisation Not classified. Rabbit

Germ cell mutagenicity

Genotoxicity - in vivo Based on available data the classification criteria are not met.

Carcinogenicity

Carcinogenicity Based on available data the classification criteria are not met.

Reproductive toxicity

Reproductive toxicity - fertility Based on available data the classification criteria are not met.

Reproductive toxicity - development Based on available data the classification criteria are not met.

Specific target organ toxicity - single exposure

STOT - single exposure Based on available data the classification criteria are not met.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Based on available data the classification criteria are not met.

Aspiration hazard

Aspiration hazard Not relevant.

SECTION 12: Ecological information

12.1. Toxicity

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hours: 6.09 mg/l, *Oncorhynchus mykiss* (Rainbow trout)

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: 28.62 mg/l, *Daphnia magna*

Acute toxicity - aquatic plants EC₅₀, 72 hours: 34.3 mg/m³, Algae

Acute toxicity - terrestrial LD₅₀ (oral), : >2000 mg/kg, *Anas Platyrhynchos* (Mallard duck)
LD₅₀ (oral), LD₅₀ (contact), : >100 µg / bee, *Apis Mellifera* (Honeybee)
LD₅₀ (contact), : >5000 mg/kg, *Eisenia Fetida* (Earthworm)

12.2. Persistence and degradability

Persistence and degradability The product is not readily biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential The product does not contain any substances expected to be bioaccumulating.

Partition coefficient Technically not feasible.

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12.4. Mobility in soil

Mobility The product contains substances which are bound to particulate matter and are retained in soil.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

12.6. Other adverse effects

Other adverse effects None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information Dangerous for the environment. External recovery, treatment, recycling and disposal of waste should comply with all applicable local and/or national regulations. Waste, residues, empty containers, discarded work clothes and contaminated cleaning materials should be collected in designated containers, labelled with their contents. Disposal of this product, process solutions, residues and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any local authority requirements.

Disposal methods Place waste in labelled, sealed containers. Dispose of waste product or used containers in accordance with local regulations. Avoid the spillage or runoff entering drains, sewers or watercourses. Do not reuse empty containers.

Waste class 07 04 01* aqueous washing liquid and mother liquors 15 01 10* packaging containing residues of or contaminated by dangerous substances

SECTION 14: Transport information

General Environmentally Hazardous Substance Mark NOT required for single packagings and combination packagings containing inner packagings ≤ 5L for liquids, or ≤ 5kg for solids. (ADR special provision 375, IMDG code 2.10.2.7, IATA special provision A197)

Marine pollutants packaged in single or combination packagings containing a net quantity per single or inner packaging of 5 L or less for liquids or having a net mass per single or inner packaging of 5 kg or less for solids are not subject to any other provisions of the Code relevant to marine pollutants provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8. In the case of marine pollutants also meeting the criteria for inclusion in another hazard class all provisions of this Code relevant to any additional hazards continue to apply.

14.1. UN number

UN No. (ADR/RID)	3082
UN No. (IMDG)	3082
UN No. (ICAO)	3082
UN No. (ADN)	3082

14.2. UN proper shipping name

Proper shipping name (ADR/RID) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

Proper shipping name (IMDG) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

Proper shipping name (ICAO) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

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Proper shipping name (ADN) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

14.3. Transport hazard class(es)

ADR/RID class	9
ADR/RID classification code	M6
ADR/RID label	9
IMDG class	9
ICAO class/division	9
ADN class	9

Transport labels



14.4. Packing group

ADR/RID packing group	III
IMDG packing group	III
ICAO packing group	III
ADN packing group	III

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant



14.6. Special precautions for user

EmS	F-A, S-F
ADR transport category	3
Emergency Action Code	•3Z
Hazard Identification Number (ADR/RID)	90
Tunnel restriction code	(-)

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

SECTION 15: Regulatory information

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

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National regulations

Transport

Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 (SI 2009 No 1348) Merchant Shipping (Dangerous Goods and Marine Pollutants) Regulations 1997 (SI 1997 No 2367) Air Navigation Dangerous Goods Regulations 2002 (SI 2002 No 2786)

Supply and Use

Chemical (Hazard Information and Packaging for Supply) Regulations 2009 (SI 2009 No 716) Chemical (Hazard Information and Packaging for Supply) (Northern Ireland) Regulations 2009 Control of Substances Hazardous to Health Regulations 2002 (SI 2002 No 2677) EH40 Occupational Exposure Limits - Table 1 List of approved workplace exposure limits Control of Pesticide Regulations 1986 Dangerous Substances and Explosive Atmospheres Regulations 2002

Waste Treatment

Environmental Protection Act 1990, Part II Environmental Protection (Duty of Care) Regulations 1991 The Waste Management Licensing Regulations 1994 (as amended) Hazardous Waste Regulations 2005 (Replacing Special Waste Regulations 1996 as amended) Landfill Directive Regulation on Substances That Deplete the Ozone Layer 1994 (EEC/3093/94) Water Resources Act 1991 Anti-Pollution Works Regulations 1999

EU legislation

COMMISSION REGULATION (EU) No 547/2011 of 8 June 2011 implementing Regulation (EC) No 1107/2009 of the European Parliament and of the Council as regards labelling requirements for plant protection products
EC Regulation 1107/2009 of the European Parliament and of the Council of 21 October 2009 concerning the placing of plant protection products (as amended)
Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).

15.2. Chemical safety assessment

A chemical safety assessment has been carried out.

SECTION 16: Other information

Revision date 21/02/2019

SDS number 20832

Hazard statements in full H315 Causes skin irritation.
H318 Causes serious eye damage.
H411 Toxic to aquatic life with long lasting effects.
H412 Harmful to aquatic life with long lasting effects.

The information contained within this Safety Data Sheet is in accordance with the guidelines established by Regulation (EU) 1907/2006 and Regulation (EU) 2015/830 amending Regulation (EU) No 1907/2006 and any subsequent amendments. This data sheet complements the user's instructions, but does not replace them. The information it contains is based on the knowledge available about the product concerned at the time it was compiled. Users are further reminded of the possible risks of using a product for purposes other than those for which it was intended. The required information complies with current EEC legislation. Addressees are requested to observe any additional national requirements. This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.