

# Silver bromide agbr structure



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- Safety:

Molecular

AgBr

Formula

Average mass

187. 772  
Da

Density

Boiling Point

Flash Point

Molar

Refractivity

Polarizability

Surface Tension

Molar Volume

- Experimental data
- Predicted – ACD/Labs
- Predicted – EPISuite
- Predicted – ChemAxon
- Experimental Physico-chemical Properties

- **Experimental Melting Point:**

432 °C Alfa Aesar

432 °C Alfa Aesar12110,

11425

- **Experimental Gravity:**

6.47 g/mL Alfa Aesar12110,

11425

- **Experimental Solubility:**

Practically

insoluble in water.

Insoluble in alcohol

and acids. Partially

soluble in

ammonia Alfa

Aesar11425

- Miscellaneous

- **Safety:**

50/53Alfa

Aesar11425,

12110

57-60Alfa

Aesar11425,

12110

9Alfa Aesar11425

H400-H410Alfa

Aesar11425

IrritantSynQuestM

047-9-03

P273-P391-

P501aAlfa

Aesar11425

WarningAlfa

Aesar11425

WARNING: Irritates

skin and eyesAlfa

Aesar11425,

12110

Predicted data is generated using the ACD/Labs Percepta Platform -  
PhysChem Module

Density:

Boiling Point:

Vapour Pressure:

Enthalpy of Vaporization:

Flash Point:

Index of Refraction:

Molar Refractivity:

#H bond acceptors: 0

#H bond donors: 0

#Freely Rotating Bonds: 0

#Rule of 5 Violations:

ACD/LogP:

ACD/LogD (pH 5. 5):

ACD/BCF (pH 5. 5):

ACD/KOC (pH 5. 5):

ACD/LogD (pH 7. 4):

ACD/BCF (pH 7. 4):

ACD/KOC (pH 7. 4):

Polar Surface Area:  $0 \text{ \AA}^2$

Polarizability:

Surface Tension:

Molar Volume:

Predicted data is generated using the US Environmental Protection Agency's

EPISuite™

Log Octanol-Water Partition Coef (SRC): Log Kow (KOWWIN v1. 67 estimate) = 0. 63Boiling Pt, Melting Pt, Vapor Pressure Estimations (MPBPWIN v1. 42): Boiling Pt (deg C): 519. 52 (Adapted Stein & Brown method)Melting Pt (deg C): 210. 30 (Mean or Weighted MP)VP(mm Hg, 25 deg C): 3. 1E-010 (Modified Grain method)Subcooled liquid VP: 2. 88E-008 mm Hg (25 deg C, Mod-Grain method)Water Solubility Estimate from Log Kow (WSKOW v1. 41): Water Solubility at 25 deg C (mg/L): 1. 465e+004log Kow used: 0. 63 (estimated)no-melting pt equation usedWater Sol Estimate from Fragments: Wat Sol (v1. 01 est) = 89954 mg/LECOSAR Class Program (ECOSAR v0. 99h): Class(es) found: Neutral OrganicsHenry's Law Constant (25 deg C) [HENRYWIN v3. 10]: Bond Method : IncompleteGroup Method: IncompleteHenry's LC [VP/WSol estimate using EPI values]: 5. 228E-015 atm-m<sup>3</sup>/moleLog Octanol-Air Partition Coefficient (25 deg C) [KOAWIN v1. 10]: Can Not Estimate (can not calculate Henry's LC)Probability of Rapid Biodegradation (BIOWIN v4. 10): Biowin1 (Linear Model) : 0. 6582Biowin2 (Non-Linear Model) : 0. 5848Expert Survey Biodegradation Results: Biowin3 (Ultimate Survey Model): 2. 7842 (weeks )Biowin4 (Primary Survey Model) : 3. 5768 (days-weeks )MITI Biodegradation Probability: Biowin5 (MITI Linear Model) : 0. 1535Biowin6 (MITI Non-Linear Model): 0. 0524Anaerobic Biodegradation Probability: Biowin7 (Anaerobic Linear Model): 0. 8361Ready Biodegradability Prediction: NOHydrocarbon Biodegradation (BioHCwin v1. 01):

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Structure incompatible with current estimation method! Sorption to aerosols (25 Dec C) [AEROWIN v1. 00]: Vapor pressure (liquid/subcooled): 3. 84E-006 Pa (2. 88E-008 mm Hg)Log Koa (): not availableKp (particle/gas partition coef. (m3/ug)): Mackay model : 0. 781 Octanol/air (Koa) model: not availableFraction sorbed to airborne particulates (phi): Junge-Pankow model : 0. 966 Mackay model : 0. 984 Octanol/air (Koa) model: not availableAtmospheric Oxidation (25 deg C) [AopWin v1. 92]: Hydroxyl Radicals Reaction: OVERALL OH Rate Constant = 0. 0000 E-12 cm3/molecule-secHalf-Life = -----Ozone Reaction: No Ozone Reaction EstimationFraction sorbed to airborne particulates (phi): 0. 975 (Junge, Mackay)Note: the sorbed fraction may be resistant to atmospheric oxidationSoil Adsorption Coefficient (PCKOCWIN v1. 66): Koc : 14. 3Log Koc: 1. 155 Aqueous Base/Acid-Catalyzed Hydrolysis (25 deg C) [HYDROWIN v1. 67]: Rate constants can NOT be estimated for this structure! Bioaccumulation Estimates from Log Kow (BCFWIN v2. 17): Log BCF from regression-based method = 0. 500 (BCF = 3. 162)log Kow used: 0. 63 (estimated)Volatilization from Water: Henry LC: 5. 23E-015 atm-m3/mole (calculated from VP/WS)Half-Life from Model River: 1. 535E+011 hours (6. 394E+009 days)Half-Life from Model Lake : 1. 674E+012 hours (6. 975E+010 days)Removal In Wastewater Treatment: Total removal: 1. 86 percentTotal biodegradation: 0. 09 percentTotal sludge adsorption: 1. 77 percentTotal to Air: 0. 00 percent(using 10000 hr Bio P, A, S)Level III Fugacity Model: Mass Amount Half-Life Emissions(percent) (hr) (kg/hr)Air 5. 25e-006 1e+005 1000 Water 36. 9 360 1000 Soil 63 720 1000 Sediment 0. 0702 3. 24e+003 0 Persistence Time: 593 hr

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