



Solve 6235

Safety Data Sheet

Date Issued: 06/13/2016

Date Revised: 09/29/2015

1. **IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**

PRODUCT NAME: **SOLVE 6235**

Use of mixture: Flocculating agent

COMPANY: WaterSolve, LLC, 5031 68th Street, Caledonia, Michigan 49316, USA

For Product information call 616-575-8693. www.gowatersolve.com

For Chemical Emergency Spill, Leak, Fire, Exposure, or Accident

Call CHEMTREC Day or Night

Within USA and Canada: 1-800-424-9300

Outside USA and Canada: +1 703-527-3887 (collect calls accepted)

2. **HAZARDS IDENTIFICATION**

Classification of the substance or mixture

This material is not hazardous under the criteria of the Federal OSHA Hazard Communication Standard's (29CFR 1910.1200) implementation of the Globally Harmonized System (GHS), i.e., material is not dangerous substance or mixture requiring GHS classification according to the US GHS regulations.

GHS-Labeling

Product is not hazardous under US GHS.

Other hazards which do not result in classification

Advice: Forms slippery/greasy layers with water.

Potential environmental effects: This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

3. **COMPOSITION/INFORMATION ON INGREDIENTS**

Substances/Mixtures

Chemical nature Cationic polyacrylamide.

Hazardous components

CHEMICAL NAME	CAS-No.	CONCENTRATION
Adipic acid	124-04-9	0-5%

4. **FIRST AID MEASURES**

Description of first aid measures

General advice: Show this data sheet to the doctor in attendance.

Inhalation:

Remove to fresh air. If there is difficulty in breathing, medical advice is required.

Skin contact:

Wash off immediately with plenty of water and soap.

Eye contact:

Rinse immediately with plenty of water for at least 15 minutes.

Ingestion:

Material is not expected to be harmful by ingestion. No hazards which require special first aid measures.

Most important symptoms and effects, both acute and delayed.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media:

Use water spray, water mist, carbon dioxide (CO₂) or dry chemical.

Unsuitable extinguishing media: None

Special hazards arising from the substance or mixture.

Dust may be explosive if mixed with air in critical proportions and in the presence of a source of ignition.

Special protective actions for fire-fighters

In the event of fire, wear self-contained breathing apparatus. Use NIOSH/MSHA approved respiratory protection.

Further information

In the event of fire, cool tanks with water spray.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. For personal protection see section 8.

Environmental precautions

Try to prevent the material from entering drains or water courses.

Methods and materials for containment and cleaning up

Sweep up and shovel into suitable containers for disposal. Flush with plenty of water. Prevent product from entering drains.

7. HANDLING AND STORAGE

Precautions for safe handling

Handle in accordance with good industrial hygiene and safety practice. The product is hygroscopic. Protect from moisture.

Conditions for safe storage, including any incompatibilities

Store at room temperature in original container.

Materials for packaging

Unsuitable material: To avoid product degradation and equipment corrosion, do not use iron, copper or aluminum containers or equipment.

Materials to avoid:

Strong oxidizing agents

Storage stability:

Storage temperature 40-80°F

Other data

Stable under recommended storage conditions. Reason; integrity

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value	Form of exposure	Control Parameters	Update	Basis
Adipic acid	124-04-9	TWA		5 mg/m ³	2007-01-01	ACGIH

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and immediately after handling the product. Do not breathe vapours/dust. Avoid contact with skin and eyes. Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation.

Individual protection measures, such as personal protective equipment

Respiratory protection:

Use NIOSH/MSHA approved respiratory protection. When there is potential for airborne exposures in excess of applicable limits, wear NIOSH/MSHA approved respiratory protection.

Hand protection

Glove material: impervious gloves. Permeability tests are not available for this product. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.

Skin/Body protection:

Productive clothing.

Eye protection:

Safety goggles

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state:	solid, powder
Color:	off white
Odour:	odourless
pH:	3 - 5 (0.5 %) as aqueous solution
Melting Point/Range:	No data available
Initial boiling point/range:	Not applicable
Flash point:	Not applicable
Evaporation Rate:	Not applicable
Explosive properties	
Lower explosion limit	No data available

Upper explosion limit	No data available
Vapor Pressure:	Not applicable
Relative Vapor Density:	Not applicable
Bulk density:	750 kg/m ³
Water solubility(ies):	Limited by viscosity
Partition coefficient (n-octanol/water):	Not applicable
Decomposition temperature:	>302°F
Oxidizing potential:	The substance or mixture is not classified as oxidizing.
Saturation in Air (% Vol):	Not applicable
Volatile organic content (VOC):	Not applicable
Surface tension:	Not applicable

10. **STABILITY AND REACTIVITY**

Reactivity

Chemical stability

Possibility of hazardous reactions

Hazardous reactions: Hazardous polymerization does not occur.

Conditions to avoid: Avoid contact with alkaline materials which will degrade the polymer.

Incompatible materials: Strong oxidizing agents

Hazardous Decomposition

Products: Carbon oxides (CO_x) Nitrogen oxides (NO_x), Ammonia, Hydrogen chloride (HCl)

Thermal decomposition: >302°F

11. **TOXICOLOGICAL INFORMATION**

Information on toxicological effects

Acute oral toxicity

Conclusion: The acute toxicological results displayed may not be the results of actual testing of this material but based on a similar tested material.

LD50 /Rat/5,000 mg/kg Remarks: estimated

Acute oral toxicity:

Adipic acid:

LD50/rat/>5,000 mg/kg

Acute inhalation toxicity:

LC50/rat/4h/>20 mg/l Remarks: estimated

Acute dermal toxicity:

LD50/Rabbit/>10,000 mg/kg Remarks: estimated

Acute dermal toxicity:

Adipic acid:

LD50/Rabbit/>5,000 mg/kg

Skin corrosion/irritation:

Conclusion: No skin irritation

Skin corrosion/irritation:

Adipic acid:
No skin irritation

Serious eye damage/eye irritation:

Conclusion: No eye irritation

Serious eye damage/eye irritation:

Adipic acid:
Result: Irritating to eyes.

Respiratory or skin sensitization:

Conclusion: Not sensitizing

Germ cell mutagenicity

Genotoxicity in vivo:

Conclusion: Based on available data, the classification criteria are not met.

Carcinogenicity:

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

Reproductive toxicity

Conclusion: Based on available data, the classification criteria are not met.

12. **ECOLOGICAL INFORMATION**

Ecotoxicity effects

Aquatic toxicity:

This material is not classified as dangerous for the environment. The effects on aquatic organisms are due to an external (non-systemic) mode of action and are significantly reduced (by a factor of 7-20) within 30 minutes due to the binding of the product to dissolved organic carbon and inorganic sorbents such as clays and silts. Ecotoxicological information provided is based on a structurally or compositionally similar product.

LC50/96h/ Branchydanio rerio (Zebra fish)/Acute toxicity/OECD Test Guideline 203: > 1 – 10 mg/l

EC50/48h/ Daphnia magna (Water flea)/Immobilization/OECD Test Guideline 202: > 10 - 100 mg/l

Algae/Growth inhibition/OECD Test Guideline 201: Remarks: Due to the cationicity of the polymer, test is not appropriate.

Adipic acid:

LC50/96h/Fish: > 100 mg/l

EC50/48h/Water flea (*Daphnia*): 85.6 mg/l

EC50/72h/Algae: 31.3 mg/l

Toxicity to other organisms

No data available

Persistence and degradability:

Biological degradability: Modified Sturm Test/OECD Test Guideline 301B/28d: <70%

The polymeric ingredient is not readily biodegradable, but degradable by hydrolysis.

Biological degradability:

Adipic acid: Not readily biodegradable.

Bioaccumulative potential

Bioaccumulation is unlikely. Because of the high molecular weight of the polymer diffusion through biological membranes is very small.

Partition coefficient: n-octanol/water: Not applicable

Adipic acid: Does not bioaccumulate.
Partition coefficient: n-octanol/water: log Pow: 0.093

Mobility in soil

Water solubility: Limited by viscosity.
Surface tension: Not applicable

Other adverse effects:

No information available.

Additional ecological information: Ecotoxicological information provided is based on a structurally or compositionally similar product. This material is not classified as dangerous for the environment. The effects on aquatic organisms are due to an external (non-systemic) mode of action and are significantly reduced (by factor of 7-20) within 30 minutes due to the binding of the product to dissolved organic carbon and inorganic sorbents such as clays and silts.

13. **DISPOSAL CONSIDERATIONS**

Product

Recycling, recovery and reuse of materials is recommended if permitted by regulations. If recycling is not practicable, dispose of in compliance with local regulations.
EPA Hazardous Waste- NO

Contaminated packaging

Must be disposed of according to local and national regulations.

14. **TRANSPORT INFORMATION**

Land transport: Not classified as dangerous in the meaning of transport regulations.

Sea transport: Not classified as dangerous in the meaning of transport regulations.

Air transport: Not classified as dangerous in the meaning of transport regulations.

Special precautions for user

15. **REGULATORY INFORMATION**

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

SARA Title III Section 311 Categories

Immediate (Acute) Health effects: No

Delayed (Chronic) Health effects: No

Fire Hazard: No

Sudden Release of Pressure Hazard: No

Reactivity Hazard: No

SARA 302 Extremely Hazardous Substances

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
None present.

SARA 313- Specific Toxic Chemical Listings

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.
None Present.

US. CERCLA - Comprehensive Environmental Response, Compensation and Liability Act List

None Present

CERCLA Hazardous substance (Reportable Quantities)

None Present ()

0 kg

California Proposition 65

Acrylamide (79-06-1) < 0.063%

Remarks: This product contains a chemical or chemicals known to the state of California to cause cancer, birth defects or other reproduction harm.

Other regulations: None

Notification status:

All components of this product are included in the United States TSCA Chemical Inventory or are not required to be listed on the United States TSCA Chemical Inventory.

All components of this product are included in the Canada Domestic Substances List (DSL) or are not required to be listed on the Canada Domestic Substance List (DSL).

All components of this product are included on the European Inventory of Existing Chemical Substances (EINECS) or are not required to be listed on EINECS.

All components of this product are included in the Australian Inventory of Chemical Substances (AICS) or are not required to be listed on Australian Inventory of Chemical Substances (AICS).

All components of this product are included on the Chinese inventory or are not required to be listed on the Chinese Inventory.

All components of this product are included on the Japanese (ENCS) inventory or are not required to be listed on the Japanese (ENCS) inventory.

All components of this product are included in the Korean (ECL) inventory or are not required to be listed on the Korean (ECL) inventory.

All components of this product are included on the Philippine (PICCS) inventory or are not required to be listed on the Philippine (PICCS) inventory.

All components of this product are **NOT** included on the New Zealand Inventory of Chemical Substances.

This product's Taiwan Toxic Chemical Substances Control Act Inventory status has **NOT** been determined.

16. OTHER INFORMATION

NFPA Rating

Health 0

Fire 1

Reactivity 0

HMIS Rating:

Health: 0

Flammability: 0

Reactivity: 0

Training advice: Read the safety data sheet before using the product.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The 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, unless specified in the text. Reasonable care has been taken in the preparation of this information, but the manufacturer makes no warranty of merchantability or any other warranty, expressed or implied, with respect to this information. The manufacturer makes no representations and assumes no liability for any direct, incidental or consequential damages resulting from its use. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This information is for the specific material described only and may not be valid if the material is used in combination with any other materials or in any process. The user is responsible to determine the completeness of the information and suitability for the user's own particular use. The knowledge and belief of the company, the information is accurate and reliable as of the date indicated but the company makes no express or implied warranty of merchantability for the material or the information. The company makes no express or implied warranty of fitness for a purpose for the material or for the information. Users of any chemical should educate themselves on all aspects of its use by independent investigation of current scientific and medical knowledge that the material can be used safely. Both the supplier and manufacturer make no representations and assume no liability for any direct, incidental or consequential damages resulting from its use. Both the supplier and manufacturer make no warranty of merchantability or any other warranty, expressed or implied, with respect to this information. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This information is for the specific material described only and may not be valid if the material is used in combination with any other materials or in any process. The user is responsible to determine the completeness of the information and suitability for the user's own particular use. Users of any chemical should educate themselves on all aspects of its use by independent investigation of current scientific and medical knowledge that the material can be used safely. The buyer assumes all responsibility for using and handling the product in accordance with applicable federal, state and local regulations.

List of abbreviations and acronyms that could be, but not necessarily are, used in the safety data sheet:

ACGIH: American Conference of Industrial Hygienists
BEI: Biological Exposure Index
CAS Chemical: Abstracts Service (Division of the American Chemical Society)
CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act
CMR: Carcinogenic, Mutagenic or Toxic for Reproduction
DOT: Department of Transportation
FG: Food grade
FIFRA: Federal Insecticide, Fungicide, and Rodenticide Act
GHS: Globally Harmonized System of Classification and Labeling of Chemicals
H-statement: Hazard Statement
HMIRC: Hazardous Materials Information Review Commission
HMIS: Hazardous Materials Identification System
IATA: International Air Transport Association
IATA-DGR: Dangerous Goods Regulation by the "International Air Transport Association" (IATA)
ICAO: International Civil Aviation Organization
ICAO-TI (ICAO): Technical Instructions by the "International Civil Aviation Organization"
IMDG: International Maritime Code for Dangerous Goods
ISO: International Organization for Standardization
logPow: octanol-water partition coefficient
LCxx: Lethal Concentration, for xx percent of test population
LDxx: Lethal Dose, for xx percent of test population
ICxx: Inhibitory Concentration for xx of a substance
ECxx: Effective Concentration of xx
N.O.S.: Not otherwise specified
NFA: National Fire Protection Association
NIOSH: National Institute for Occupational Safety and Health
OECD: Organization for Economic Co-operation and Development
OEL: Occupational Exposure Limit
OSHA: Occupational Safety and Health Administration
P-Statement: Precautionary Statement
PBT: Persistent, Bioaccumulative and Toxic
PMRA: Health Canada Pest Management Regulatory Agency
PPE: Personal Protective Equipment
RTK: Right to Know
SDS: Safety Data Sheet
STEL: Short-term exposure limit

STOT: Specific Target Organ Toxicity
TLV: Threshold Limit Value
TWA: Time-weighted average
VPVB: Very Persistent and Very Bioaccumulative
WEL: Workplace Exposure Level
WHMIS: Workplace Hazardous Materials Information System